



**CITY OF EDGEWOOD
COUNCIL STUDY SESSION AGENDA**

Tuesday, August 20, 2024 – 7:00 PM ♦ City Hall – 2224 104th Avenue East ♦ Edgewood, WA
Meeting Link: <https://cityofedgewood-org.zoom.us/j/86916509308>

1. CALL TO ORDER

Roll Call, Pledge of Allegiance

2. COUNCIL BUSINESS

A. Equity, Diversity, and Inclusion (Trainings, Planning, etc.)

B. Meridian Corridor Study

C. Encampment Policy

D. Electrical Right-of-Way (ROW) Contract

E. Chrisella Rd Change Order

F. Interurban Trail Phase III Funding

G. Surface Water Rate Code Update

3. OTHER COUNCIL ITEMS

4. ADJOURN

Study Sessions are meetings for Council to review upcoming and pertinent business of the City, no action is taken by the City Council. Study Sessions are open to the public, but public input is reserved for the regular Council meetings

This meeting is accessible to persons with disabilities. For individuals who may require special accommodations, please contact City Hall at (253) 952.3299, 24 hours in advance.



City Of Edgewood Council Agenda Summary Sheet

Subject: Equity, Diversity, and Inclusion (Trainings, Planning, etc.)	Agenda Item #: 2.A
	For Agenda of: 8/20/2024
	Prepared by: Jill Schwerzler-Herrera
Attachments (list):	
Approval of Materials: Jill Schwerzler-Herrera Rachel Pitzel, Assistant City Administrator 8/12/2024 Dave Olson 8/12/2024	Expenditure Required: Amount Budgeted: Timeline: Topic to be added to all future Study Sessions (see item history below)

Summary Statement:

Item History:

The council has asked that this topic be discussed at all study sessions for the foreseeable future. As such, this has been a reoccurring agenda item since September of 2020.

Recommended Action:

N/A

Fiscal Note/Consideration:

N/A



City Of Edgewood Council Agenda Summary Sheet

Subject: Meridian Corridor Study	Agenda Item #: 2.B
	For Agenda of: 8/20/2024
	Prepared by: Jeremy Metzler
Attachments (list): 1. Meridian Corridor - City Council Meeting 8.20.2024 2. FINAL Meridian Avenue (SR 161) Corridor Study Report 3. FINAL Meridian Avenue (SR 161) Corridor Study Appendices (reduced)	
Approval of Materials: Jeremy Metzler Rachel Pitzel, Assistant City Administrator 8/12/2024 Dave Olson 8/12/2024	Expenditure Required:
	Amount Budgeted:
	Timeline: 08/20/2024 SS Discussion 08/27/2024 RCM - Public Hearing 09/03/2024 SS Discussion 09/10/2024 RCM Potential Action

Summary Statement:

The Final Report for the Meridian Corridor Study is now available for review on the City's website: www.cityofedgewood.org/414. Tonight's presentation is a recap of the final recommendation presented to the City Council in April, in preparation for a public hearing scheduled at next week's regular meeting. This report is scheduled for potential action at the September 10, 2024, Regular Council Meeting.

Item History:

Recommended Action:

Hold a discussion and provide staff direction to Meridian Corridor Study

Fiscal Note/Consideration:



MERIDIAN AVENUE (SR 161) CORRIDOR STUDY – FINAL REPORT

City Council Meeting
August 20, 2024

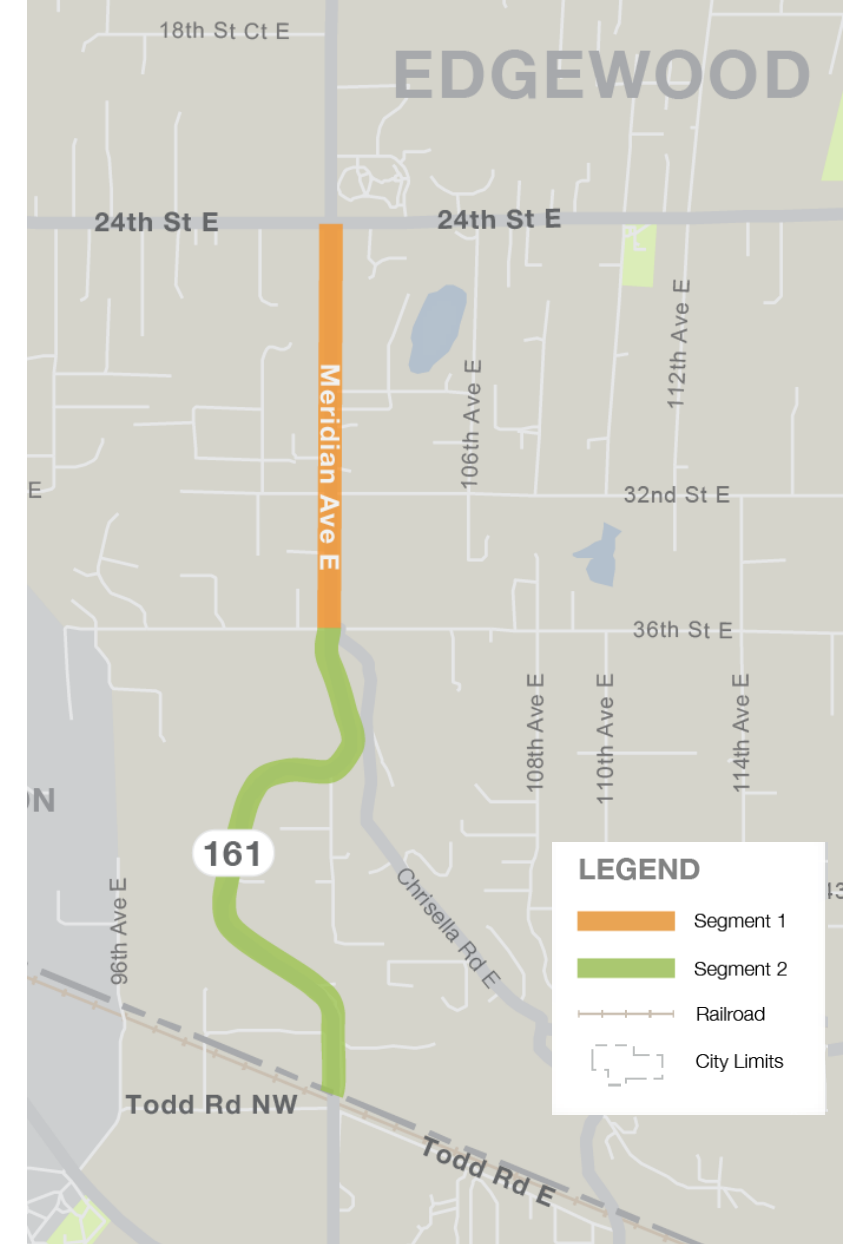


STUDY AREA

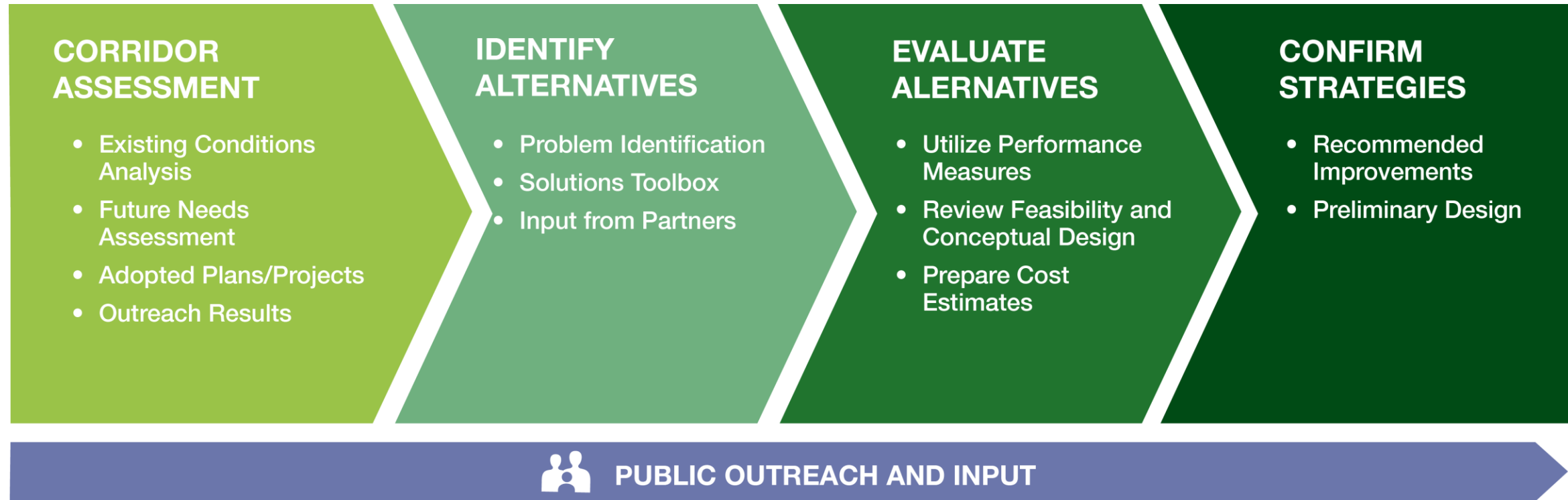
Meridian Avenue between 24th Street E and south City limits

The analysis will also include:

- Segment of the corridor through the Town Center from 24th Street to 18th Street Court E
- Short segment into City of Puyallup to account for influences from adjoining intersections
- Local and regional influences outside the corridor
 - Land use growth in the City and region
 - Changes to the regional highway system (SR 167 Extension)



STUDY APPROACH




WE ARE HERE

STUDY GOALS



Mobility and Safety

Develop a long-term strategy for addressing multimodal mobility, access and safety needs along the corridor



Land Use

Support the City's Town Center and other growth along the corridor



Community Involvement

Collaborate with WSDOT, stakeholders, and the public to confirm future needs



Natural Environment

Minimize impact to the environment

OUTREACH ACTIVITIES



Stakeholder Interviews



Corridor Working Group



Public Open House (#1)



Online Survey



**Presentation to
City Council**



Project Fact Sheet



**City Council
Meetings**



**Public Open House/
Workshop (#2)**



**Presentation to
Stakeholders**



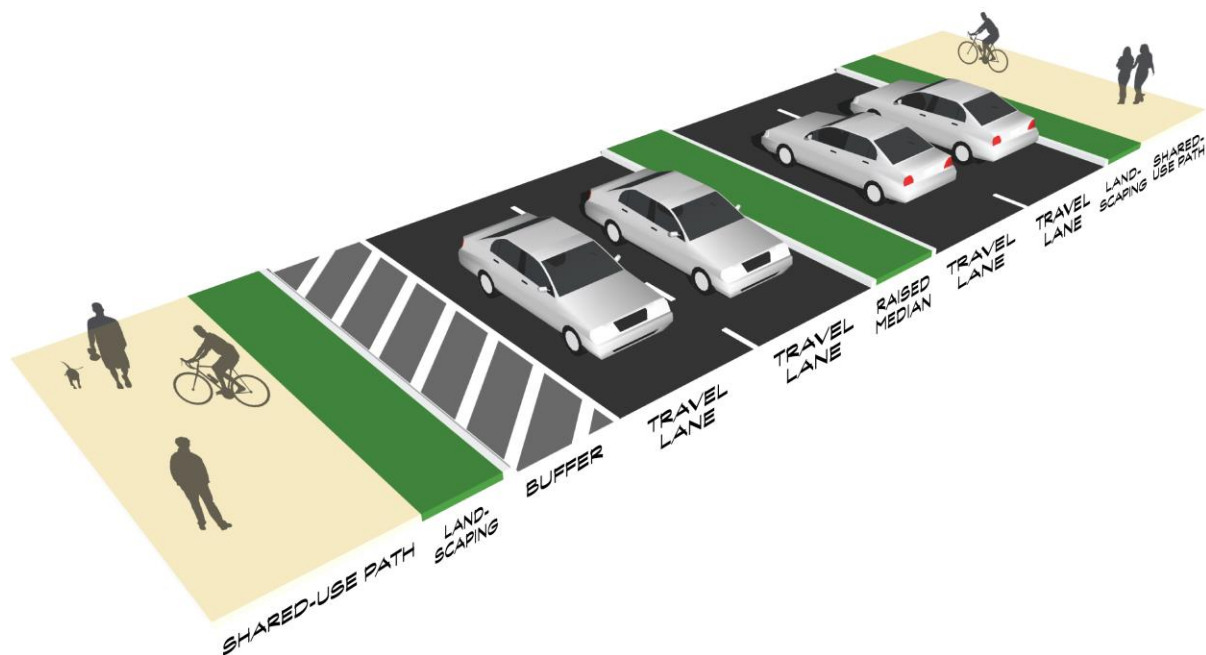
FINAL RECOMMENDATIONS

- Elements from the three design Alternatives combined to develop the final Recommendations

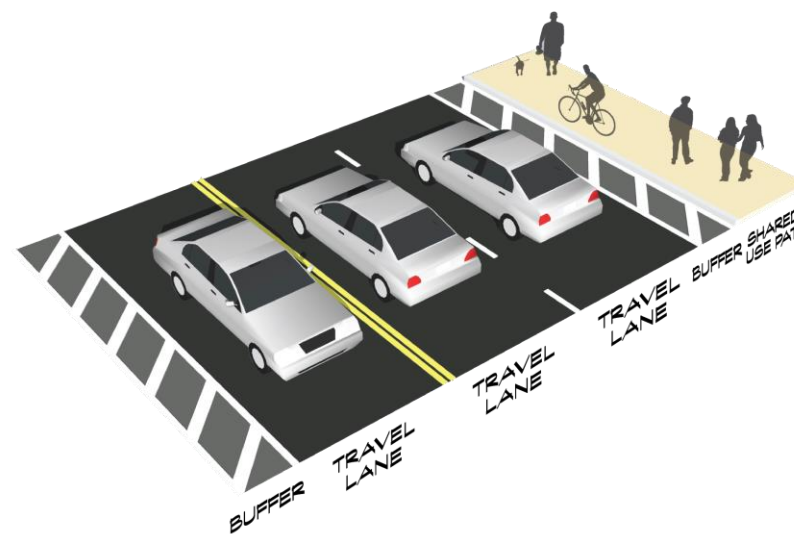
Recommendation	Segment 1	Segment 2
Lane Configuration	Widen to provide a 4-lane facility between 24th St and 36th St	Extend the 3-lane facility south to Spencer St (2 NB lanes and 1 SB lane)
Pedestrian/Bicycle Facilities	Install an off-street multi-use path along both sides of the roadway	Install an off-street multi-use path along the east side of the roadway
Midblock Crossings	Install signalized mid-block crossings at 29th St and north of 36th St	N/A
Intersection Control	Install roundabouts at 32nd St and 36th St	Realign the Dechaux Rd intersection (intersection control type to be determined when roadway alignment is finalized)
Access Management	Install non-linear (meandering median) between intersections	Install a southbound acceleration/ deceleration left-turn lane at 102nd St
Transit Facilities	Install in-line transit stops	Coordinate with Pierce Transit to discuss feasibility of NB bus stop installation at 102nd
UPRR Bridge	N/A	Maintain existing 2-lane bridge for NB traffic Construct new 2-lane bridge for SB traffic (allows for potential future widening of roadway and replacement of existing bridge) Construct new pedestrian/bicycle bridge

FINAL RECOMMENDATIONS

Segment 1 (combination of Alt. B & C)



Segment 2 (Alt A)



SEGMENT 1 FINAL RECOMMENDATIONS

- Elements from Alt A & B added to Alt C to develop final recommendations for Seg 1
- Off-street bike path added to recommended alternative based on community feedback

Project Goals	Evaluation Criteria	Alt A	Alt B	Alt C	Final Rec.
Segment 1					
Mobility and Safety	Intersection Operations				
	Roadway (Vehicle) Safety				
	Pedestrian Comfort/Safety				
	Bicycle Comfort/Safety				
	Accessibility (ADA Facilities, Crossings, etc.)				
	Effective Transit				
Land Use	Town Center Development				
	Effective Parallel Corridors				
	Local Business Access/Integration				
	Corridor Aesthetics				
Community Involvement/ Benefit	Community Support/Acceptance				
	Regional Mobility/Continuity/Resiliency				
	Constructability/Extendibility				
	Funding Availability/Grant Applicability				
Natural Environment	Minimal Environmental Impact				
	Stormwater Management				
Total (Raw Score)		19	22	24	26
Total (Weighted Score)		26.5	31	31.5	34.5

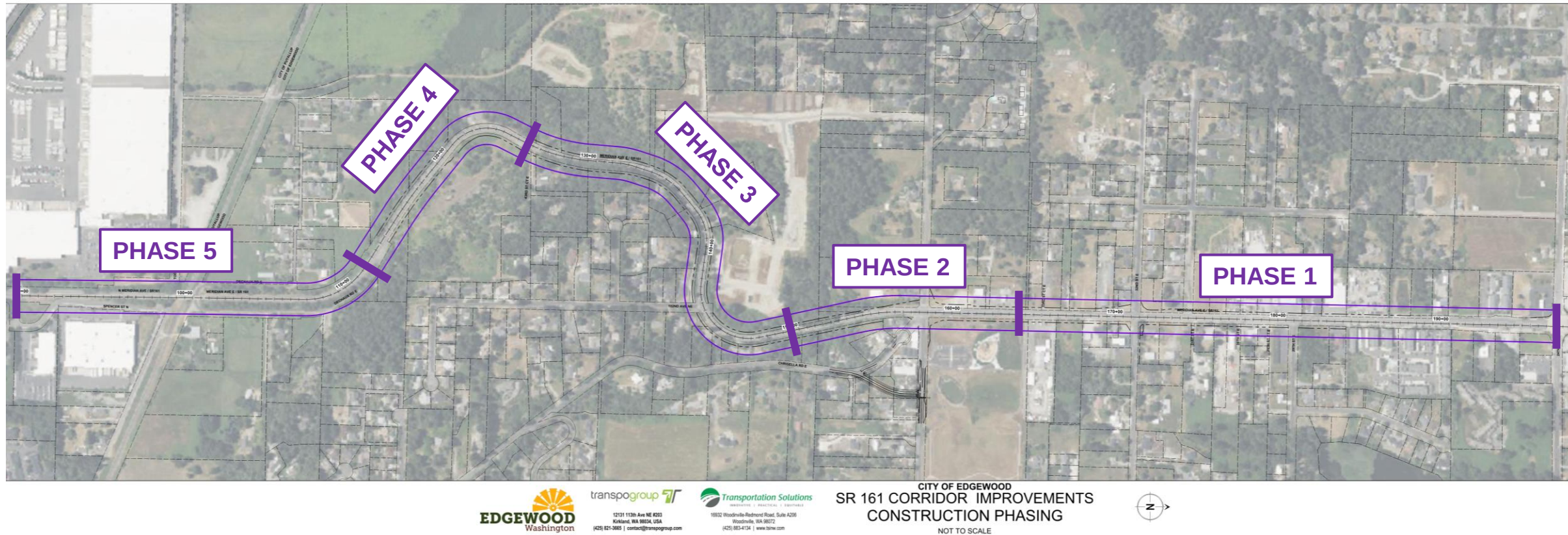
SEGMENT 2 FINAL RECOMMENDATIONS

- Elements from Alt B & C added to Alt A to develop final recommendations for Seg 1
- Roundabouts added to recommended alternative to calm traffic along Meridian
- Left-turn lane added to recommended alternative to improve safety at 102nd

Project Goals	Evaluation Criteria	Alt A	Alt B	Alt C	Final Rec.
Segment 2					
Mobility and Safety	Intersection Operations	○	●	◐	◐
	Roadway (Vehicle) Safety	◐	●	◐	◐
	Pedestrian Comfort/Safety	◐	○	●	●
	Bicycle Comfort/Safety	◐	○	●	●
	Accessibility (ADA Facilities, Crossings, etc.)	●	○	●	●
	Effective Transit	○	◐	○	○
Land Use	Local Business Access/Integration	●	◐	●	●
	Corridor Aesthetics	●	◐	●	●
Community Involvement/Benefit	Community Support/Acceptance	◐	●	◐	◐
	Regional Mobility/Continuity/Resiliency	●	○	●	●
	Constructability/Extendibility	●	◐	○	◐
	Funding Availability/Grant Applicability	◐	◐	●	●
Natural Environment	Minimal Environmental Impact	●	◐	○	●
	Stormwater Management	●	◐	◐	◐
Total (Raw Score)		19	13	18	21
Total (Weighted Score)		25.5	22	24.5	29

CONSTRUCTION PHASING

- Corridor improvements divided into 5 sections for phased implementation



COST ESTIMATE

- Planning-level cost estimates prepared for each construction phase

Construction Phase	Project Segment	Length		Station		Key Features			Plan Sheets	Est. Project Cost
		Miles	Feet	Begin	End	South	Middle	North		
1	1	.63	3,300	197+00	164+00	Horiz. Curve to RAB	32nd Roundabout	29th Intersection	7-10	\$18.1m
2	1 & 2	.27	1,400	164+00	150+00	Tangent to Roundabout	36th Roundabout	Horiz. Curve	6-7	\$11.1m
3	2	.45	2,400	150+00	126+00	Alignment to Intersection	102nd Ave Intersection	102nd Ave Intersection	4-6	\$19.3m
4	2	.27	1,400	126+00	112+00	Tangent to Roundabout	Dechaux Roundabout	Horiz. Curve to Tangent	3-4	\$12.2m
5	2	.49	2,600	112+00	86+00	Spencer Roundabout	UPRR Bridges (2 new)	Horiz. Curve to Tangent	1-3	\$63.9m
Total		2.11	11,100							\$124.7m

(Cost estimates provided in current year dollars)

FINAL REPORT AVAILABLE ONLINE!

■ Visit www.cityofedgewood.org/414

- Report is 82 pages
- 356 pages of Appendices





NEXT STEPS

- Public Hearing scheduled for next week's Regular Council Meeting
- Final discussion and review at next study session on September 3
- Potential Action at the September 10 Regular Council Meeting

QUESTIONS



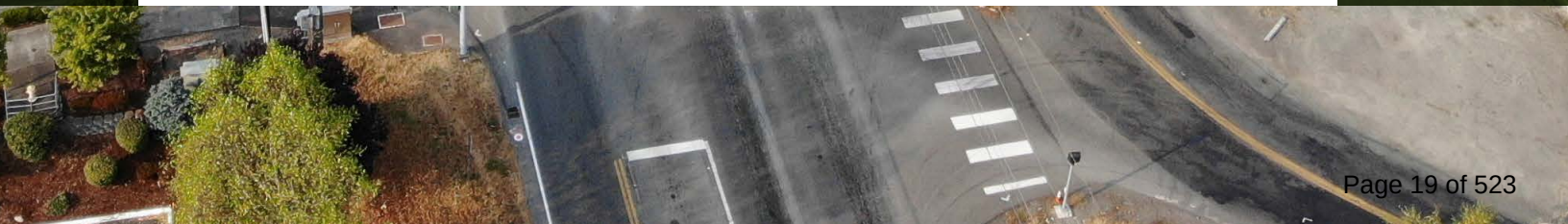
CONTACT

Jeremy Metzler, PE
Community Development Director
City of Edgewood
jeremy@cityofedgewood.org



MERIDIAN AVENUE (SR 161) CORRIDOR STUDY

Prepared by Transpo Group
July 2024



Prepared with:

*City of Edgewood
Transportation Solutions, Inc
March 2024*

Prepared by:

*Transpo Group
12131 113th Avenue NE, Suite 203
Kirkland, WA 98034-7120
425-821-3665
www.transpogroup.com
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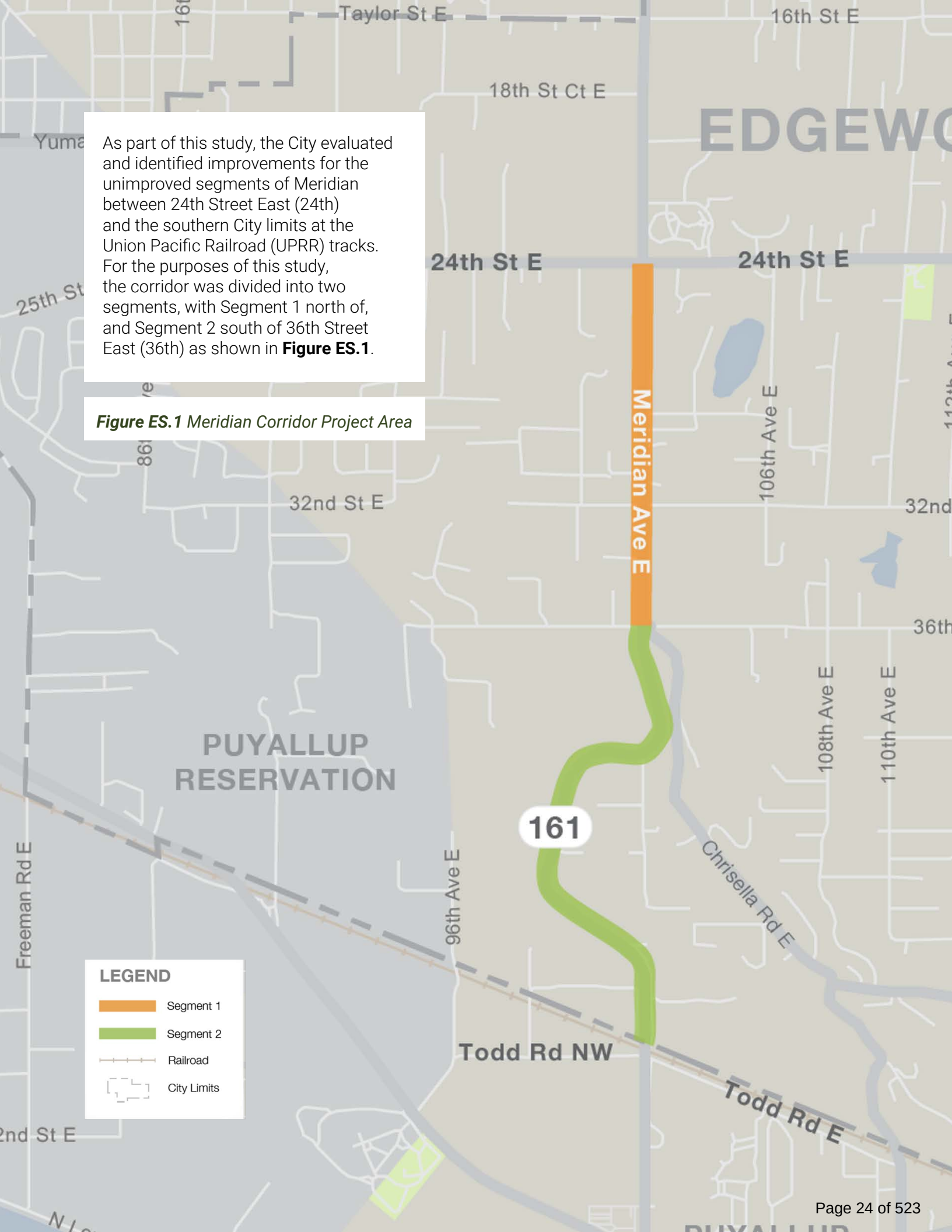
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Executive Summary

In support of the goals and policies adopted in their Comprehensive Plan, the City of Edgewood (the “City”) conducted an evaluation of the Meridian Avenue East (Meridian) corridor to identify necessary improvements to address congestion issues and gaps in the existing multimodal network. This roadway, which operates as State Route (SR) 161 through the City, serves as a key thoroughfare within one of the fastest growing regions in the Puget Sound area. Freight and commute trips make up a large portion of the daily traffic handled by this roadway, segments of which were last improved decades ago when regional travel demands could be accommodated by the existing roadway infrastructure. While some segments of Meridian have been recently improved to provide expanded vehicular capacity and multimodal pedestrian and bicycle facilities, some segments of the corridor remain unimproved, creating bottleneck locations which limit the functionality of the entire roadway.

As part of this study, the City evaluated and identified improvements for the unimproved segments of Meridian between 24th Street East (24th) and the southern City limits at the Union Pacific Railroad (UPRR) tracks. For the purposes of this study, the corridor was divided into two segments, with Segment 1 north of, and Segment 2 south of 36th Street East (36th) as shown in **Figure ES.1**.

Figure ES.1 Meridian Corridor Project Area



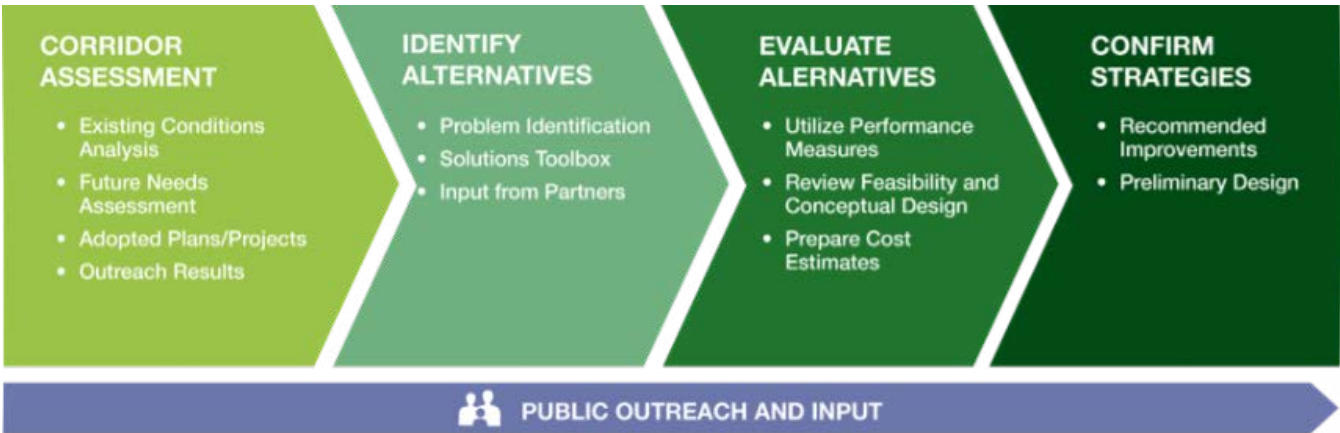


Figure ES.2 Meridian Study Approach

Project Purpose and Goals

As the primary roadway providing access to and through the City, the central purpose of the study was to identify improvements for Meridian which would enhance and expand mobility and connectivity for all travel modes, while also supporting and advancing the City's land use plans for the roadway. To help guide the development of this vision, a set of goals and priorities for the roadway were identified with the help of key project partners. The development of the goals incorporated input from a variety of stakeholders including neighboring public agencies, transit and freight operators, and members of the Edgewood community. This process included close coordination with key stakeholders, such as the Washington State Department of Transportation (WSDOT) and Pierce Transit, who operate and maintain the roadway and transit infrastructure along Meridian.

Through collaboration with these groups the following goals were established for the project:

- **Safety.** Establish a safe and comfortable environment for pedestrians, bicyclists, and all roadway users.
- **Mobility.** Develop a long-term strategy for addressing multimodal mobility and access needs along the corridor.

- **Community Involvement.** Collaborate with WSDOT, stakeholders, and the public to confirm future needs.
- **Land Use.** Support the City's Town Center Subarea Plan and other growth along the corridor.
- **Natural Environment.** Minimize impact to the environment.

Chapter 1 provides greater detail regarding the development and objectives of each project goal.

Study Approach

Once the project goals were identified, the project proceeded through a standard evaluation process in line with the methods and procedures utilized for most corridor planning studies conducted by WSDOT. The evaluation of the corridor followed a four-step process summarized in **Figure ES.2** to arrive at the proposed improvements for Meridian.

Chapter 1 expands on the study process and approach in greater detail.

Table ES.1 Meridian Public Outreach Events

Outreach Activity	Description	Timeframe
Stakeholder Interviews	Business owners along the corridor were contacted to provide their input regarding operations and access along Meridian.	October/November 2022
Project Factsheet & Website	Members of the Edgewood community were informed of project progress, goals, and events via a web page on the City's website and a factsheet distributed to local residents.	Distributed/Posted October 2022
Corridor Working Group	Representatives from neighboring jurisdictions, public agencies, and transit/rail operators, were brought together as part of a working group which met regularly to discuss project progress and findings/recommendations.	October 2022, January 2023, April 2023, October 2023
Public Open House	Information and updates on the project were presented to community members at two open houses held at City Hall. Community members provided feedback on the project goals, improvements, and recommended alternatives.	November 2022, July 2023
City Council Meetings	Presentations were given to the Edgewood City Council to inform elected officials of the efforts toward arriving at a recommended corridor concept in an effort to garner the support of local decision makers.	May 2023, October 2023
Online Survey	An online survey was prepared and distributed to Edgewood residents to gather input from the community to inform the vision for the roadway.	March 2023

Public Outreach and Input

A variety of public engagement methods were conducted to gather input from community members and project stakeholders. In addition, several means of communication were used to keep the members of the public informed of project progress and outcomes. These outreach activities were conducted throughout the project's duration to ensure that the identified project improvements aligned with feedback gathered from the project partners and members of the Edgewood community. Key outreach activities conducted as part of the process are summarized in **Table ES.1**.

Chapter 2 details the outreach activities held as part of the project, as well as the results of the online survey conducted within the City.

Table ES.2 Meridian Existing and Future Needs Summary

Category	Findings/Needs
Demographic Data	• High proportion (> 35%) of low-income households (annual earnings less than \$50K) along the northwest and southeast portions of the corridor • High percentage (> 20%) of households with disabilities along the entire corridor • Relatively low levels of non-English speaking and zero car households
Land Use/Zoning	• Mixed-use, commercial, and residential developments between 24th and 36th (resulting in high driveway densities) • Low-density residential development between 36th and southern City limits (corresponding with few driveway connections along the segment)
Traffic Volumes/Speeds	• ADT volumes between 15,100 and 17,200 vehicles • Single-unit trucks (or larger) comprise more than 10% of daily vehicle traffic • 85th Percentile Speeds: approximately 38-43 mph • Higher travel speeds in the northbound direction
Intersection Operations	• Signalized intersections operate at LOS C or better during both peak hours • Stop-controlled approaches at two-way stop-controlled intersection can experience significant delay (> 70 seconds) during the peak hours
Safety	• Signalized intersections (24th and 36th) generally exhibit higher collision rates • Some two-way stop-controlled intersections (29th Street E, 32nd Street E, and 102nd Ave E) also exhibit high collision rates • Rear-end collisions are the most common collision type along the corridor
Transit	• One transit line (Pierce Transit Route 402) operates along the corridor with 30-minute headways • Relatively low ridership levels at stops along the corridor (less than 10 daily passengers boarding/alighting at each bus stop) • Current transit ridership levels (2022) have not recovered to pre-pandemic (2019) levels
Active Transportation	• Low pedestrian and bicycle activity along the corridor due to the lack of active transportation facilities • More pedestrian facilities along the northern portion of the corridor (near 24th and the Town Center)

Existing and Forecast Conditions Needs Assessment

To identify the needs of the Meridian corridor, the project evaluated existing and future conditions along the roadway to identify deficiencies in the existing transportation network. The evaluation of existing conditions included a review of demographic data, land use/driveway densities, intersection operations, vehicular speed distribution, collision history, and transit ridership data. In addition, future traffic demands and active transportation connectivity associated with planned projects within the City and surrounding region (including WSDOT’s SR 167 Extension

project) were evaluated under future conditions. **Table ES.2** summarizes the findings of the existing and future evaluation along the Meridian corridor. The evaluation of existing and future conditions along the roadway to determine project needs are presented in Chapters 3 and 4, respectively

Alternative Development and Assessment

Based on input gathered from project stakeholders and community members, three design concept alternatives were developed for the Meridian corridor which would address the existing and future needs identified for

Table ES.3 Meridian Final Recommendation Summary

	Segment 1	Segment 2
Lane Configuration	Widen to provide a 4-lane facility with center medians between 24th and 36th	Extend the 3-lane facility south to Spencer (2 NB lanes and 1 SB lane)
Pedestrian/ Bicycle Facilities	Install an off-street multi-use path along both sides of the roadway	Install an off-street multi-use path along the east side of the roadway
Midblock Crossings	Install signalized mid-block crossings at 29th and north of 36th	N/A
Intersection Control	Install roundabouts at 32nd and 36th	Realign the Dechaux intersection (intersection control type to be determined when roadway alignment is finalized)
Access Management	Install non-linear (meandering median) between intersection	Install a southbound acceleration/ deceleration left-turn lane at 102nd
Transit Facilities	Install in-line transit stops	Coordinate with Pierce Transit to discuss feasibility of NB bus stop installation at 102nd
UPRR Bridge	N/A	• Maintain existing 2-lane bridge for NB traffic • Construct new 2-lane bridge for SB traffic (allows for potential future widening of roadway by restriping new bridge from 1 to 2 lanes, and replacement of existing bridge) • Construct new pedestrian/bicycle bridge

the roadway. These three alternatives were developed using a two-stage screening process.

During the first step of the screening process, a toolbox of potential roadway improvement measures was developed from which potential improvements could be selected to address the corridor needs. As part of the Level 1 screening process, these measures were then reviewed and evaluated based on whether their implementation would align with the goals of the project and be appropriate for the context of the roadway.

Improvements advanced out of the Level 1 screening process were incorporated into the three corridor design alternatives for each of the two project segments along Meridian. The Level 2 screening process assessed how well each of the alternatives aligned with the goals and priorities of the project. The three design alternatives were compared and assessed against one another based on evaluation criteria developed based on the project goals. Feedback was gathered on the proposed project alternatives to determine which set of improvements received the most support from stakeholders and the community. Based on the results of the Level 2 screening analysis, the preferred alternative was determined and was used as the basis for identifying the proposed improvements for the corridor.

The alternative development procedures, scoring process, and evaluation results are described in more detail in Chapter 5.

Final Study Recommendations

The recommended improvements from the preferred alternative were further refined to ensure that the proposed recommendations for the corridor addressed the project's goals and priorities. **Table ES.3** summarizes the proposed improvements for both project (north and south) segments of the Meridian corridor.

To provide the City with the information required to pursue grant funding for the Meridian improvements, planning-level cost estimates and a potential phasing timeline were prepared for the final study recommendations. Potential grant funding opportunities which can be explored to support implementation of the proposed improvements were also identified.

The final corridor recommendations and funding information are discussed in detail in Chapter 6.

1 Introduction and Background

Meridian Avenue East (Meridian), which also serves as State Route (SR) 161, is the main north-south corridor through the City of Edgewood (the “City”), connecting communities in both King and Pierce Counties. For multiple decades, the Washington State Department of Transportation (WSDOT) worked to develop and revise a plan for improving the Meridian corridor within City. In January 1997, WSDOT conducted an analysis and review of the corridor to identify necessary improvements. Subsequently in 2004, the City, in coordination with WSDOT, prepared an analysis and revised design concept for the segment of the corridor through the City based on input and feedback gathered from community stakeholders. Nearly a decade later in 2012, WSDOT implemented improvements to Meridian, north of 24th Street East (24th), to widen the roadway from a three-lane to a five-lane facility. This study of the Meridian corridor built upon the previous analysis and design work conducted for the roadway to develop a design concept for the corridor which aligns with the City’s goals and objectives and connects seamlessly with other improvements which have already been implemented.

Roadway Context

Within the City, Meridian Avenue is a WSDOT owned and maintained corridor, operating as SR 161. While WSDOT maintains the pavement, marking, signals and signs along the corridor, the City is responsible for upkeep of the drainage facilities, sidewalks, and vegetation along the roadway. Thus, improvements along the corridor have been carefully coordinated with WSDOT.

In the City of Edgewood, Meridian is classified as a Principal Arterial along its entire length. The roadway forms the backbone of the City's transportation network and serves as the primary roadway providing north-south access to land uses throughout the City. The roadway travels through the City's Town Center which is focused along the corridor between 18th Street Court East (18th) and 29th Street East (29th). Since the previous analysis of the corridor, the roadway context and network have evolved, with new land uses and development patterns occurring within the immediate vicinity of the roadway. Substantial growth has occurred along the corridor with new multifamily and commercial developments arising along the corridor.

Planning Context

The Transportation Element of the City's Comprehensive Plan identifies a goal to "[m]aintain a dynamic relationship between transportation and land use along the Meridian Avenue E corridor." (Edgewood Comprehensive Plan Goal T.X) One of the policies adopted to achieve this goal is to "[d]evelop a comprehensive Meridian Avenue E

corridor study and plan for the segment south of 24th Street E." (Edgewood Comprehensive Plan T.X.a) Thus, the preparation of this study aligns with and advances the transportation goals and policies of the City's Comprehensive Plan. In addition, other recent planning initiatives developed by the City have identified further changes that are envisioned for the Meridian corridor area:

Town Center Subarea Plan. This document outlines the plan and vision for residential and commercial development within the Town Center region to transform the roadway into a "Main Street" community. The goal of the plan is to establish the Town Center as the heart of the City, with land uses and roadway infrastructure which promote a walkable community centered around the civic buildings. The plan outlines recommendations for the area related to urban design, land use/zoning, environment, housing, public services, and transportation.

Parallel Road Vision. Another key objective for the City is to expand and connect the network of roadways running adjacent and parallel to Meridian. The goal of this initiative is to spur development along the corridor by providing improved accessibility to land uses along the roadway. As a result of these improvements, the City strives to expand multimodal connectivity along the corridor by increasing the number of routes for bicycle and pedestrian travel and encouraging the expansion of transit facilities along Meridian.

Study Area

This study focuses on the portion of Meridian between 24th and the southern City limits. This segment of the roadway connects with the section of the roadway which has experienced recent improvements. For the study, the roadway has been divided into two segments due to the unique and differing characteristics along Meridian north and south of 36th Street East (36th):

- **Segment 1:** 24th Street to 36th Street
- **Segment 2:** 36th Street to southern City Limits (Union Pacific Rail line)

Segment 1

Segment 1 represents the portion of the roadway with more land use activity and more likely to experience near-term redevelopment. Various commercial and residential developments are along this roadway, with driveway access points located at short intervals along the corridor. Segment 1 is more characteristic of a traditional “City street” which provides direct pedestrian connectivity to adjacent land uses and bus stops at several intersections along the corridor. This segment includes the recently completed Edgewood Community Park at the intersection of Meridian/36th. Segment 1 generally provides one travel lane in each direction with a center two-way left-turn lane.

Segment 2

Segment 2 includes the section of Meridian which exhibits an extended downhill grade in the southbound direction as the roadway enters the City of Puyallup. This segment has few intersections/driveways and limited streetlight and storm water facilities. Steep slopes are present along both sides of the roadway, with the southern portion of Segment 2 built on fill as the roadway crosses Dechaux Road East (Dechaux) and the Union Pacific Railroad line. For most of Segment 2, Meridian provides two travel lanes in the northbound direction and one in the southbound direction. South of the Meridian/Dechaux intersection, the roadway provides only one travel lane in each direction, leading to congestion and trip diversions to other nearby roadways.

Figure 1.1 Meridian Avenue Project Corridor



“

WSDOT is “creating a system that enables safe, convenient access for all types of transportation options - walking, biking, driving and riding transit.”

“A transportation system that accommodates all forms of transportation is more efficient in the travel space provided, more accessible, safer, more economical and sustainable.”

-WSDOT Complete Streets

”

Complete Streets Legislation

In 2022, the Washington State Legislature passed Senate Bill 5974 (SB 5974) which added a Complete Streets requirement to the Revised Code of Washington (RCW) 47.04.035. As part of this requirement, all state transportation projects beginning design on or after July 1, 2022, with a budget of \$500,000 or more are required to do the following:

- **Identify** locations on state right-of-way which lack adequate pedestrian and bicycle facilities;
- **Review and Construct** active transportation and public transit connections between the local roadway network and state-operated facilities; and
- **Implement** improvements appropriate for the area based on roadway characteristics, land use context, and collision history which can achieve the desired travel speed.

A “Complete Streets” approach to transportation planning and design is one that considers all modes of travel to ensure that motorists, pedestrians, bicyclists, and transit riders all have convenient and safe access to their desired destinations. Projects developed using this framework often include speed management techniques which help to minimize crash exposure and reduce the severity of collisions. These measures are frequently accompanied by adjustments to lower the speed limit to support a safe system approach with the goal of eliminating serious injury and fatal collisions. When using a complete streets approach to develop a concept for a corridor, it is important that context-sensitive solutions be developed which consider the unique features and characteristics of the project area. In line with WSDOT priorities, a complete streets approach was employed when developing the design concepts for Meridian to ensure that the final design includes facilities catering to all travel modes and emphasizing safety for users traveling via non-motorized modes.



Figure 1.2 Complete Street Design Concept Illustration



Safety

Establish a safe and comfortable environment for pedestrians, bicyclists, and all roadway users



Mobility

Develop a long-term strategy for addressing multimodal mobility and access along the corridor.



Land Use

Support the City's Town Center Subarea Plan and other growth along the corridor



Community Involvement

Collaborate with WSDOT, stakeholders, and the public to confirm future needs



Natural Environment

Minimize impact to the environment

Figure 1.3 Project Goals

Purpose and Need

As the backbone to the City's transportation network, Meridian is central to expanding economic and mobility opportunities in Edgewood and the surrounding communities. Therefore, the intent of this study is to identify potential improvements for Meridian which will support and advance the land use and transportation vision for the City, while expanding mobility opportunities for pedestrians, bicycles, and other alternative travel modes.

At the outset of the project, goals were developed by the project team, in coordination with key stakeholders, which helped to guide work efforts throughout the duration of the project. The goals maintained focus on what the project is meant to achieve and provided guidance when evaluating competing ideas and solutions. The project goals also served as a way to quickly communicate to the public the priorities which guided the development of the proposed concept. The primary project goals are presented in **Figure 1.3** and described in the following paragraphs.

Project Goals

Safety

Per RCW 47.04.280, the State Legislature instructs that the safety and preservation of the transportation system be prioritized over other transportation goals (including mobility). Thus, in line with WSDOT policies, safety was identified as a key project goal with the intention of providing safe and comfortable facilities along Meridian for all roadway users. The project seeks to identify and implement measures which will reduce collisions along the corridor and provide protected facilities for pedestrians and bicyclists.

Mobility

One goal for the project is to develop a concept for the roadway which improves vehicular operations and multimodal access to residences and businesses along the corridor. The project seeks to expand and enhance active transportation use by improving the comfort and connectivity of non-motorized facilities on the roadway. Multimodal priorities are emphasized by increasing access to public transportation and improving the reliability of existing transit lines. As part of this goal, the project also looks to increase the system's resiliency and ability to accommodate and recover from temporary breakdowns in the traffic flow.

Land Use

Another goal for the project is to advance the community's vision for the Town Center, including the key priority to establish a connected neighborhood with a robust pedestrian network. Increased connectivity will support the concentration of higher-density commercial and residential uses adjacent to Meridian to establish the corridor as a key mixed-use district.

Community Involvement

Coordination with WSDOT, stakeholders, and the Edgewood public is key to developing a concept for the corridor which fully meets future needs. By gathering feedback and modifying the project concept based on community and stakeholder input, the City ensures that the project outcomes align with the community expectations and acquires the necessary concurrence from WSDOT on the proposed corridor vision. In addition, confirming that the project improvements align with priorities of grant funding programs increases the likelihood that construction funds can be secured to fully implement the vision for the corridor.

Natural Environment

The project corridor is a unique urban facility due to the fact that it follows the natural topography of the area as it heads downhill into the Puyallup River Valley, in proximity to Wapato Creek. For these reasons, the roadway presents distinctive challenges that require consideration when developing the proposed concept for the corridor to ensure that the improvements do not have a detrimental effect on the surrounding environment. It is the City's intent to retain the natural character of the roadway and minimize impacts to adjacent areas/slopes, to the extent possible.

Table 1.2 List of Planned and Ongoing Projects along Meridian

Agency	Project Name	Project Region/s	Current Stage	Completion Year
Private	SR 161/20th Street Roundabout	Edgewood	Pre-Construction	2026
Edgewood	Chrisella Road Realignment	Edgewood	Preliminary Design	TBD (not funded)
WSDOT	SR 167 Extension Project	Fife, Puyallup	Construction	2029

Planned/Ongoing Projects

As summarized in **Table 1.2**, there are several planned and ongoing projects on the roadway network in and around the City which will affect operations along Meridian. The proposed improvements identified within this study were developed in consideration of these future changes to ensure that the planned vision for the corridor can accommodate the traffic demands forecast for the roadway.

SR 161/20th Street Roundabout

A two-lane roundabout is being designed along Meridian at 20th Street East (20th) as part of the mixed-use Dhaliwal TC Landing development proposed at the southwest corner of this intersection. This improvement, shown in **Figure 1.4**, will slow traffic along Meridian through the City's Town Center and provide additional pedestrian connectivity between the development's commercial and residential uses and other properties along the corridor. The proposed roundabout is expected to greatly improve the operations of this intersection, providing benefits not only for the residents, employees and visitors of the Dhaliwal development, but also for the residential developments on the east side of Meridian, which use 20th to access the regional roadway network.

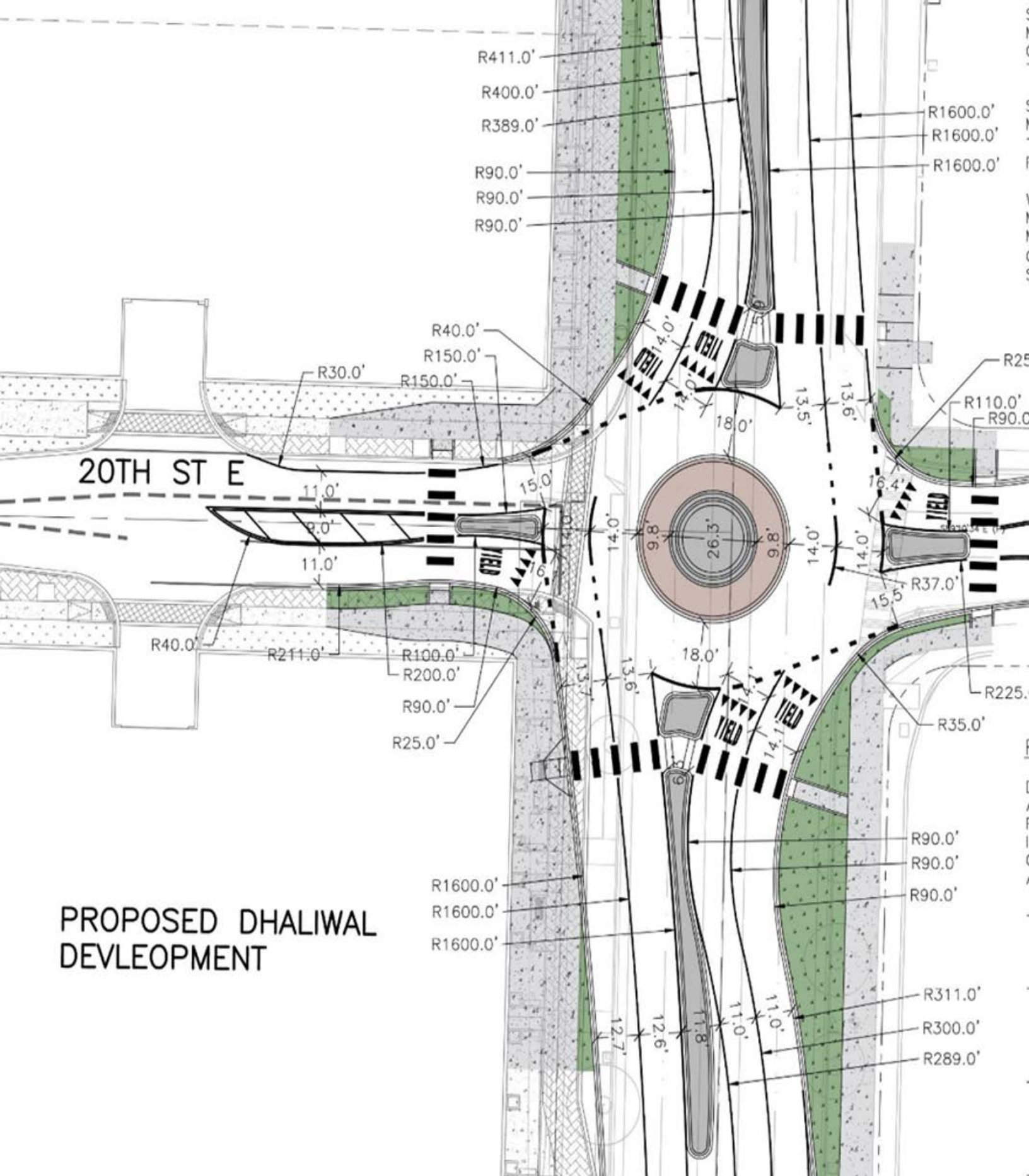


Figure 1.4 *Planned Layout of SR 161/20th Street Roundabout*

Chrisella Road Realignment

At the intersection of Meridian/36th, Chrisella Road East (Chrisella) connects to the intersection as the southeast leg. The proximity of this roadway to the signal along Meridian results in additional conflict points through the intersection and unnecessary confusion for the motorists traversing these corridors. Thus, the City has developed a proposed concept to realign Chrisella such that it intersects the south side of 36th approximately 500 feet east of Meridian. The existing Chrisella alignment will be converted into a cul-de-sac in advance of the intersection. Complete streets improvements are also proposed along 36th as part of this project to expand and enhance pedestrian and bicycle connections to Meridian. A future phase of the project proposes to convert the existing signalized intersection at Meridian/36th to a two-lane roundabout. These improvements are shown in **Figure 1.5**. The City is in the process of identifying and securing funding for these improvements.

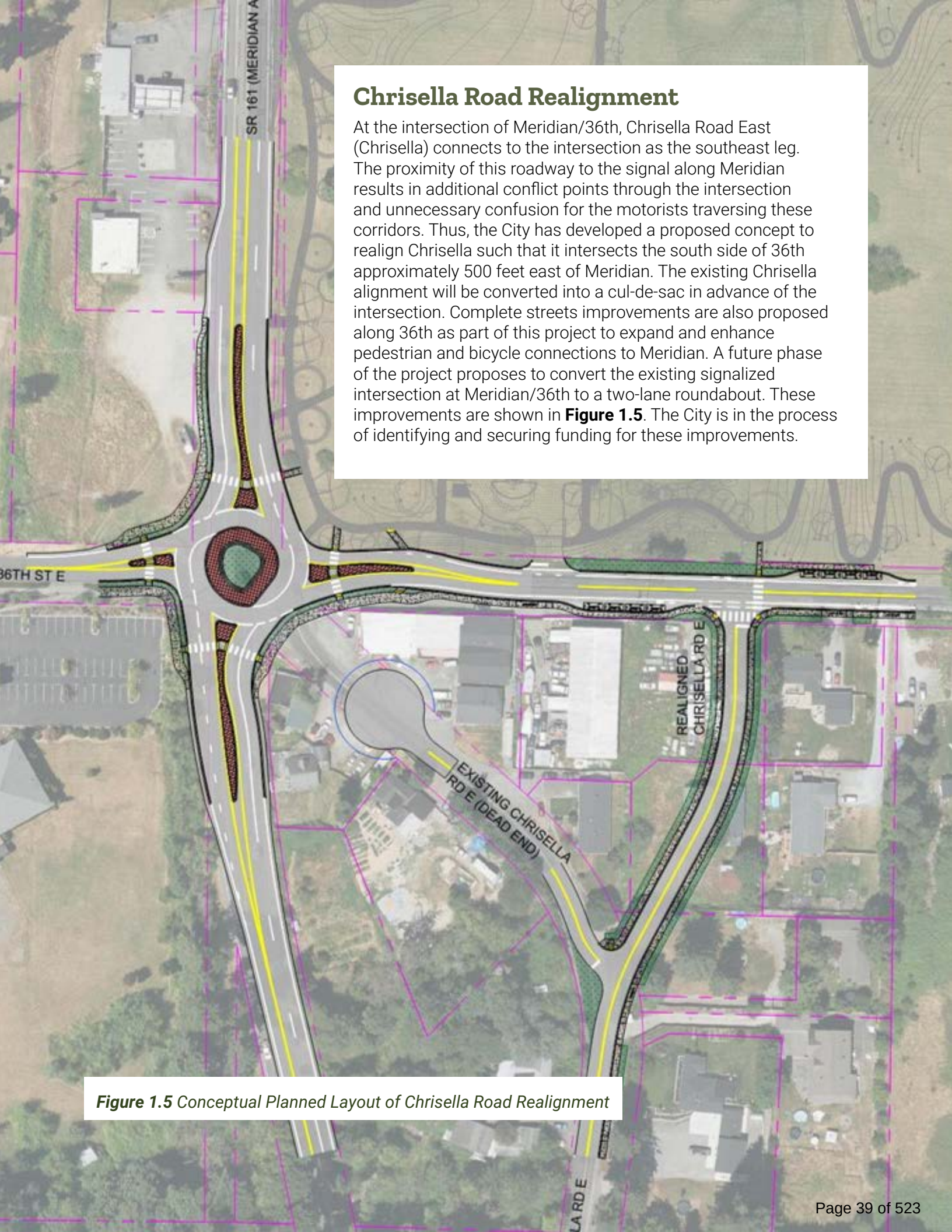


Figure 1.5 Conceptual Planned Layout of Chrisella Road Realignment



Figure 1.6 Overview of SR 167 Extension Project

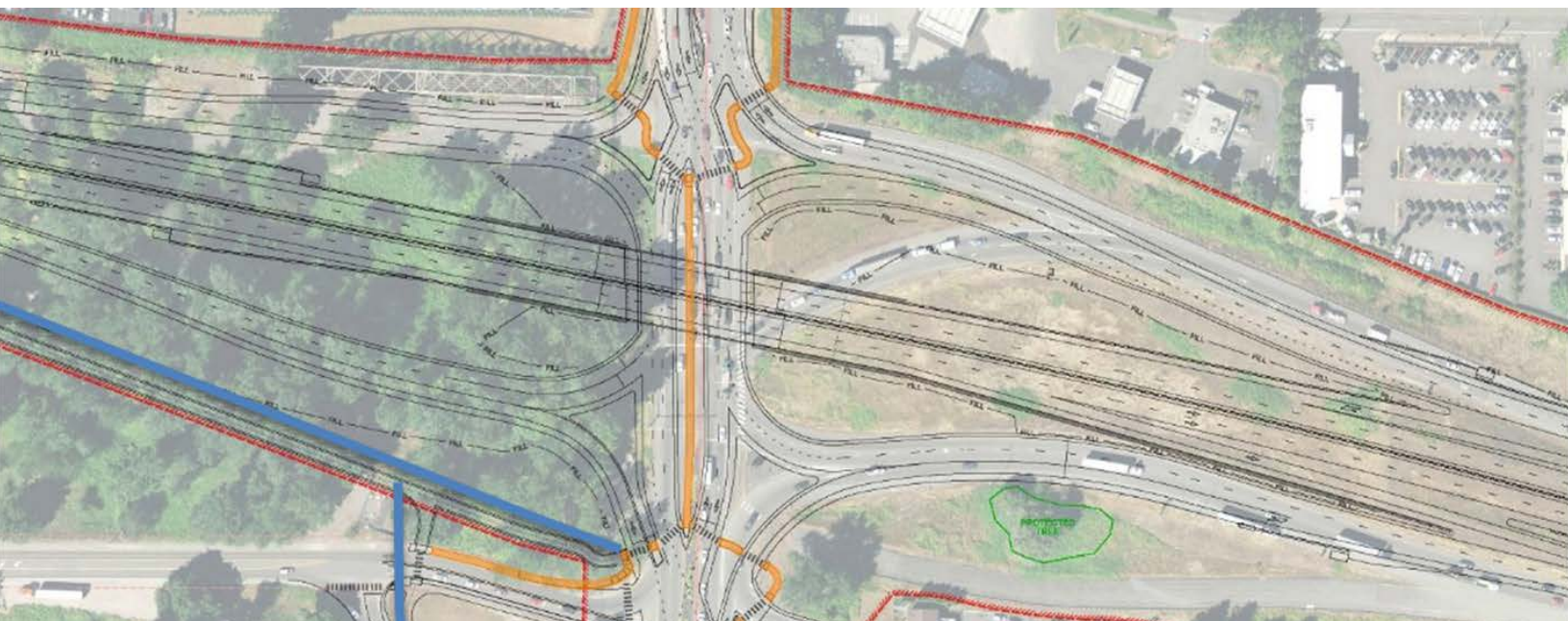


Figure 1.7 Layout of SR 167 and SR 161 Interchange: Part of SR 167 Extension Project

State Route 167 Extension Project

South of the City, WSDOT is constructing six miles of new tolled highway connecting the Port of Tacoma to the City of Puyallup and beyond. Stage 1 of this project will link State Route 509 (SR 509) to Interstate 5 (I-5), while Stage 2 will extend this connection from I-5 to the current terminus of SR 167 at Meridian (SR 161). The goal of the project is to alleviate congestion along I-5 by providing an additional east-west highway facility to accommodate the regional traffic demand and directly link the Port to industrial and manufacturing uses throughout

Pierce County. The \$2.69 billion project is expected to be completed in 2029. As part of the SR 167 Extension Project, a diverging diamond interchange will be constructed along Meridian to provide access to the expanded highway facility. In addition, the project will realign Valley Avenue Northwest (Valley), west of the City limits, and construct a roundabout interchange with the new segment of SR 167. These proposed changes to the roadway network south of the Meridian study corridor were considered when developing the future traffic forecasts, as described in Chapter 4.

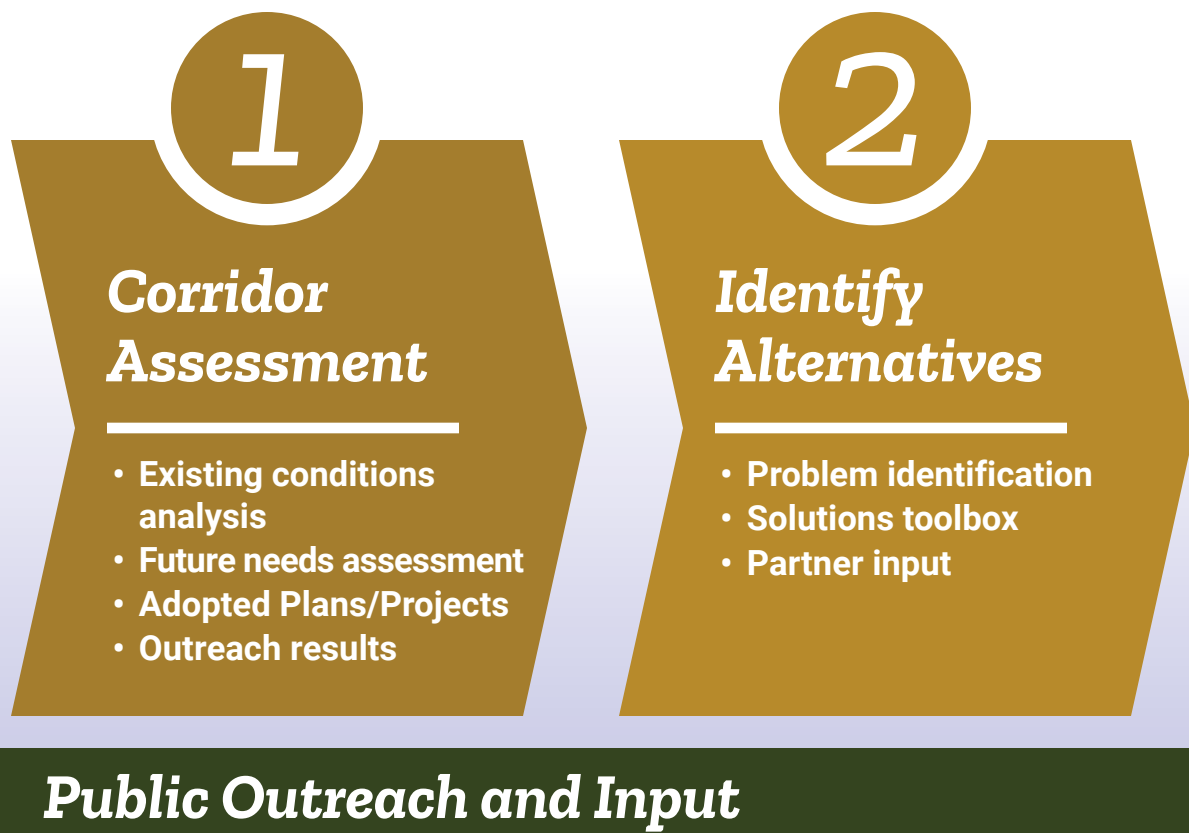


Figure 1.8 Overview of Study Approach

Study Approach

The approach and process for the development of the Meridian corridor study follows the general approach applied to all corridor planning projects undertaken by WSDOT. This process follows the general four-step process outlined in **Figure 1.8**. Public outreach and engagement were conducted during all stages of the process to continually gather feedback and input from the community and stakeholders.

- **Corridor Assessment.** During the initial phase of the project, the project team identified current issues and needs for the corridor to gather an understanding of the goals and objectives for the project. This included an analysis of existing conditions along the corridor, review of current plans and policies adopted by the City, and collection of comments and concerns from community stakeholders. This phase of the project also included forecasting future conditions along the corridor to determine how the needs of the corridor would shift over time.
- **Identify Alternatives.** The next step in the process was to determine the primary problems for the corridor and develop a toolbox of potential improvements which could be considered to address these problems. This toolbox of solutions was then presented to the project stakeholders to gather feedback on the appropriateness of various solutions based on the context of the corridor.



3

Evaluate Alternatives

- Utilize performance measures
- Review feasibility and conceptual design
- Prepare cost estimates

4

Confirm Strategies

- Recommended improvements
- Preliminary design

- **Evaluate Alternatives.** Using the toolbox of potential solutions for the corridor, design concept alternatives were developed which incorporated a variety of solutions determined as being appropriate for the roadway. These alternatives were compared and ranked utilizing performance measures developed based on the project goals. Weighting factors were applied to each performance measure to give greater influence to those measures that were of primary importance to the community and project stakeholders. The selection and application of the weighting factors are discussed in further detail in Section 5. During this stage, the feasibility of each design concept was evaluated, with order-of-magnitude cost estimates prepared for each alternative.
- **Confirm Strategies.** The final stage of the project was to develop a final recommendation for improvements along the corridor based on the evaluation of the design concept alternatives. Preliminary design of this final concept was advanced to develop a planning-level cost estimate and scope which can be used to inform funding pursuits.
- **Public Outreach.** During all phases of the project, feedback from community members was used to advance and inform the development of the final concept recommendations. Feedback was gathered from project stakeholders, as well as the wider Edgewood community, through regular meetings, public surveys, and open houses. The public outreach approach is outlined in more detail in Chapter 2.

2 Public Outreach and Input

To ensure that the final concept for the Meridian corridor is reflective of the goals and priorities of the community and other public agencies within the region, soliciting and gathering input from the public was an essential part of the project development process. The public outreach process of the project engaged a wide array of viewpoints, including transportation professionals, local business owners, and Edgewood residents. The variety of viewpoints represented by these project partners ensures that all perspectives were considered in order to develop a vision of the corridor which addressed the needs of all community members.



Figure 2.1 Communication Goals and Outreach Events

Public Outreach Plan/Approach

A Public Outreach Plan was developed for the project to identify and guide the public outreach events incorporated as part of the project. In this document, the project team established the primary communication goals for the project and identified the key project outreach elements, which are summarized in **Figure 2.1**. The Public Outreach Plan for the project is provided in **Appendix A**.

Community input was gathered throughout the duration of the project. A schedule of the key outreach events is shown below.

- Business Stakeholder Interviews: October/November 2022
- Public Open House #1: November 17, 2022
- Public Online Survey: March 2023
- City Council Presentation: June 13, 2023
- Public Open House/Workshop #2: July 19, 2023

Public Outreach Results and Findings

Multiple outreach approaches were conducted to gather input and guidance regarding the priorities and vision for the Meridian corridor. Outreach events were held both in-person and virtually to provide local residents with the greatest opportunity to provide feedback and ask questions about the proposed improvements. Responses were gathered throughout the development of the corridor study to continually evolve and adapt the plan for the roadway so that it reflected the priorities of the community. Feedback gathered from project stakeholders during the public outreach process is summarized in **Appendix B**.

Stakeholders Interviews

As changes to Meridian would have a substantial impact on operations and access to and from businesses along the corridor, the project team first conducted stakeholder interviews with local business owners. These interviews were conducted both in-person and virtually to provide an opportunity for all Meridian business owners to provide feedback through a convenient forum. Example questions used to guide the conversation with the property owners included:

- How does your organization use the corridor today (storefront, parking, employee commute, transit, etc.)?
- What issues do you currently experience that impact your organization?
- Are there examples of street design elements in other communities that you would like to see replicated along Meridian? (business-friendly, attractive, walkable, safe)

The results of the stakeholder interviews were then summarized and synthesized

to develop overarching themes that could be used to identify the existing challenges posed by the current roadway configuration. These key findings included:

- A need for additional lighting along the corridor to improve pedestrian safety
- A lack of adequate parking along the corridor, resulting in reduced patronage of local businesses
- An absence of pedestrian and bicycle facilities on the roadway, which reduces accessibility to adjacent properties and limits foot traffic along the corridor
- High levels of congestion during the peak periods push traffic to side streets

The input gathered from business owners along the roadway was used as a starting point to identify the goals and objectives for the project.

Project Fact Sheet & Website

To keep the community informed of the project status and encourage participation in the outreach events, the City created and distributed a project fact sheet within the surrounding community. Information regarding the project goals, schedule, and overall workplan was included within the fact sheet. In addition, the questions discussed with local business owners as part of the stakeholder interviews were included to ensure that all organizations along the corridor were provided the opportunity to provide feedback, even if not selected to conduct a interview. The fact sheet provided contact information for the City staff working on the project which could be used to request and provide information and feedback about the project.

Meridian Ave (SR 161) Corridor Study



PROJECT OVERVIEW

This study is being conducted by the City of Edgewood in an effort to assess multimodal access, safety, and environmental needs along Meridian Avenue, from 24th Street E to the southern City limits at Todd Rd E. Key intersections will be analyzed, and strategies and concepts will be developed to improve this corridor for all. In support of this effort, the City will be seeking input from businesses and property owners along the corridor, and from the general public through outreach events and a public survey.

PROJECT GOALS

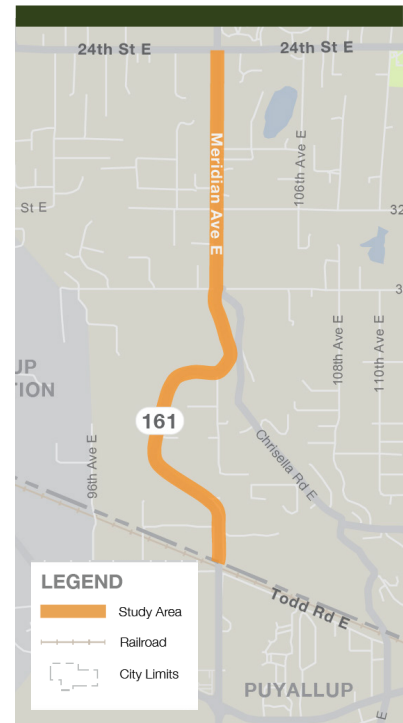
1. **Develop a long-term strategy** for addressing operations and safety needs along this stretch of Meridian Avenue
2. **Collaborate and coordinate approvals** with WSDOT for the future design
3. **Support the City's Town Center Plan effort** and other growth along the corridor

PUBLIC INPUT SCHEDULE

The following opportunities will be available to the public to provide input on this study:

- Business stakeholder interviews**..... Oct/Nov 2022
- Public Open House (hybrid)** November 17, 2022
- Public Online Survey**..... January 2023
- Public Workshop (in-person)**..... Feb/March 2023

To be kept informed about these opportunities as they are scheduled, please send an email to the contact provided below.



OVERALL WORK PLAN

Corridor Assessment

Aug – Nov 2022

Community Outreach

Sept 2022 – July 2023

Development and Evaluation of Alternatives

Oct 2022 – May 2023

Summary of Recommendations

Jan – July 2023



**KEEP IN
TOUCH!**

For further information, please contact:

Evan Hietpas, Senior Planner
evan@cityofedgewood.org

Figure 2.2 Project Fact Sheet

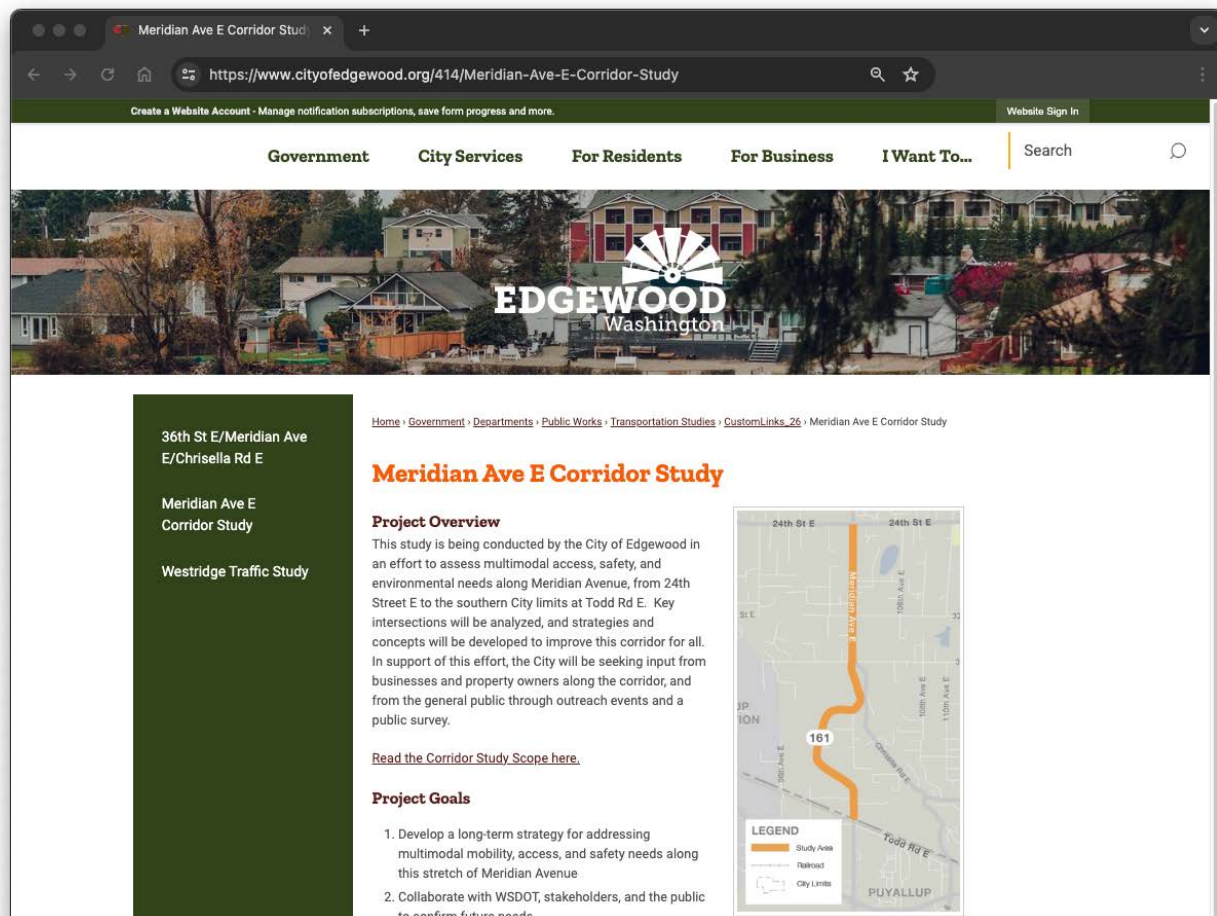


Figure 2.3 Project Website

In addition to the fact sheet, the project team created an online web page on the City's website to host information and updates regarding the project progress. Similar to the fact sheet, the website provides an overview of the project goals, workplan, and schedule, as well as contact information to provide feedback and request information. Recordings of project outreach events and presentations were also shared on the website. The project website served as a digital location housing the proposed design alternative plans which remained accessible to the general community. Once completed and adopted, the final corridor study report will be posted on the project website.

Corridor Working Group

A Working Group was convened for the project to guide the study and provide input on

findings and recommendations. The Working Group brought together representatives of a wide range of public jurisdictions and private organizations. Members of the Working Group included staff from the following organizations:

- City of Edgewood
- WSDOT
- Pierce Transit
- Puyallup Tribe
- City of Milton
- City of Puyallup
- Union Pacific Railroad

The Working Group met on a bimonthly basis to discuss project updates as well as to review alternatives and concepts for the corridor. Feedback gathered from members of the Working Group was used to update and refine the proposed project alternatives. Incorporating input from important working group representatives, such as WSDOT and Pierce Transit, ensured that the proposed concept for

the corridor received the support from key stakeholders involved in the operation and maintenance of facilities along the corridor.

Public Open House

Two public open houses were held to introduce the project to and gain feedback from the community. These meetings provided community members with an opportunity to discuss the project directly with City staff and members of the consultant team. The first open house was held in November 2022 and was held both in-person and virtually. At this open house, the project team presented the project goals and objectives to the community and outlined the approach to the project. Initial feedback on the priorities for the corridor and the potential solutions for the roadway were gathered at this meeting.

The second open house was an in-person workshop held at City Hall in July 2023. During this workshop, the project team presented the proposed design alternatives and gathered feedback from the community on the preferred solutions for the corridor. This workshop allowed the project team to present the potential concepts for the corridor which were developed using feedback gathered at the first open house. Further feedback was gathered during this event which was used to refine the alternatives and arrive at the final recommendations.

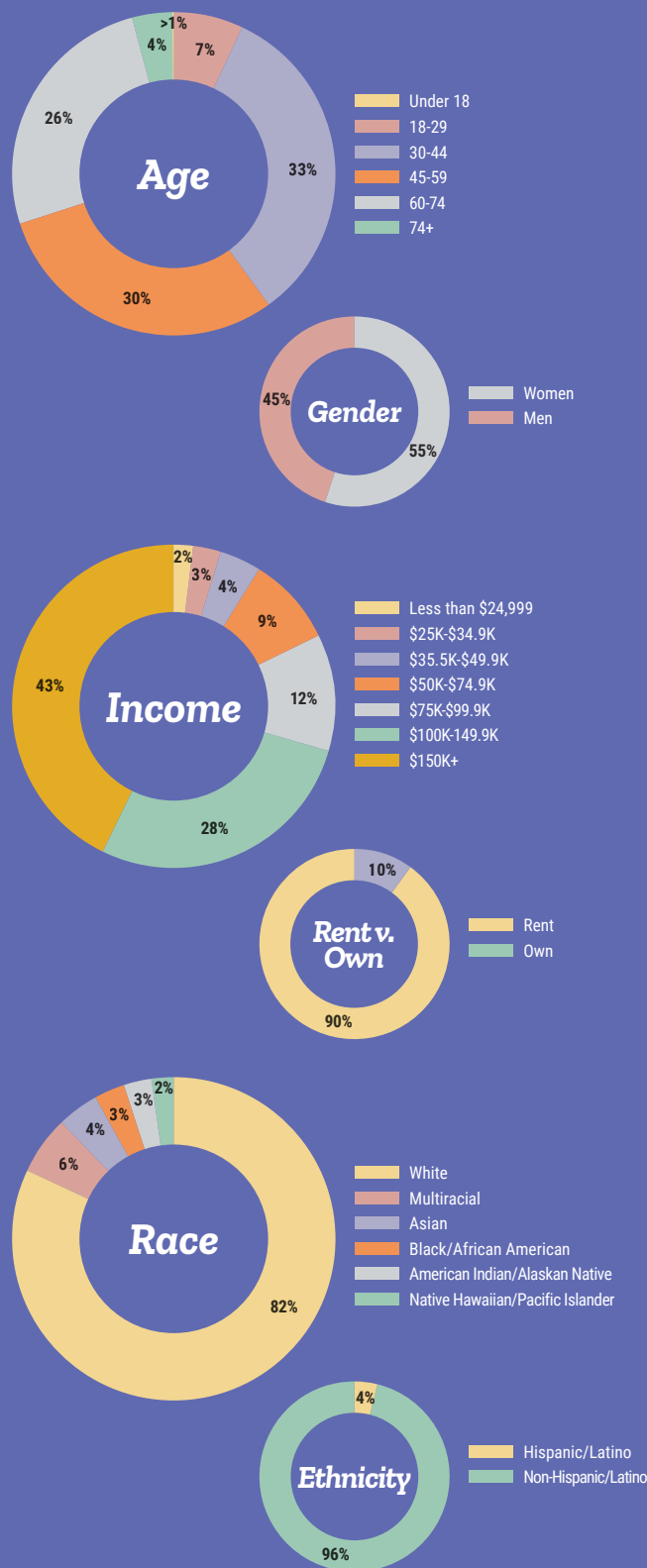
City Council Meetings

At multiple times during the development of the project, City staff and consultant team members updated local decision makers on the status of the project at City Council meetings. Two presentations were given to the council members. The initial presentation was conducted in May 2023, during which the project goals were discussed as well as the proposed approach for the project. Subsequently, a second presentation was made in October 2023 during which the design alternatives were reviewed with council members and the results of the online survey were presented. These presentations allowed the project team to gather feedback from local officials to ensure that the final recommendations for the project have the support of local policy makers.



Figure 2.4 Open House Flyer

Survey Resopondents



Online Survey

In addition to feedback gathered at the open house/workshop events, the project team published an online survey in March 2023 to solicit input from those living and working in the community. In total, 674 responses were received from parties interested in the project. Some of the key demographic indicators of survey respondents are summarized below:

- The demographic response breakdown of survey participants closely matched the demographic breakdown for the City.
- Survey respondents spanned a wide range of age groups, with most between the ages of 30 and 75.
- Survey responses were received from primarily high-income households (with 71% of households earning over \$100k per year) and households who own their home.

City of Edgewood 2020 Census

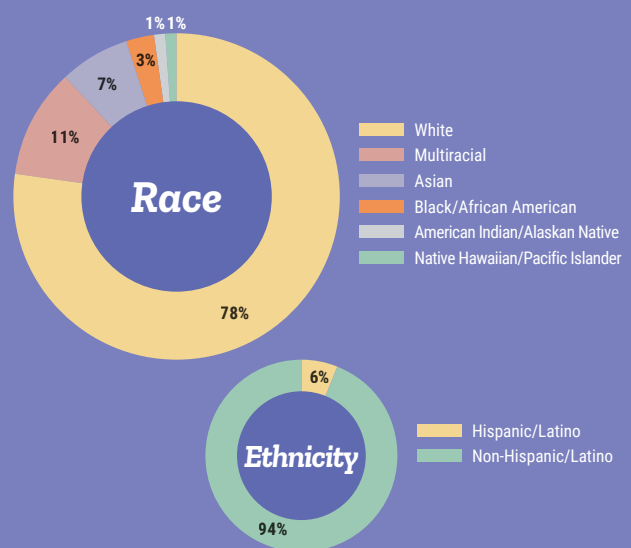


Figure 2.5 Project Survey Respondent Demographic Statistics

Survey respondents were asked to identify other improvements which they would like to see considered for the corridor. Below are listed some of the responses received:

"Streetlights (aside from aesthetics) would add better visibility at night and safety. Would prioritize that over landscaping, etc. (do first)"

"A safe route west of and separate from Meridian for pedestrians and cyclists."

"We need some safety measures for turning onto 102nd Ave E."

"Not a dog owner, but if there's an anticipated increase in dog walking traffic, we should consider offering some garbage/dog poop bags."

"More crosswalks that are well-lit, with blinking signs."

"No roundabouts added PLEASE."

"That is an incredible view of Rainier coming down the hill. Would be amazing to have a pull over or some way to allow folks to enjoy it."

"Roundabouts over traffic signals. Traffic always seems to move better."

"Too many wrecks on this road with 3 lanes. A barrier between lanes would be better for all."

"Railroad crossing bridge needs to be widened to four lanes."

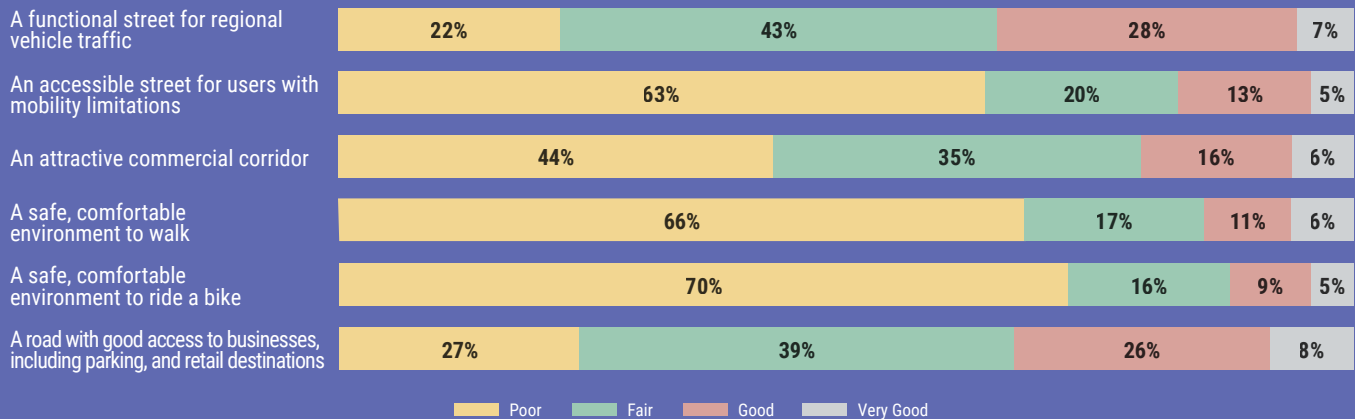
"A solution to the landslide issue on the downhill/western side where the asphalt has repeatedly cracked."

"Would love to see Edgewood get rid of the big ugly billboards along Meridian."

"Lowering speed limit or enforcing speed limit i.e. traffic cameras"

"Left turn lanes are important."

1. How does the Meridian Avenue Corridor fulfill the following functions?



2. How often do you walk, bike, ride transit, or drive along Meridian Avenue?

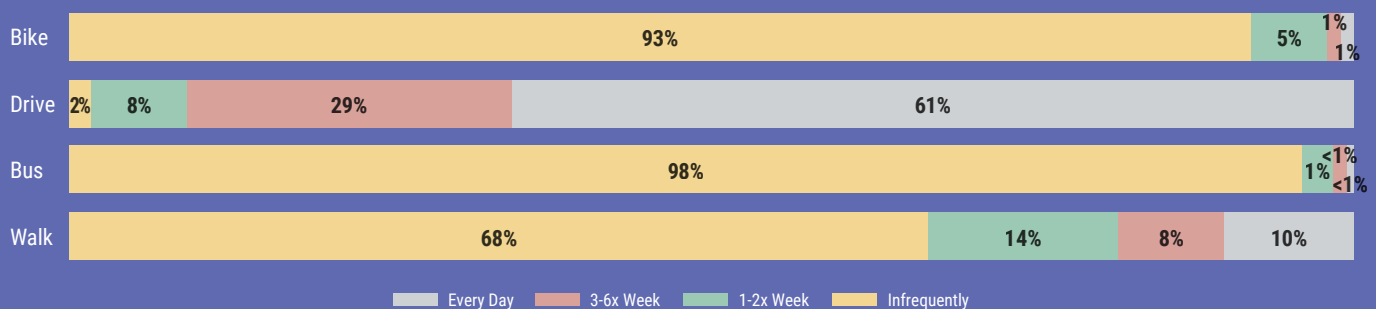


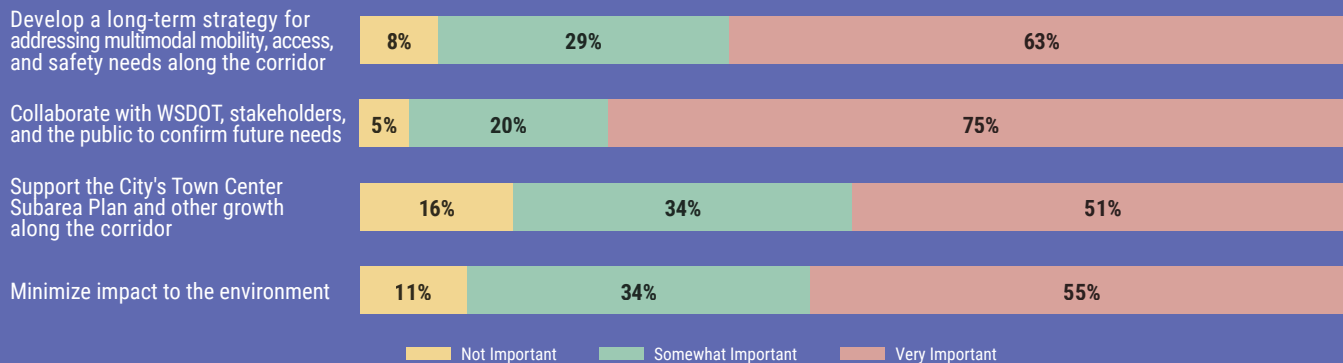
Figure 2.6 Project Survey Results: Existing Corridor Usage

The online survey questions covered a wide range of topics relating to mobility, accessibility, and operations along the corridor. In addition, the survey questions asked participants to rank the needs and priorities for the roadway. The respondents were also asked to provide feedback on the proposed design alternatives, which is discussed further in Chapter 5. Full survey results are provided in **Appendix B**. Key takeaways from the public survey responses included the following:

Current Roadway Conditions and Usage

- The existing corridor better functions as a roadway accommodating regional vehicular travel, with good access to adjoining businesses.
- Safety and comfort for walkers and rollers currently traveling along the roadway was rated very low.
- Most roadway users currently drive the corridor on nearly an every-day basis.
- Very few people travel the corridor via bicycle or transit.
- Nearly 1/3 of respondents walk along the corridor on a semi-frequent basis (at least once a week).

3. How important are the project goals to you?



4. On a scale of 1 (least) to 5 (most), please indicate level of importance for the following design criteria for Meridian Ave:

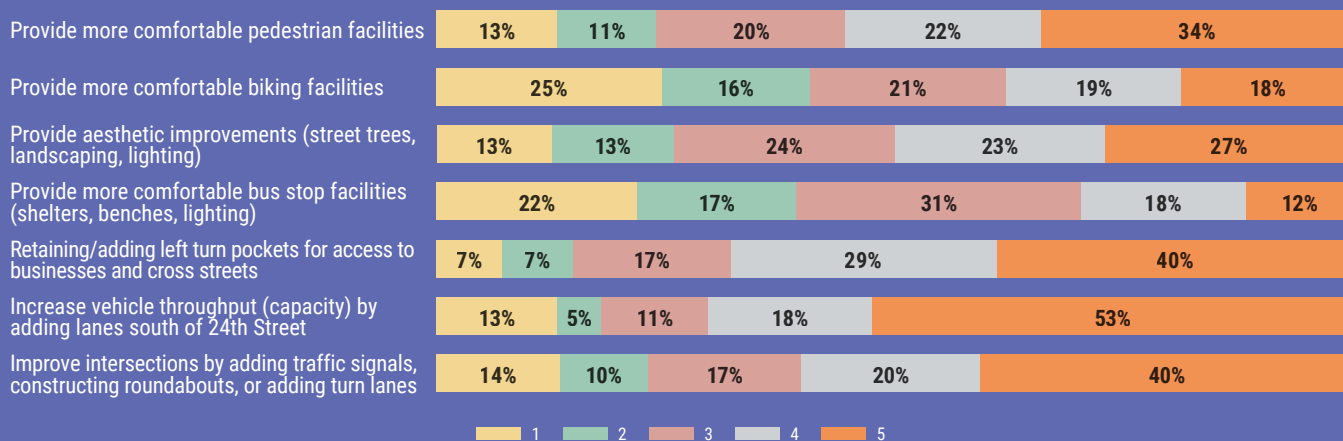


Figure 2.7 Project Survey Results: Proposed Corridor Priorities

Goals and Priorities for the Proposed Corridor Projects

- Collaboration with the public and stakeholders was identified as the most important project goal.
- Addressing multimodal mobility, access, and safety needs was the next most important goal.
- Improving vehicular capacity, access, and operations along the corridor was identified as the highest priority for the community. Survey respondents were generally in favor of most vehicle-related improvements (such as additional travel lanes, left-turn pockets, and new traffic control devices).
- Providing comfortable pedestrian facilities and aesthetic improvements (e.g., landscaping, lighting, street trees, etc.) was also important to many community members.
- Improving bicycle and transit facilities along the roadway lacked community support, with nearly 40% of respondents stating that these improvements were not very important.

3 Existing Conditions

To gain a comprehensive understanding of the current state of Meridian, it was essential to establish the groundwork for assessing the corridor needs and operational efficiency. This involved a thorough examination and analysis of multiple transportation parameters. This section outlines the data collection efforts conducted as part of this study and summarizes existing conditions along the corridor as they relate to population demographics, land use, traffic volumes, intersection operations, speed, safety, transit usage, and active transportation modes.

Per the City's Transportation Element, this roadway is designated as a Principal Arterial as it traverses the City. The detailed functional classification system of the City of Edgewood is shown in **Figure 3.1**.

Detailed summaries of all traffic data collected along the corridor (i.e., traffic volumes, vehicle classifications, speed data, etc.) are provided in **Appendix C**.

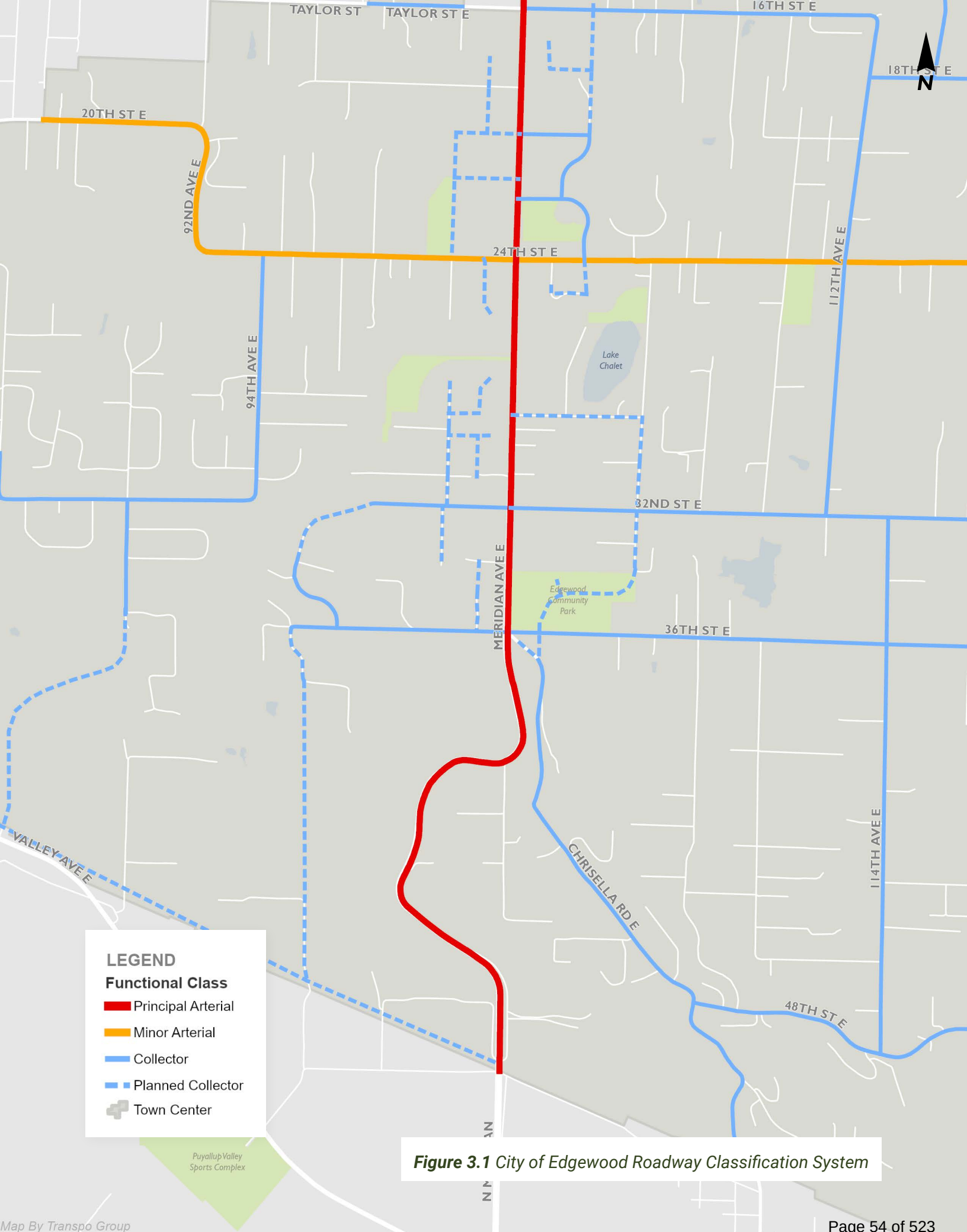


Figure 3.1 City of Edgewood Roadway Classification System

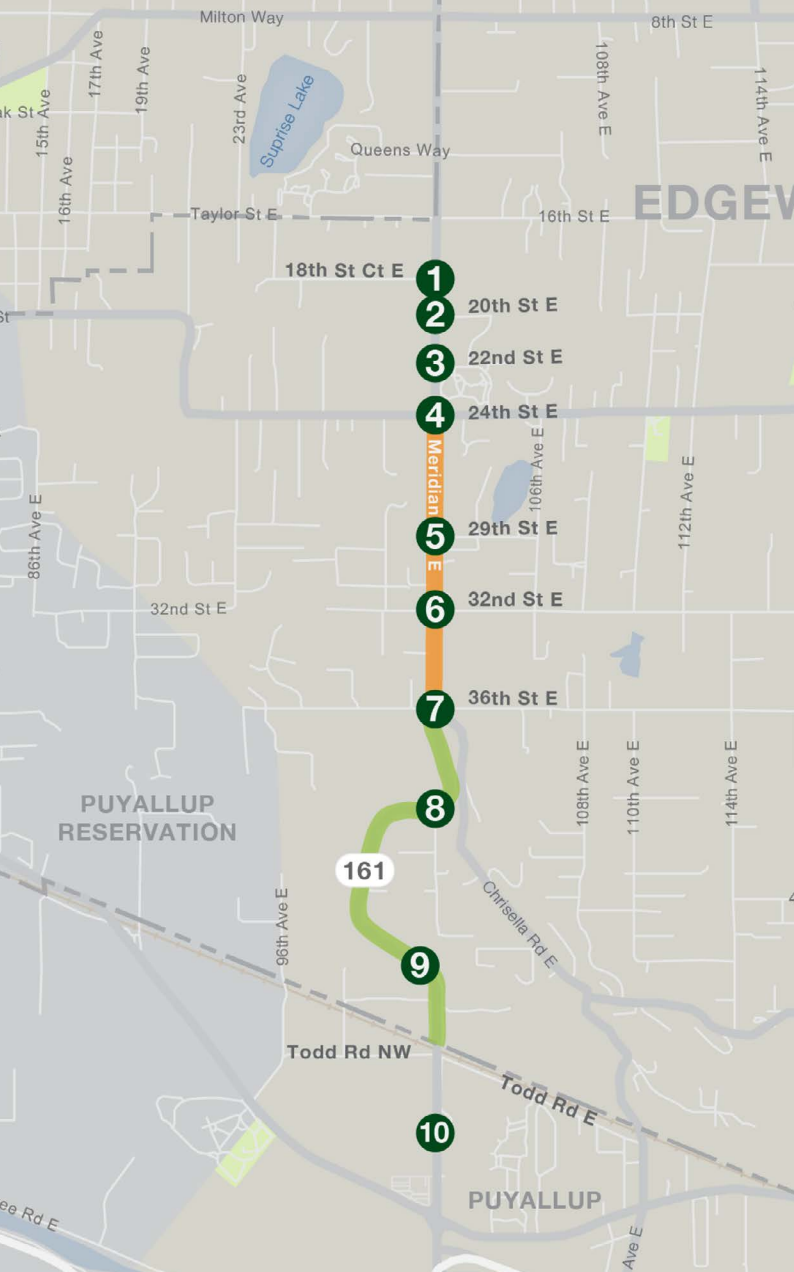


Fig 3.2 Study Area and Study Intersections

Table 3.1 Study Intersections along Meridian Ave E

#	Intersection	Traffic Control	Jurisdiction
1	Meridian Ave/18th St Ct E	TWSC	Edgewood
2	Meridian Ave/20th St E	TWSC	Edgewood
3	Meridian Ave/22nd St E	TWSC	Edgewood
4	Meridian Ave/24th St E	Signalized	Edgewood
5	Meridian Ave/29th St E	TWSC	Edgewood
6	Meridian Ave/32nd St E	TWSC	Edgewood
7	Meridian Ave/36th St E	Signalized	Edgewood
8	Meridian Ave/102nd Ave E	TWSC	Edgewood
9	Meridian Ave/Dechaux Rd	TWSC	Edgewood
10	Meridian Ave/Spencer St	TWSC	Puyallup

TWSC=Two-Way Stop-Controlled

Study Area

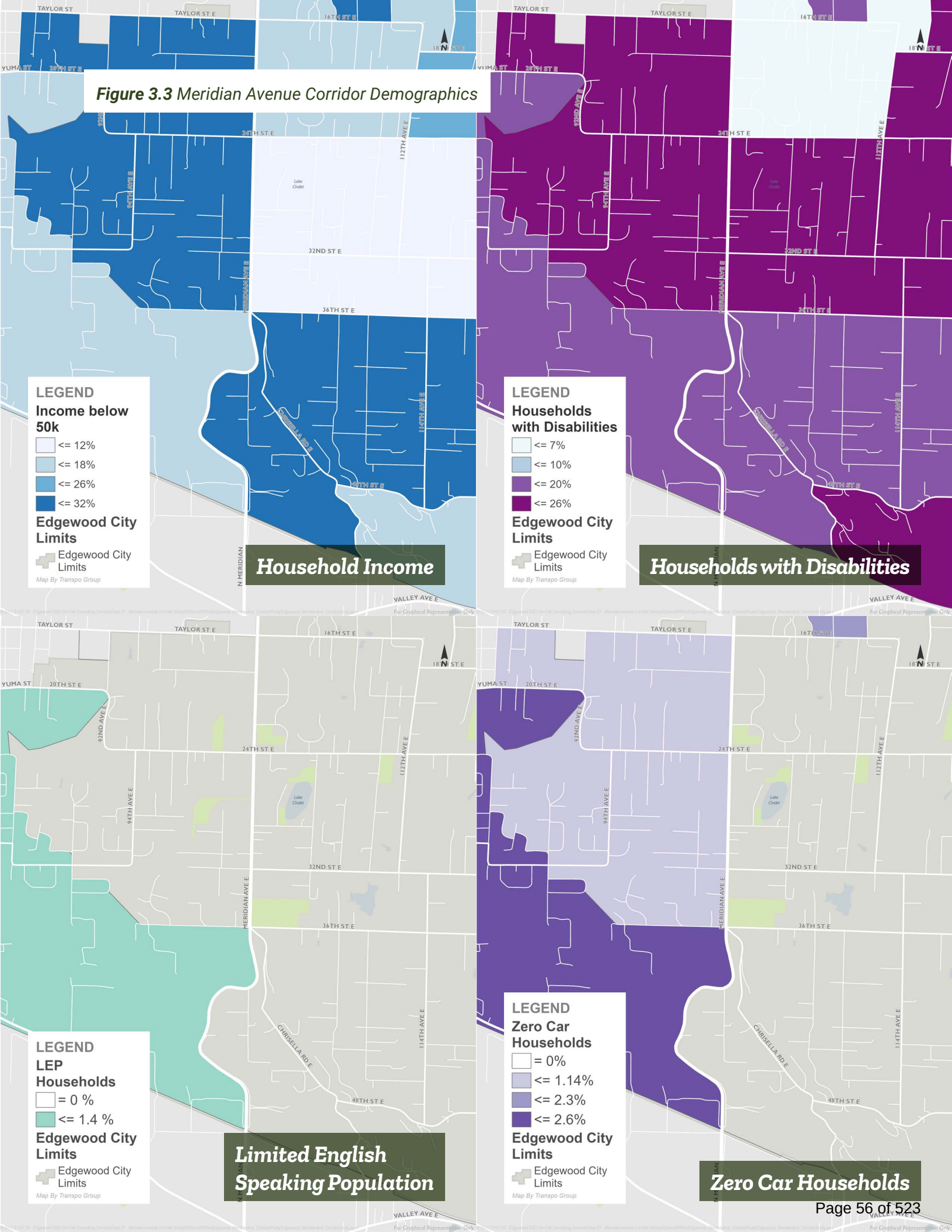
The study area includes the Meridian corridor between 18th to the north and Spencer Street North (Spencer) to the south within the City of Puyallup, as shown in **Figure 3.2**. While the corridor spans from 24th to the southern City limits at the Union Pacific Railroad tracks, additional study intersections north and south of the study corridor were analyzed as part of the project to evaluate the effects of the project improvements on operations at intersections within the Town Center area and in the City of Puyallup. The intersection operations were evaluated at ten key intersections along the corridor, presented in **Table 3.1**.

Demographic Data

To fully understand the needs of the communities along the Meridian corridor, an evaluation of demographic data for adjacent census tracts was conducted based on U.S. Census data collected in 2020. The maps below demonstrate some of the demographic trends for the corridor. Key conclusions drawn from the Census data include:

- The highest levels of low-income households are located along the northwest and southeast portions of the corridor.
- Over 20% of households along the entire corridor have members with disabilities.
- The Limited English Population (LEP) is relatively low along the corridor with only the southwestern portion having a small percent of households with limited English proficiency.
- The community is relatively car-dependent with all communities along the corridor having car ownership by over 98% of the population. The communities west of the corridor tend to have more households without private vehicles.

Figure 3.3 Meridian Avenue Corridor Demographics



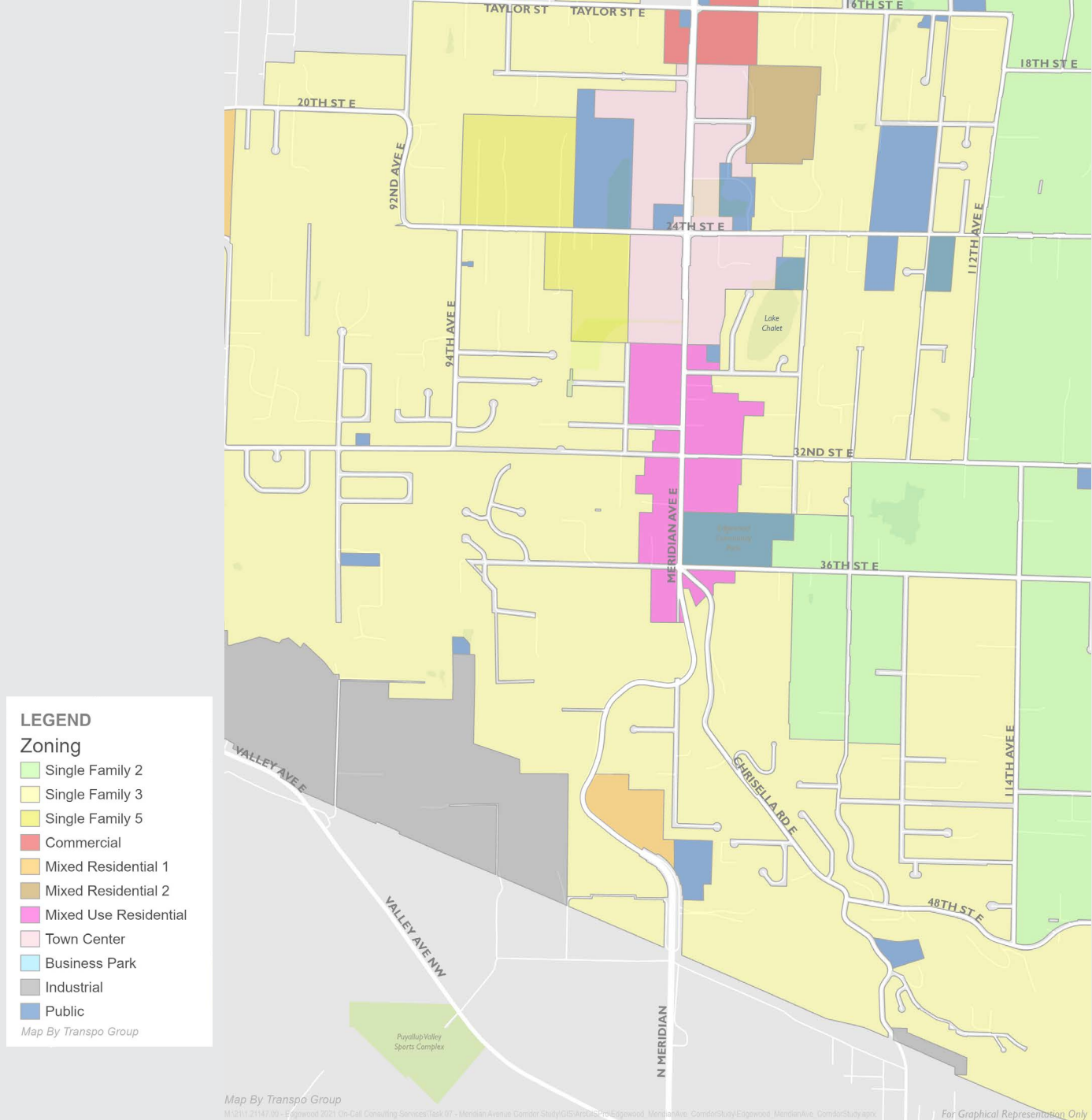


Figure 3.4 Zoning Map of City of Edgewood

Zoning and Land Use Data

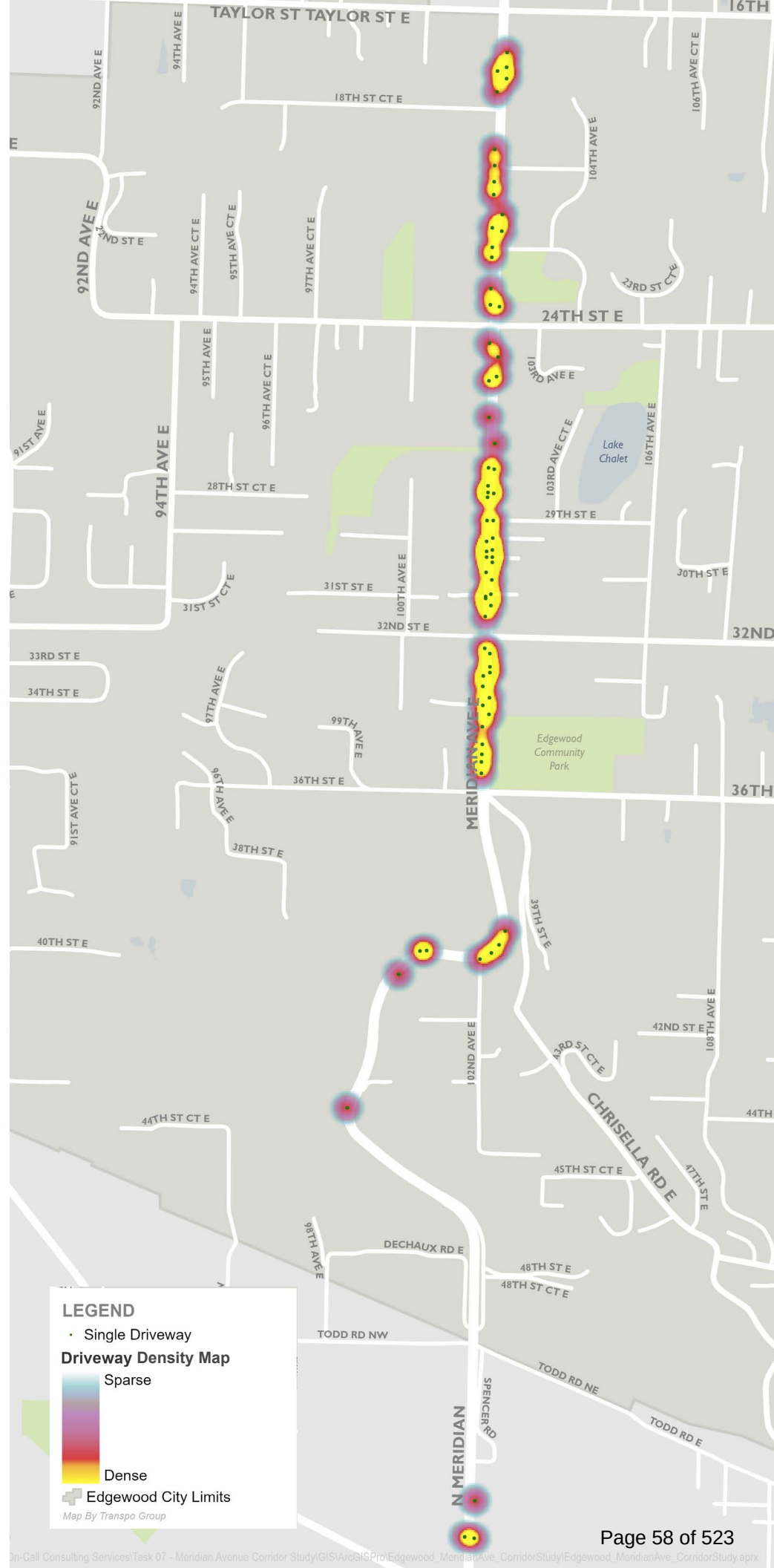
Zoning and land use patterns along the corridor were also reviewed to evaluate how development is expected to change along the corridor and how this change in development would affect future traffic patterns. The northern portion of the corridor is zoned for higher-density mixed-use developments in the Town Center area and immediately south to 36th. Aside from the Meridian corridor, the majority of City is zoned for detached residential

housing, which establishes Meridian as the prime location for future commercial development within the City. South of 36th, the roadway is primarily zoned for residential development, with the majority of parcels identified for detached residential housing aside from a small portion of land along the east side of Meridian that has been designated for mixed residential development.

Driveway Density

As a result of the expanding commercial and residential development along the Meridian corridor, the driveway density along the roadway is relatively high, especially between 24th and 36th. This segment of the corridor features a variety of land use types, including single family homes, industrial/automotive uses, and commercial businesses. While many new developments along the roadway limit vehicular access points to one or two driveway locations, many land uses include multiple driveway locations, including some with parking spaces directly accessible along the roadway. The high driveway density along the corridor, along with the provision of a two-way left-turn lane (TWLTL) results in a large number of vehicular conflict points along Meridian.

Figure 3.5 Meridian Driveway Density Map



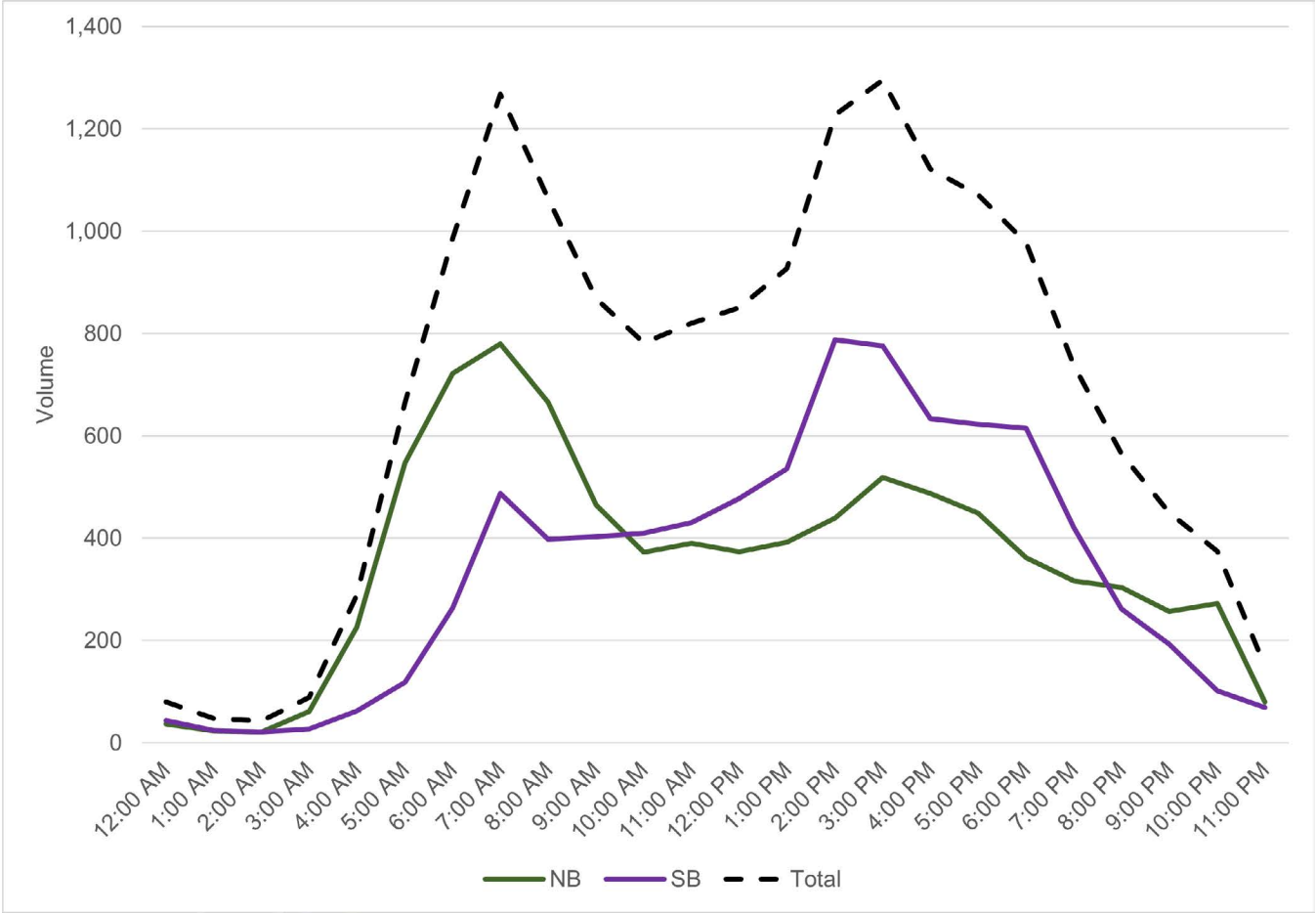


Figure 3.6 Meridian Midweek Average Hourly Volumes (south of 36th)

Corridor Traffic Volumes

Average daily traffic (ADT) volumes for the corridor were collected south of 36th in September 2022 using pneumatic tube data counters. Meridian experiences the highest volumes of all roadways within the City, experiencing large directional peaking in the morning and afternoon commute periods. A graph presenting the hourly volumes along the corridor is shown in **Figure 3.6**. As can be seen in the graph, elevated northbound volumes generally occur during the AM peak period between approximately 6 a.m. and 8 a.m. and elevated southbound volumes occur over a longer period in the PM peak period between approximately 2 p.m. and 6 p.m. These travel patterns are consistent with regional traffic flows and mirror the peak hour directional flows along I-5 and SR 167.

FHWA Vehicle Classifications

1. Motorcycles



2. Passenger Cars



3. Pickups, Panels, Vans



4. Buses



5. Single Unit 2-Axle Trucks



6. Single Unit 3-Axle Trucks



7. Single Unit 4 or More-Axle Trucks



8. Single Trailer 3-or 4-Axle Trucks



9. Single Trailer 5-Axle Trucks



10. Single Trailer 6 or More-Axle Trucks



11. Multi-Trailer 5 or Less-Axle Trucks



12. Multi-Trailer 6-Axle Trucks



13. Multi-Trailer 7 or More-Axle Trucks



Figure 3.7 FHWA Vehicle Classifications

In addition to vehicular volumes, vehicle classification data was collected along the corridor. Vehicles were classified based on the definitions published by the Federal Highway Administration (FHWA), shown in **Figure 3.7**. Vehicle classification data for Meridian is shown in **Figure 3.8**. Along Meridian, while approximately two-thirds of vehicles traveling along the corridor are standard passenger vehicles, pickup trucks, buses, and single- and multi-unit trucks comprised the remaining third of vehicles along the corridor. Generally, truck trips along Meridian tend to be higher in the northbound direction than the southbound direction.

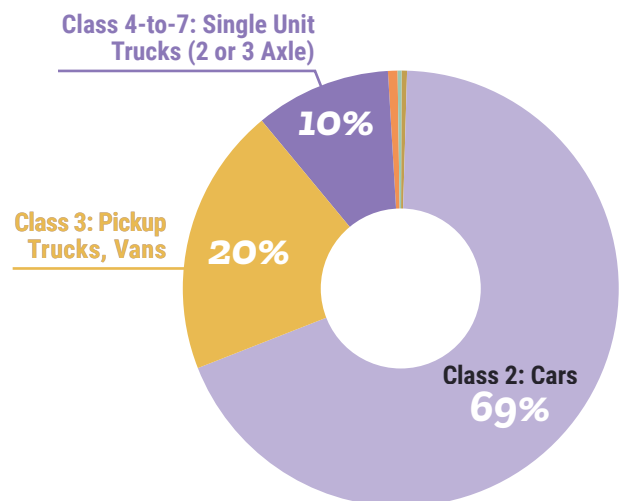


Figure 3.8 Meridian Vehicle Classifications

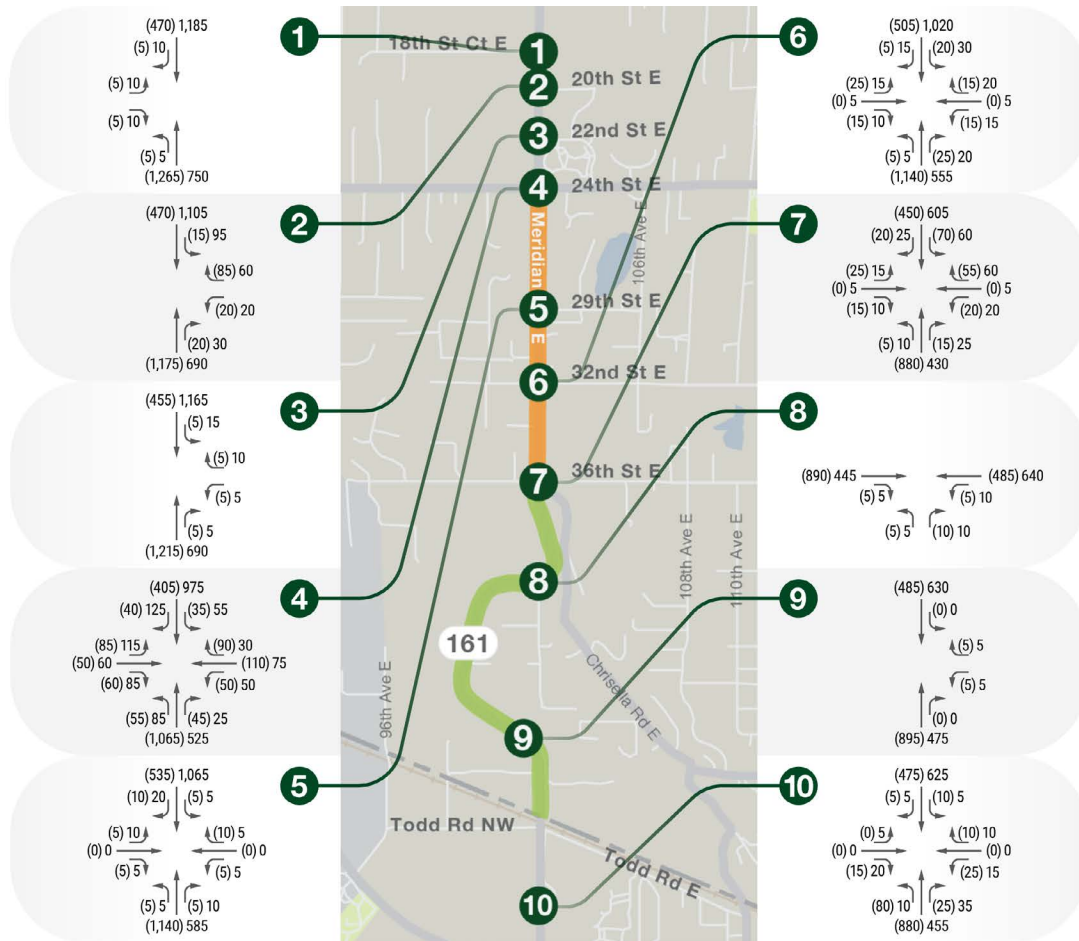


Figure 3.9 Weekday AM and PM Peak Hour Traffic Volumes

Weekday AM and PM peak hour traffic volumes were also collected at the ten study intersections in September 2022 and are shown in **Figure 3.9**. These counts were collected between 7 a.m. and 9 a.m. and 4 p.m. and 6 p.m. for the AM and PM peak periods, respectively. Total entering volumes at the ten study intersections are summarized in **Table 3.2**. Peak hour volumes along the study corridor tend to range between approximately 1,100 and 2,200 trips. Turning movement volumes tend to be highest at intersections in and adjacent to the Town Center area.

Table 3.2 Total Entering Traffic Volumes for Weekday AM and PM Peak Hour

#	Intersection	Total Entering Volumes	
		AM	PM
1	Meridian Ave/18th St Ct E	1,755	1,970
2	Meridian Ave/20th St E	1,785	2,000
3	Meridian Ave/22nd St E	1,690	1,890
4	Meridian Ave/24th St E	2,090	2,205
5	Meridian Ave/29th St E	1,725	1,715
6	Meridian Ave/32nd St E	1,760	1,705
7	Meridian Ave/36th St E	1,555	1,615
8	Meridian Ave/102nd Ave E	1,400	1,115
9	Meridian Ave/Dechaux Rd	1,390	1,110
10	Meridian Ave/Spencer St	1,525	1,185

Table 3.3 Existing Weekday Peak Hour Intersection LOS Summary

Intersection	Traffic Control	AM Peak Hour			PM Peak Hour		
		LOS ¹	Delay ²	WM ³	LOS ¹	Delay ²	WM ³
Meridian Ave/18th St Ct E	TWSC	B	13	EB	C	23	EB
Meridian Ave/20th St E	TWSC	D	28	WBL	D	30	WBL
Meridian Ave/22nd St E	TWSC	C	20	WB	B	14	WB
Meridian Ave/24th St E	Signalized	C	33	-	C	29	-
Meridian Ave/29th St E	TWSC	E	46	WB	F	73	EB
Meridian Ave/32nd St E	TWSC	F	70	EB and WB	F	89	EB
Meridian Ave/36th St E	Signalized	B	11	-	C	25	-
Meridian Ave/102nd Ave E	TWSC	C	21	NB	D	26	NB
Meridian Ave/Dechaux Rd	TWSC	D	26	WB	B	11	WB
Meridian Ave/Spencer St	TWSC	F	102	WBL	D	31	WBL

Note: TWSC=Two-Way Stop-Controlled, RAB= Roundabout. **Bold Red** indicates the operations are below city LOS standards

1. Level of Service (A – F) as defined by the Highway Capacity Manual 6th Edition (TRB, 2016)

2. Average delay per vehicle in seconds.

3. Worst Movement (WM) reported for TWSC intersections

Traffic Operations

The operational characteristics of an intersection are determined by calculating the intersection level of service (LOS). At all-way stop-controlled intersections, LOS is measured in average delay per vehicle during the peak hour of traffic and is reported for the overall intersection delay. For signalized locations, LOS is measured in average delay per vehicle and is reported for the intersections as a whole. Traffic operations for an intersection can be described alphabetically with a range of levels of service (LOS A through F), with LOS A indicating free-flowing traffic and LOS F indicating extreme congestion and long vehicle delays. **Appendix D** contains a detailed explanation of LOS criteria and definitions.

Weekday AM and PM peak hour traffic operations for existing and future conditions were evaluated at the signalized study intersections using the *Synchro 12* software program based on the procedures identified in the *Highway Capacity Manual (HCM)* (2016). Traffic operations at the roundabout intersections (under future

conditions) were evaluated using the *Sidra 8* software program. Heavy vehicle percentages observed during the midweek peak hour counts were incorporated in the Synchro analysis. The intersection operations are summarized in **Table 3.3**. Detailed LOS worksheets for each intersection analysis are included in **Appendix E**.

As outlined in the City's Concurrency Review & TIA Guidelines, the level of service standard for intersections along Meridian is LOS E. As shown in **Table 3.3**, most study intersections operate at LOS E or better during the weekday AM and PM peak hours, except the following two-way stop-controlled intersections:

- Meridian/29th – PM peak hour
- Meridian/32nd – AM and PM peak hours
- Meridian/Spencer – AM peak hour

Note that while the side street approaches to these intersections operate at LOS F, the northbound and southbound approaches along Meridian operate at an acceptable LOS.

Figure 3.10 Existing Weekday AM and PM Hour LOS Results

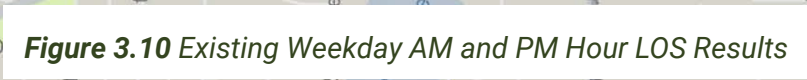


Table 3.4 Meridian Avenue, South of 36th Street E Speed Data Summary

Direction	Posted Speed (mph)	ADT ¹	Median Speed (mph)	85th Percentile (mph)	10 mph Pace	% in Pace	% Vehicles 5 mph over Speed Limit ²
Northbound	35	8,000	38	43	33-43	76%	34%
Southbound	35	7,900	34	38	29-39	84%	4%

1. Average Weekday Daily Traffic.

2. Represents the vehicles exceeding the posted speed limit by at least 5 mph

Vehicular Speeds

Speeds for all vehicles were collected along Meridian (south of 36th) over a seven-day period in September 2022. Detailed summaries of the speed data by direction are included in **Appendix C**. The posted speed limit of the roadways during the data collection period was 35 mph along Meridian.

Key speed indicators include the median speed, 85th percentile speed, 10 mph pace, percent in pace, and percent of vehicles 5 mph over the speed limit. The key indicators are used to help identify if a speeding problem exists and to what extent. The indicators also assist in determining appropriate engineering treatments to consider to better manage vehicle speeds, if warranted. The definition and purpose of the speed indicators are described below. **Table 3.4** summarizes the key speed indicators for the study corridor.

- **Median Speed** The speed in which 50 percent of all traffic is traveling at or below. The statistical median is not typically used in determining the appropriate posted speed limit but is used as a point of reference in understanding the prevailing conditions. Ideally, the median speeds should be under the posted speed limit.
- **85th Percentile Speed** The speed at which 85 percent of the traffic is traveling at or below. The 85th percentile speed is often used as a starting point for determining the speed limit, to take into account that 15 percent of drivers may be traveling unreasonably fast. Typically, the 85th percentile speed should be within 5 to 10 mph of the posted speed.

- **10 mph Pace** The 10 mph pace is a measure of the range in speeds and is defined as the consecutive 10 mph range containing the highest number of vehicles. Typically, the posted speed limit should be near the upper limit of the 10 mph pace.
- **Percent in Pace** The percent in pace represents the percentage of all vehicles traveling within the 10 mph pace. It is desirable to have a high percentage of the total number of vehicles in the 10 mph pace.
- **Percent of Vehicles 5 mph over the Speed Limit** A measure representing the number of vehicles traveling over the posted speed limit by at least 5 mph. As a general guideline, speeding along a roadway segment may be an issue when more than 15 percent of the vehicles exceed the speed limit by at least 5 mph.

As **Table 3.4** shows, the number of vehicles exceeding the posted speed limit by at least 5 mph is between 4 percent and 34 percent along Meridian. The review of speeds indicates that study corridor experiences some speeding issues in the northbound direction.

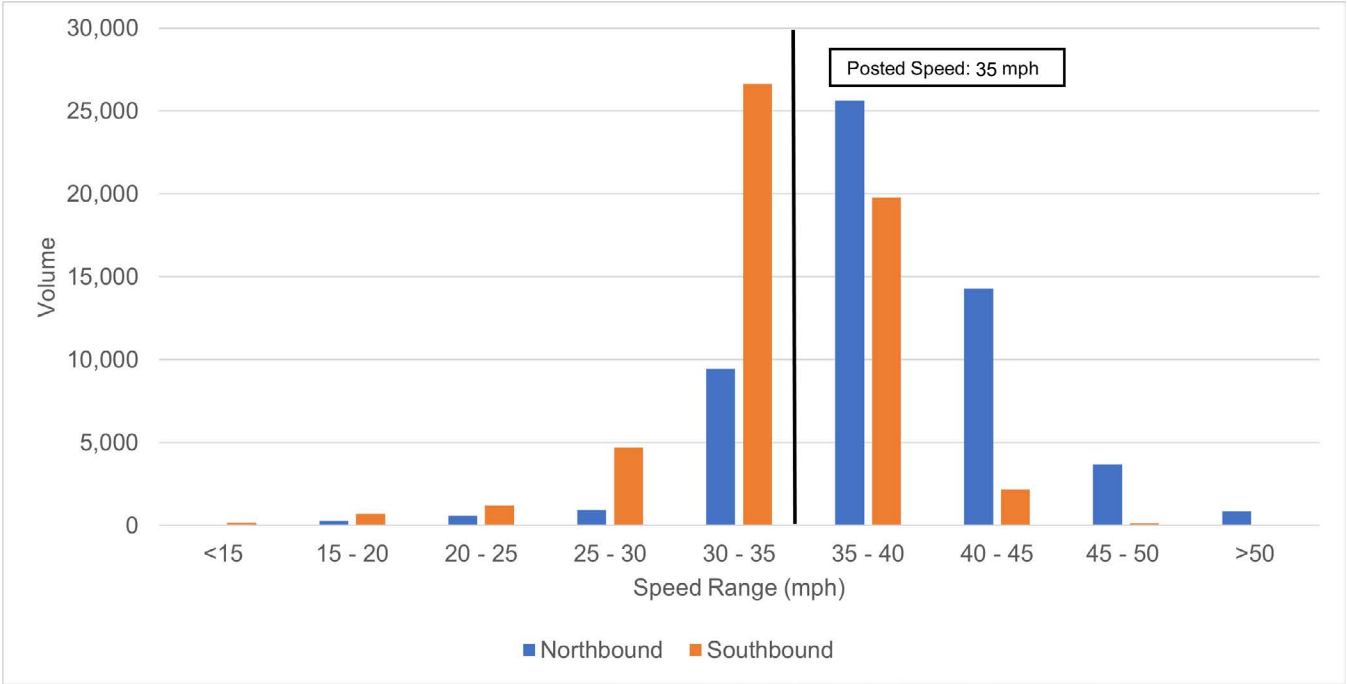


Figure 3.11 Meridian Speed Distribution

To further summarize the speed analysis, the chart in **Figure 3.11** illustrates the vehicle speeds collected at the count location along the corridor. Individual data points were grouped into 5 mph hour ranges and graphed by direction. **Figure 3.11** summarizes the speed distribution along the corridor. The graph shows the average daily number of vehicles operating in speed ranges of 5 mph.

Roadway Safety

A traffic safety study was conducted along Meridian, between 18th and Spencer. Collision records for a five-year period between 2017 to 2021 were sourced from WSDOT. These collisions were classified into intersection crashes, non-intersection crashes, pedestrian and bicycle crashes, as well as fatal and serious injury crashes.

Figure 3.12 illustrates a heatmap identifying high-collision locations along the corridor. As shown, most collisions occurred at intersections along the roadway.

Analyzing collision records along Meridian provides insights into the historical safety performance of this area. The segment of Meridian between Jovita Boulevard East (Jovita) and 24th has historically exhibited past safety concerns. However, after the improvements were installed along this section of the corridor in 2012, safety benefits have been observed with intersections along this segment of the corridor experiencing lower collision rates than the unimproved segment south of 24th. Nevertheless, the five-year collision record reveals persisting crash records at the Meridian/24th intersection, particularly with a high frequency of rear-end collisions.

Similarly, the two-way stop-controlled intersections at Meridian/29th and Meridian/32nd also displayed elevated collision rates. Rear-end collisions represent the most frequent collision type at these intersections, which may be associated with left-turning vehicles slowing as they enter the two-way left-turn pocket.

Notably, a significant proportion (approximately 50% of total crashes) at the Meridian/36th intersection involves injuries, highlighting safety concerns under current conditions. At this location, rear-end and angle collisions predominate, suggesting non-compliance with traffic controls. Additionally, the 5-leg configuration of this intersection, (featuring a stop sign at one approach) may result in additional driver confusion and may contribute to the high collision rate.

Meridian/102nd experienced the highest collision rate along the corridor. This three-leg intersection experienced more than one collision per million vehicles entering with a 25 percent injury rate. The primary collision types at this intersection include rear-end crashes, followed by fixed object crashes and sideswipe incidents. The lack of a southbound left-turn pocket and high north-south volumes along Meridian may contribute to high collision rates associated with left-turn movements to and from 102nd.

Figure 3.12 Meridian Avenue Collision Density Map

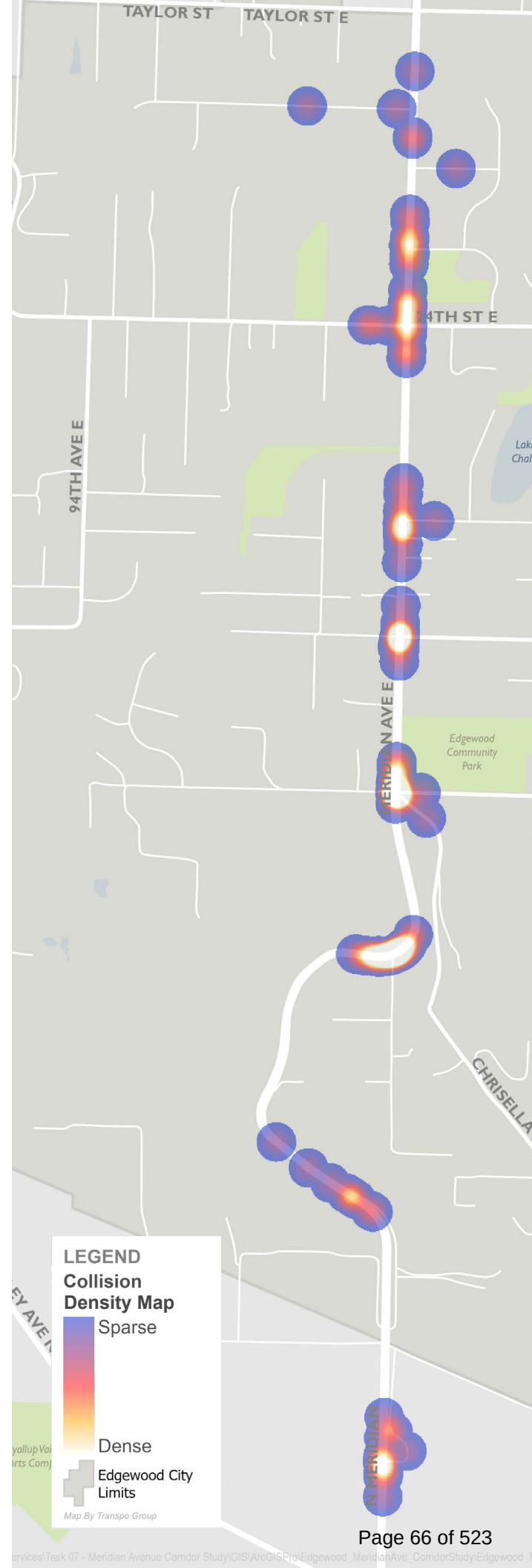


Table 3.5 Five-Year Collision Summary at Intersections– 2017 to 2021

Intersection	Number of Collisions					Total	Severity ¹				
	2017	2018	2019	2020	2021		K	A	B	C	O
Meridian Ave/18th St Ct E	0	3	1	2	0	6	0	0	0	0	6
Meridian Ave/20th St E	2	2	1	1	5	11	0	0	1	3	7
Meridian Ave/22nd St E	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave/24th St E	1	2	6	1	6	16	0	0	1	2	13
Meridian Ave/29th St E	3	2	2	3	3	13	0	0	0	1	12
Meridian Ave/32nd St E	1	4	1	5	2	13	0	0	2	4	7
Meridian Ave/36th St E	5	7	2	7	4	25	0	0	1	3	21
Meridian Ave/102nd Ave E	8	9	2	7	4	30	0	0	1	6	23
Meridian Ave/Dechaux Rd	3	4	1	0	1	9	0	1	1	2	5
Meridian Ave/Spencer St	2	3	4	2	3	14	0	0	0	4	10
Intersection Subtotal	25	36	20	28	28	137	0	1	7	25	104

Source: WSDOT, 2021

1. K = Fatal, A = Incapacitating Injury, B = Non-Incapacitating Injury, C = Possible Injury, O = No Injury

Table 3.6 Five-Year Collision Summary at Roadway Segments– 2017 to 2021

Roadway Segment	Number of Collisions					Total	Severity ¹				
	2017	2018	2019	2020	2021		K	A	B	C	O
Meridian Ave between 18th St and 20th St	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave between 20th St and 22nd St	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave between 22nd St and 24th St	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave between 24th St and 29th St	1	4	8	0	2	15	0	0	1	2	12
Meridian Ave between 29th St and 32nd St	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave between 32nd St and 36th St	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave between 36th St and 102nd Ave	0	0	0	0	0	0	0	0	0	0	0
Meridian Ave between 102nd Ave and Dechaux Rd	2	4	0	2	3	11	0	1	0	3	7
Meridian Ave between Dechaux Rd and Spencer St	1	3	3	0	0	7	0	0	1	2	4
Segment Subtotal	4	11	11	2	5	33	0	1	2	7	23

Source: WSDOT, 2021

1. K = Fatal, A = Incapacitating Injury, B = Non-Incapacitating Injury, C = Possible Injury, O = No Injury

There are no recorded pedestrian and bicycle crashes along the corridor, primarily due to low pedestrian and bicycle activity. Also, no fatalities are recorded in the collision data within the study corridor.

A detailed overview of collision data along the corridor is provided in **Tables 3.5 and 3.6**, for intersections and road segments along Meridian, respectively.

Transit

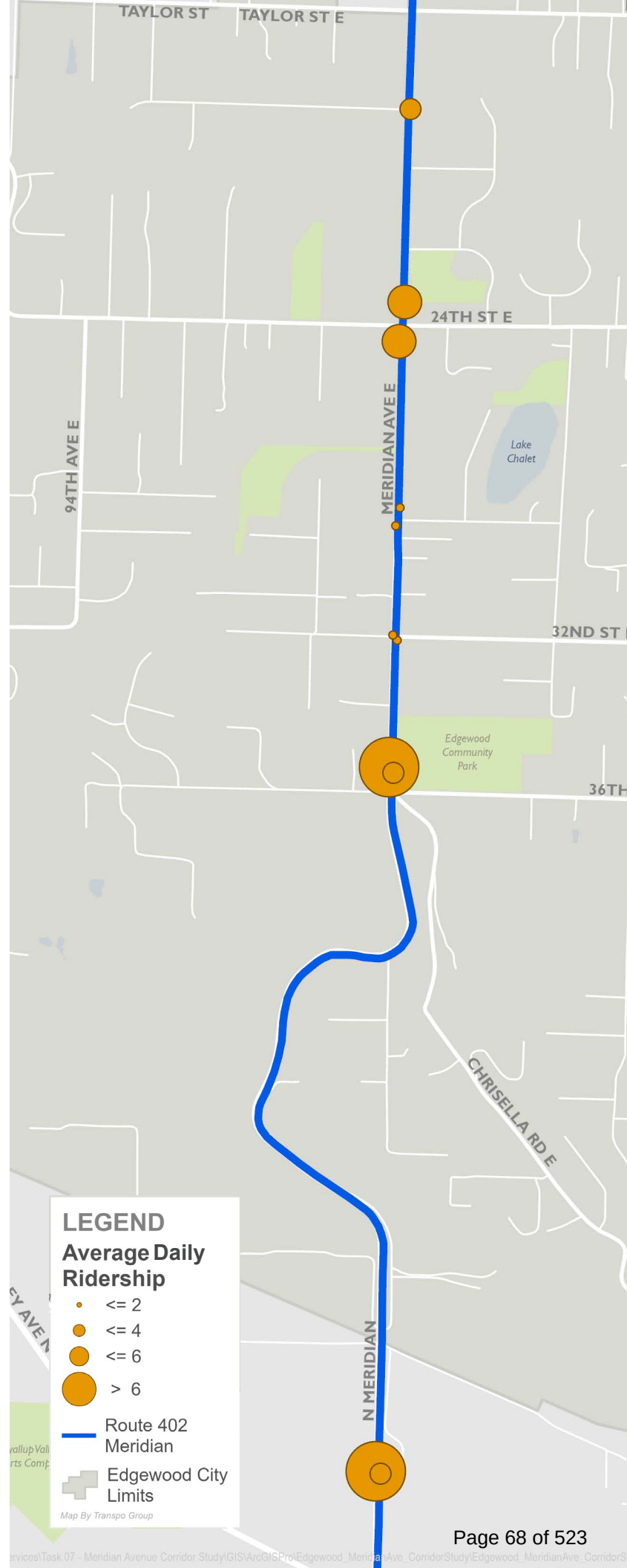
Pierce Transit provides transit services to Edgewood via one route. Route 402 operates along Meridian (Federal Way to Puyallup) with approximately 30 minutes headways on weekdays and 60 minute headways on weekends. This route operates between 5 a.m. and 9 p.m. on weekdays with limited service hours on Saturdays and Sundays.

This route features stops positioned at or near major intersections along Meridian including:

- 20th (northbound only)
- 24th (northbound and southbound)
- 29th (northbound and southbound)
- 32nd (northbound and southbound)
- 36th (northbound and southbound))
- Spencer (northbound and southbound)

On average, fewer than 10 riders board/alight Route 402 at these locations on a daily basis. Along the project corridor, the stops located at 36th and Spencer exhibit the highest daily boarding/alighting totals with more than seven passengers per day getting on or off the bus at these locations. **Figure 3.13** provides a map showing the daily bus boarding and alighting data for Route 402 bus stops along Meridian.

Figure 3.13 Pierce Transit Route 402
Daily Bus Boarding/Alighting Data



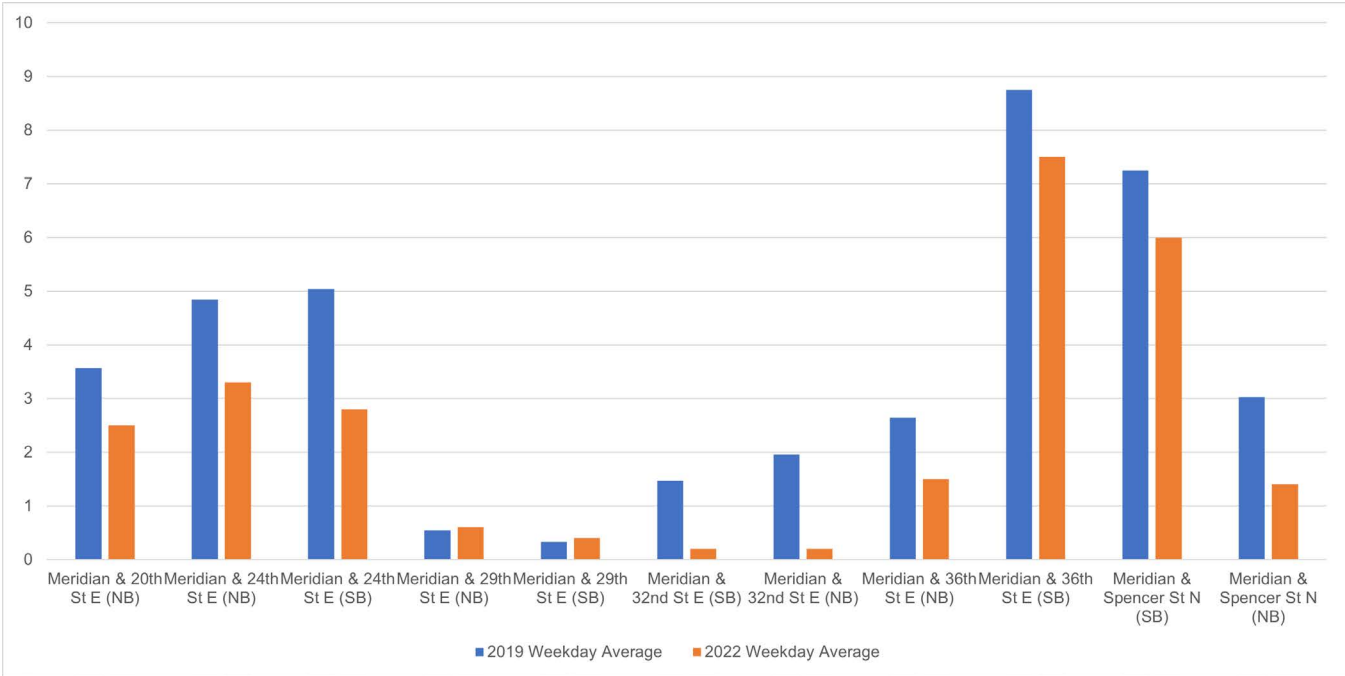


Figure 3.14 Pierce Transit Route 402 Average Daily Boarding and Alighting Data – 2019 vs. 2022

Figure 3.14 presents the average daily transit boarding/alighting totals for Route 402 stops along Meridian for 2019 and 2022. As shown, most bus stops along the corridor experienced a decrease in transit ridership between 2019 and 2022 following the COVID-19 pandemic. This drop in ridership can be attributed to various factors arising out of the pandemic, including the increase in work-from-home or hybrid employment models. Despite the overall drop in ridership, bus stops at 36th and Spencer continued to exhibit higher boarding/alighting volumes than other stops along the corridor, with the southbound direction exhibiting higher transit ridership than the northbound direction.

Active Transportation System

An Urban Bike and Pedestrian Route currently exists along Meridian, extending from the northern City limits to 24th. As part of the recent improvements

to Meridian, non-motorized facilities (sidewalks and bike lanes) were installed along the roadway north of 24th. However, along the project segment of Meridian (south of 24th Street E) there are constraints in terms of sidewalk availability. Between 24th and 29th, sidewalks are present along some sections of the roadway, however, gaps in the network create a barrier to continuous ADA connectivity along the corridor. South of 29th, there are limited to no sidewalks available. **Figure 3.15** displays an overview of the sidewalk facilities along Meridian.

In addition to limited sidewalk facilities, few crosswalk locations are present along the corridor that provide pedestrians with a dedicated location to cross Meridian. The existing crosswalks are situated at the following signalized intersections along the study corridor:

- Meridian/24th: standard parallel bar crosswalk
- Meridian/36th: high-visibility continental crosswalk

These crossing locations are located approximately 0.75-miles apart from each other, providing poor pedestrian connectivity for land uses along the corridor.

Figure 3.15 Pedestrian and Bicycle Facilities within the City of Edgewood

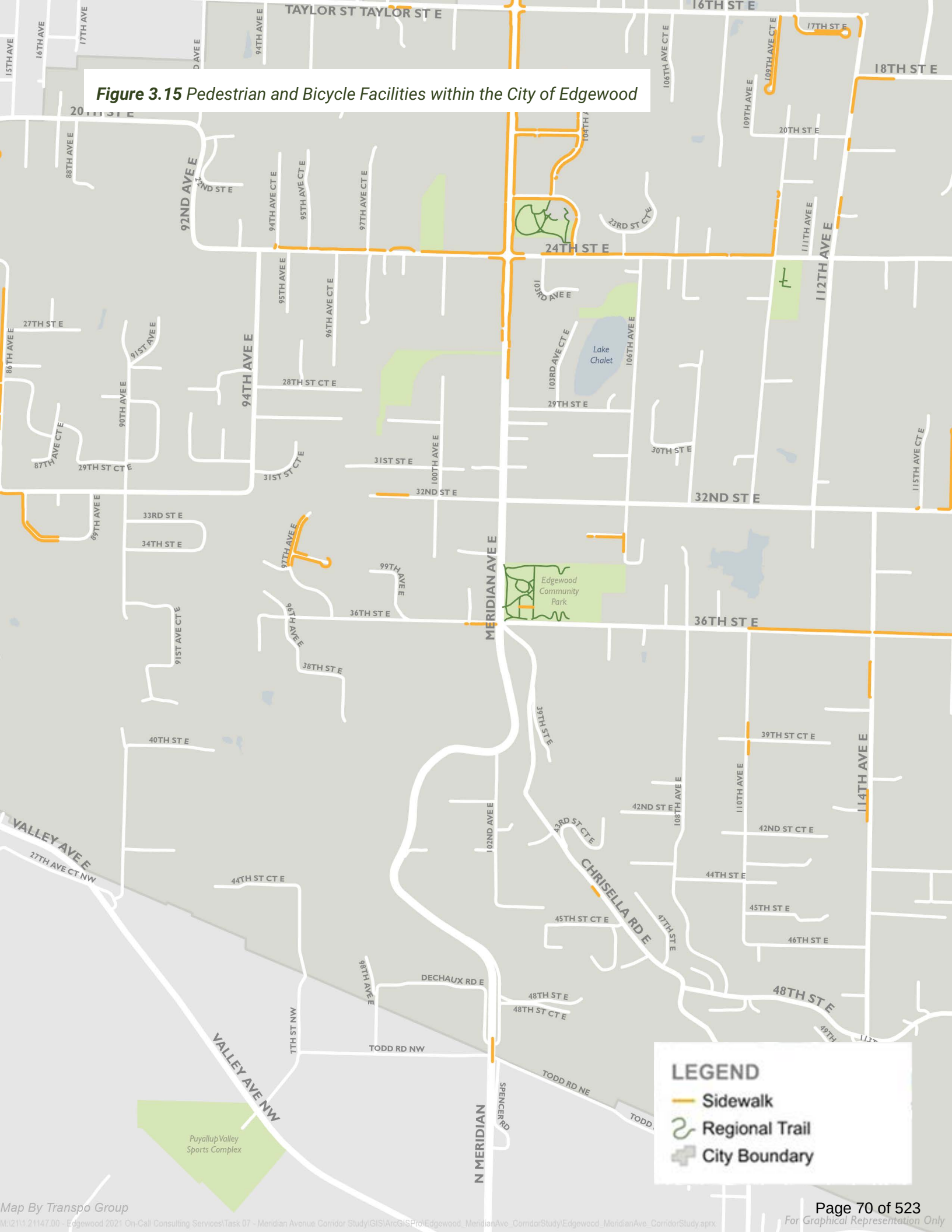


Table 3.7 Pedestrian and Bicycle Volume for Weekday AM and PM Peak Hour

#	Intersection	Pedestrian Volume		Bicycle Volume	
		AM	PM	AM	PM
1	Meridian Ave/18th St Ct E	0	2	0	0
2	Meridian Ave/20th St E	1	10	0	0
3	Meridian Ave/22nd St E	1	10	0	0
4	Meridian Ave/24th St E	4	9	0	0
5	Meridian Ave/29th St E	0	0	0	0
6	Meridian Ave/32nd St E	0	2	0	1
7	Meridian Ave/36th St E	0	3	0	2
8	Meridian Ave/102nd Ave E	0	0	0	0
9	Meridian Ave/Dechaux Rd	0	0	0	0
10	Meridian Ave/Spencer St	0	3	0	0

Pedestrian counts were collected at intersections during both the weekday AM and PM peak hours and are summarized in **Table 3.7**. The data showed minimal pedestrian activity along the corridor, especially during the AM peak hour. However, during the PM peak hour, increased pedestrian activity was observed in the Town Center area of the corridor between 20th and 24th.

Bicycle traffic volumes were also collected at the study intersection and are shown in **Table 3.7**. These counts also revealed minimal to no bicycle activity at intersections across the corridor. This lack of activity may be attributed to the absence of dedicated bike lanes along the corridor, although a narrow shoulder is present and could potentially be utilized for this purpose.

4 Forecast Conditions

To ensure that the proposed improvements for the corridor can accommodate future traffic demands within the region, volume forecasts were prepared for Meridian for future year 2035. These volumes were used to analyze operational conditions at intersections along the roadway. These volumes and operations were used to identify the necessary capacity improvements for the corridor to handle regional traffic growth. This section presents the methodologies, assumptions, and results of the future volume forecasting and a review of planned changes to the existing transportation network.

Table 4.1 Model Growth Rate Comparison (Edgewood Model vs. Tacoma Freight Model)

Model Data Set	Annual Growth Rate (SR 161 north of 36th St)		
	Southbound	Northbound	Total
TFM without SR 167 completion	0.30%	2.77%	1.12%
TFM with SR 167 completion	0.17%	1.76%	0.66%
Edgewood Model	0.19%	1.33%	0.64%

Future Volume Forecasting Methodology

Future volume forecasts for the Meridian corridor were developed using the Edgewood Travel Demand Model. The model base year of 2011 and future year of 2035 were used to determine the expected growth in traffic volumes at the study intersections between the existing year (2022) and future year (2035). Land use assumptions for the Edgewood Travel Demand Model future year were updated to account for the latest land use plans and anticipated development projects along the corridor. The existing weekday peak hour traffic counts collected at the 10 study intersections were used as the basis for developing the future volume forecasts.

Two separate forecasting methodologies were applied to develop the future year (2035) volumes forecasts at the study intersections for the weekday AM and PM peak hours. Forecasts were developed first for the PM peak hour by calculating the portion of the model growth expected to occur between the existing year (2022) and the future year (2035). This growth was added to the existing traffic counts at the study intersections to develop the 2035 forecast volumes. The 2035 traffic volumes developed for the Meridian project are generally consistent with the future volume forecasts prepared for the City of Edgewood 2024 Comprehensive Plan update. The AM peak hour forecasts were developed using growth rates calculated from the PM peak hour forecast

volumes. The scale and direction of growth rates developed from the PM peak hour were adjusted to align with conditions for the AM peak hour.

SR 167 Extension Project Forecast Comparison

As discussed in Chapter 1, the proposed SR 167 Extension project is expected to alter regional traffic patterns in Edgewood and the surrounding communities. Thus, to ensure that the forecast volumes developed for the Meridian study account for these changes, volume outputs from the Tacoma Freight Model (TFM), which includes most roadways in Pierce and King Counties, was reviewed for consistency with outputs from the Edgewood Travel Demand Model. The TFM outputs were reviewed both with and without the SR 167 Extension improvements.

Annual growth rates along Meridian, north of 36th, were calculated from the TFM and Edgewood Travel Demand Model and are presented in **Table 4.1**. As shown, the growth rates in the Edgewood Travel Demand model are consistent with the growth rates in the TFM model assuming the completion of the SR 167 Extension Project. Therefore, the growth rates developed using the City’s model were shown to account for the changes in travel patterns associated with the regional SR 167 project and no further adjustments to volume forecasts were deemed necessary.

Table 4.2 Meridian Corridor Traffic Volume Growth (Weekday PM Peak Hour)

Segment	Northbound			Southbound		
	2022	2035	Annual Growth %	2022	2035	Annual Growth %
Meridian Ave, bet. 24th St and 32nd St	635	820	2.0%	1,110	1,285	1.1%
Meridian Ave, bet. 32nd St and 36th St	580	770	2.2%	1,040	1,295	1.7%
Meridian Ave, s/o 36th St	465	625	2.3%	630	925	3.0%

Roadway Widening: Induced Demand

In addition to evaluating whether the volume forecasts reflect changes associated regional road network improvements, the Edgewood Travel Demand model was used to determine whether the addition of travel lanes along Meridian would result in induced demand along the roadway. When capacity is added to a roadway, increased travel speeds and reduced travel time can incentivize increased trip making, as traveling by private vehicle becomes easier and more convenient. Using the City's model, the impact of additional travel lanes between 24th and 36th along the corridor was evaluated to determine the impact on regional trip making. Based on the model outputs, the increase in capacity on Meridian is expected to have a minimal effect on regional trip making, with minimal increases in traffic localized to the corridor and connecting roadways. Thus, no further adjustments to future volume forecasts were deemed necessary to account for the effects of induced demand.

Future Volume Forecasts

Using the methodology described above, future volume forecasts were developed for the Meridian corridor. Between 2022 and 2035, traffic volumes

are expected to increase along the roadway by between 30 and 35 percent. The largest increases in volumes are anticipated along higher designation roadways in and around the City (e.g., Meridian, Jovita, Milton Way, 24th). In the northbound direction, annual volume increases of approximately 2 percent are expected along the project corridor during the PM peak hour. In the southbound direction, the annual growth rate during the PM peak hour is expected to range between 1 and 3 percent, with greater increases in volumes anticipated along the southern portion of the corridor. **Table 4.2** presents the PM peak hour expected volume growth and annual growth rates forecast for the project segment of Meridian.

Note that the southern portion of the corridor (Segment 2) is forecast to experience higher growth rates during the PM peak hour, especially in the southbound direction. This growth rate accounts for increases in regional traffic along Meridian, as well as a shift in regional traffic from adjacent local roadways to the Meridian corridor. Currently, due to congestion at the SR 167 interchange, regional traffic traveling along Segment 1, north of 36th, diverts from Segment 2, south of 36th, to Chrisella to travel down the hill. With improvements planned along Meridian (south of the project corridor) as part of the SR 167 Extension Project, traffic flow along Meridian in Puyallup is expected to improve. These improvements will also help to improve flow along Segment 2 and allow the regional trips to shift from Chrisella back to Meridian.

Table 4.3 Intersection Traffic Operation LOS Results for Future AM/PM Peak Hour

Intersection	Traffic Control	2022			2035		
		LOS ¹	Delay ²	WM (V/C) ³	LOS	Delay	WM
Meridian Ave/18th St Ct E	TWSC	B/C	13/23	EB/EB	C/D	20/34	EB/EB
Meridian Ave/20th St E	TWSC (RAB)	D/D	28/30	WBL/WBL	A/A	6/6	WB (0.7)/EB (0.7)
Meridian Ave/22nd St E	TWSC	C/B	20/14	WB /WB	C/C	23/16	WB/WB
Meridian Ave/24th St E	Signalized	C/C	33/29	-	E/D	70/47	-
Meridian Ave/29th St E	TWSC	E/F	46/73	WB/EB	F/F	121/>200	EB/EB
Meridian Ave/32nd St E	TWSC	F/F	70/89	EB and WB/EB	F/F	>200/>200	EB and WB/EB
Meridian Ave/36th St E	Signalized	B/C	11/25	-	E/D	57/40	-
Meridian Ave/102nd Ave E	TWSC	C/D	21/26	NB/NB	E/F	40/84	NB/ NB
Meridian Ave/Dechaux Rd	TWSC	D/B	26/11	WB/WB	F/B	56/13	WB/WB
Meridian Ave/Spencer St	TWSC	F/D	102/31	WBL/WBL	F/F	>200 /71	WBL/WBL

Red values indicate LOS F

1. Level of Service (A – F) as defined by the Highway Capacity Manual 6th Edition (TRB, 2016)

2. Average delay per vehicle in seconds.

3. Worst Movement (WM) reported for TWSC intersections. Volume to Capacity (V/C) ratio shown for worst approach at roundabout intersection.

Future Operational Conditions

Operational conditions at the study intersections along the Meridian corridor were analyzed for the future year (2035) No Build conditions. The analysis of future conditions assumed no improvements to intersections along project segment of Meridian between 24th and the southern City limits. The only change to the roadway included within the No Build scenario was the installation of the roundabout planned at the intersection of Meridian/20th.

The intersection delay and LOS results for 2035 indicated a general deterioration in traffic operations at most intersections, with delays expected to increase due to heightened traffic demand. Consequently, several intersections are anticipated to operate at LOS F during one or both peak hours:

- Meridian/29th – AM and PM peak hours
- Meridian/32nd – AM and PM peak hours
- Meridian/102nd – PM peak hour
- Meridian/Dechaux – AM peak hour
- Meridian/Spencer – AM and PM peak hours

Table 4.3 presents the delay and LOS results for the study intersections along Meridian for the weekday AM and PM peak hours under future (2035) No Build conditions.

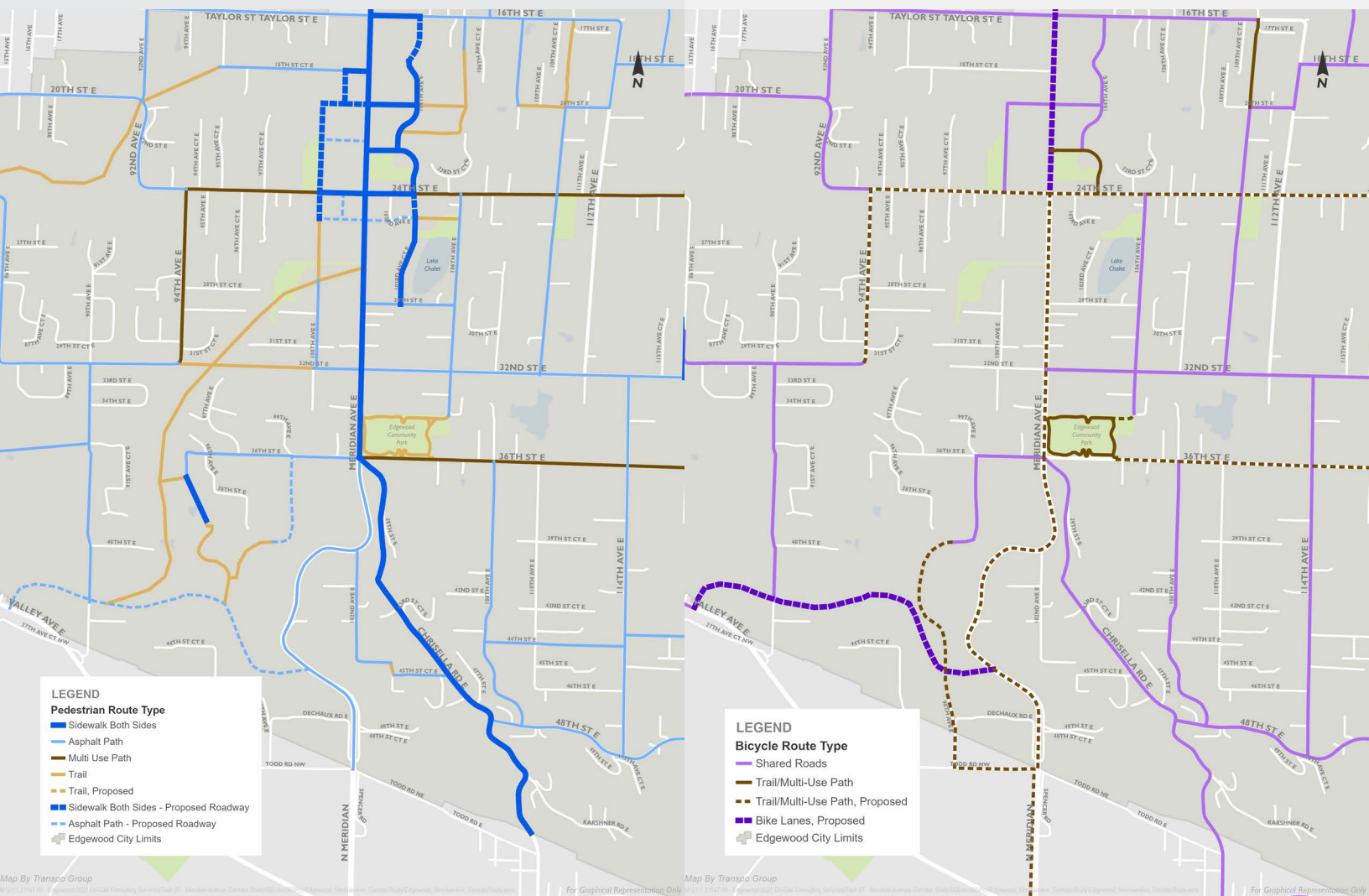
Detailed LOS worksheets for each intersection analysis are included in **Appendix E**.

The results of this analysis were used to inform and develop the proposed improvements for the Meridian corridor. As discussed in Chapter 5, proposed enhancements for intersections forecast to operate at or below LOS E included intersection traffic controls adjustments, multimodal mobility improvements, and access management strategies. These proposed improvements were developed in alignment with the City's 2024 Comprehensive Plan update, aiming to improve safety and overall operations.

Active Transportation Facilities

As part of the evaluation of future conditions within the City, a review of planned improvements to the active transportation network within the City was conducted. Pedestrian and bicycle improvements along Meridian as part of the project would connect to and support the following planned improvements:

Interurban Trail Gap Closure In coordination with neighboring jurisdictions, the City is working to connect existing segments of the Interurban Trail, located approximately 1.5 miles north of the project segment. Once completed, this multi-use facility will



Pedestrian Network

Bicycle Network

Figure 4.1 Draft Edgewood Planned Non-Motorized Transportation System

connect Edgewood directly to the cities of Milton and Pacific, as well as the larger Puget Sound region.

Parallel Road Network The City is improving connectivity by expanding the network of Collector roadways parallel and adjacent to Meridian corridor, with the goal of also expanding pedestrian/bicycle facilities. Key corridors planned for near-term expansion include 104th Street East and 106th Street East, which provides an opportunity to install a non-motorized connection between City Hall and the recently completed Edgewood Community Park.

Intersection/Roadway Improvements Pedestrian and bicycle facility improvements are incorporated into various planned roadway improvement projects including the Meridian/20th roundabout and the

Chrisella Road realignment (which incorporates complete streets improvements along 36th).

Pedestrian Mobility and Safety Improvements

The City continues to advance projects identified in the current Comprehensive Plan which seeks to extend bicycle and pedestrian facilities throughout the City. One key project is the installation of a bicycle/pedestrian connection between 36th and Todd Road, west of Meridian. The construction of this facility will provide a connection between the top and bottom of the hill away from the high travel speeds and volumes along SR 161.

A draft of the City's planned active transportation network is shown in **Figure 4.1**.

5 Alternatives Development, Screening, and Evaluation

Based on the evaluation of existing and future forecast conditions along the roadway, several design alternatives were developed which included the proposed improvements for the corridor. These alternatives were crafted with specific objectives in mind, including mobility, safety, and fostering growth along the corridor. The development of these alternatives involved collaboration with the WSDOT and various stakeholders, with input from engaged community members.

The final design alternatives reflect the insights gathered from the community and stakeholders. This section will delve into the details of each alternative and provide an evaluation of their respective merits.

Alternative Development

The design alternatives evaluated as part of this study were developed using a two-stage process which identified and combined proposed improvements which would address the needs and goals of the project. The first stage of this process, Level 1 screening, identified a toolbox of possible improvements for the corridor which could be implemented to address existing challenges along the roadway. The individual improvements from the Level 1 screening were then evaluated to determine whether these solutions were appropriate for the corridor based on the community context and feedback. Roadway improvements determined to be appropriate for the community were then advanced to the Level 2 alternative screening process. In this stage of the evaluation, improvements advanced from Level 1 screening were combined into conceptual design alternatives for the corridor. These design concepts were then evaluated to determine their success at achieving the project's goals.

Alignment with Roadway Context and Project Goals

Several factors were considered when developing the proposed alternatives for the Meridian project.

The priorities of the community, stakeholders, and other key project partners were central in identifying the improvements for the corridor which would address existing challenges. Improvements for the corridor were selected that would advance transportation-related goals and initiatives outlined in existing planning documents, such as the Town Center Subarea Plan and the City's Comprehensive Plan. Direct input from community members, in the form of comments and responses received through the project survey and community workshops (as discussed in Chapter 2), was also used to identify potential improvements for the corridor. Finally, the project's goals were used as guiding principles to determine which improvements would be successful at achieving the intended project outcomes. As discussed in Chapter 1, the primary project goals included improving the following:

- Safety
- Mobility/Traffic Operations
- Access Management
- Multimodal Mobility
- Transit Access

Table 5.1 Meridian Level 1 Screening – Improvement Toolbox (Segment 1)

Corridor Capacity Improvements	Intersection Treatments	Access Management/ Safety Measures	Transit Improvements	Pedestrian Improvements	Bicycle Improvements
Segment 1					
3-lane cross section (no change)	Install/Modify Signal(s)	Consolidate Driveways	Bus Rapid Transit (BRT)/Business Access Lane (BAL)	Wide Sidewalks	Class IV Buffered Bike Lanes
Unbalanced 3-lane cross section	Install Roundabout(s)	Center Raised Median	In-Lane Bus Stops	Landscape Buffer	Off-Street Shared Use Path
4-lane cross section	Signal Timing/ Phasing Coordination	Two-Way Left-Turn Lane		Median Refuge Island	
5-lane cross section (w/o access management)	Adaptive Traffic Control	Mid-Block U-Turn Locations		Signalized Midblock Crossings	
5-lane cross section (w/access management)		U-Turns at Intersections		Curb Ramp Improvements	
		Minor Street Left-Turn Restrictions			
		Non-Linear (Meandering) Median			
		Chrisella Rd Realignment			
		Lighting Improvements			

Bold=Improvement advanced to the Level 2 alternative screening process

Application of WSDOT Design Manual

The WSDOT Design Manual (DM) provides policies, procedures, and methods for developing and documenting the design of improvements to the transportation network in Washington. Specific chapters of the DM were considered during the design alternatives development process in conjunction with consideration of the goals of the project.

During the Level 1 Screening Process to develop cross sections appropriate for the corridor, the following WSDOT DM chapters were considered:

- Chapter 1106 Design Element Dimensions
- Chapter 1231 Geometric Cross Section: Highways

- Chapter 1239 Geometric Cross Section – Shoulders, Side Slopes, Curbs, and Medians

During the Level 2 Screening Process, the plan views of additional design elements were developed to a concept level, such as intersections and non-motorized facilities. This design development allowed further evaluation of each alternative. As part of this effort, the following additional WSDOT DM chapters were considered:

- Chapter 1310 Intersections
- Chapter 1320 Roundabouts
- Chapter 1330 Traffic Control Signals
- Chapter 1510 Pedestrian Facilities
- Chapter 1515 Shared Use Paths
- Chapter 1520 Roadway Bicycle Facilities

Table 5.2 Meridian Level 1 Screening – Improvement Toolbox (Segment 2)

Corridor Capacity Improvements	Intersection Treatments	Access Management/ Safety Measures	Union Pacific Railroad Crossing Improvements	Pedestrian/Bicycle Improvements
Segment 2				
2-lane cross section along entire segment (lane removal)	Install Signal(s)	Chrisella Rd Realignment	Maintain Existing Crossing (2-lane bridge)	Add Shoulders
2-lane/3-lane cross section (no change)	Install Roundabout(s)	Dechaux Rd Intersection Realignment	Construct Pedestrian/Bicycle Bridge	Off-Street Shared-Use Path
2-lane/3-lane cross section (2 SB lanes, 1 NB lane)		Full-Access Left Turns to/from Minor Streets	Construct New 2-Lane Bridge	Alternate Off-Street Non-Motorized Routes
3-lane cross section along entire segment		Right In/Right Out at Minor Streets		Curb Ramp Improvements
4-lane cross section along entire segment		Left-Turn Acceleration/Deceleration Lane		

Bold=Improvement advanced to the Level 2 alternative screening process

Level 1 Screening Process

The first step in developing the project design alternatives was to compile a toolbox of potential roadway improvements for the corridor. The list of improvements ranged from expansions in vehicular capacity, to changes in intersection control treatment. Expansion and installation of various transit, bicycle, and pedestrian facilities were also considered as part of this list. The compiled improvements reflected input received from community members, stakeholder groups, and local representatives. The full list of potential elements considered for implementation along Meridian are presented in **Tables 5.1 and 5.2**, for Segments 1 and 2, respectively. These improvements were then reviewed for their alignment with the roadway context and goals of the project. Based on this review, the improvements in bold in **Tables 5.1 and 5.2** were advanced to the Level 2 alternative screening process. The detailed evaluation of improvements as part of the Level 1 screening process is provided in **Appendix E**.

As part of the Level 1 screening process, several roadway cross-sections and improvements were evaluated for Segments 1 and 2 to determine the configurations that would be feasible for the corridor and align with the project goals. Key

roadway improvements which were not advanced to the Level 2 screening process are identified below with an explanation detailing the reasoning why these configurations were not advanced.

Segment 1 Cross-Sections

As indicated in **Table 5.1**, an option for Segment 1 was to maintain the existing 3-lane cross-section, providing one travel lane in each direction with a center two-way left-turn lane. However, previous corridor studies, including the Route Development Plan for State Route 161 prepared by WSDOT in January 1997, identified the roadway for widening to a five-lane cross-section between 24th and 36th (Segment 1). The widening of Meridian north of 24th, implemented by WSDOT in 2012, was originally intended to extend the five-lane cross-section south to 36th. However, due to cost increases and budget constraints, the scope of the project was reduced to end the five-lane cross-section at 24th. Thus, the existing 3-lane cross section is inconsistent with previous work along the corridor.

It should also be noted that, along Segment 1, the northbound approach at 24th and the southbound approach at 36th have already been widened to provide a 4- or 5-lane cross-section. Thus, widening Segment 1 of the

Table 5.3 Segment 1 Single-vs-Multi-Lane Roundabout Configurations Evaluation

Intersection	Approach	Total Approach Volume	2025 Conditions: PM Peak Hour							
			Single-Lane Roundabout				Multi-Lane Roundabout			
			LOS	V/C	Delay(s)	Queue (ft)	LOS	V/C	Delay(s)	Queue (ft)
Meridian/29th	NB	836	A	0.719	4.6	255	A	0.355	4.3	47
	SB	1,281	F	1.077	45.8	5,881	A	0.535	4.3	96
Meridian/32nd	NB	771	A	0.720	5.5	221	A	0.350	4.7	49
	SB	1,261	F	1.107	58.2	3,051	A	0.544	4.6	104

roadway would implement a consistent cross-section along the approximately 3,500-foot segment between these two intersections.

Additionally, single-lane vs. multi-lane roundabout configurations were evaluated at several intersections along Segment 1 to determine the configuration that would accommodate forecast travel demands. **Table 5.3** summarizes the results of this analysis. As shown, single-lane roundabouts were shown to experience high delay and queuing in the southbound direction during the PM peak hour.

During the AM peak hour, directional flow patterns reverse along Meridian, with the northbound direction experiencing peak hour flows above 1,000 vehicles per hour. Therefore, it is expected that the southbound queuing and delay issues experienced at the single-lane roundabouts in the PM peak hour, would be experienced in the northbound direction during the AM peak hour. Additionally, when accounting for anticipated traffic growth along the corridor, it is expected that the roadway will carry directional volumes above 1,000 vehicles not only during the peak hour, but throughout the entire peak periods. Thus, the queuing and delay concerns identified in **Table 5.3** would be anticipated for multiple hours throughout the day with the single-lane roundabout configuration.

Further, unlike the segment to the north between 8th and 24th, the segment of the Meridian between 24th and 36th does not have a planned parallel connection as part of the Parallel Road Network. Therefore, traffic to and from planned developments along the roadway will be required to utilize Meridian as the primary access route. Thus, the second travel lane in the northbound and southbound directions will also be used

to accommodate local access to and from anticipated development along the corridor.

Finally, the addition of a second travel lane in both the northbound and southbound direction along Segment 1 will accommodate potential managed lane configurations along the roadway in the future, including the Business Access and Transit (BAT) lane concept identified in the WSDOT SR 167 Master Plan. While this improvement would require that land use densities and transit ridership and headways are supportive of such facilities, the four/five-lane cross sections would provide flexibility in the future to introduce these transit improvements.

For these reasons, the existing 3-lane cross section was not evaluated further as part of the alternatives analysis.

Segment 2 Cross-Sections

As indicated in **Table 5.2**, options considered for Segment 2 included the removal of a northbound travel lane, so that the entire segment south of 36th would provide only one northbound lane. Similar to Segment 1, lane assignments for Segment 2 were determined based on an evaluation of traffic volume forecasts for the roadway. It was determined that future southbound volumes along Meridian, south of 36th, could be accommodated by a single travel lane. Proposed improvements to the SR 167 interchange with Meridian are expected to improve flow along the entire Meridian corridor and address some existing congestion issues.

While northbound volumes during the peak hour are generally consistent with peak southbound volumes (and may be accommodated by a single lane), the provision of an additional northbound travel lane along Segment 2 was determined to

be necessary to accommodate heavy vehicle traffic traveling uphill in the northbound direction. This additional lane would serve as a truck climbing lane. This segment of the roadway has an approximately 4,500-foot uphill slope with a 6% grade. Approximately 12% of northbound volumes along this segment of the roadway are accounted for by single-unit trucks or larger (FHWA Vehicle Class 5 or greater). Per Chapter 1220 of the WSDOT Design Manual, a 6% uphill grade longer than 700 feet should consider a climbing lane.

To provide the necessary truck climbing lane, two northbound travel lanes were deemed to be necessary for Segment 2 and potential cross-section options removing one of the northbound travel lanes were not further evaluated further as part of the alternatives analysis.

Business Access and Transit (BAT) Lanes

The ultimate vision for the corridor is to install Business Access and Transit (BAT) lanes along the roadway, as identified within WSDOT's SR 167 Master Plan. These improvements would greatly improve future transit travel time and reliability through the City of Edgewood and would make transit a more attractive mode of travel for residents within the City. However, Pierce Transit's current plans and funding allocation do not plan for bus service and headways which would support the installation of these lanes. Research has indicated that exclusive BAT lanes typically are for corridors that serve 10 or more buses an hour, or 15 minute service or greater. Therefore, the BAT lanes are not included as part of the recommended improvements within the corridor study. Instead, in-line transit stops are proposed which will reduce transit delay by eliminating the need for transit buses to merge into and out of

the travel lane. These improvements will serve as an interim improvement until more frequent transit service is provided along Meridian that will support the installation of the BAT lanes.

Level 2 Screening Process

The highlighted improvements from **Tables 5.1 and 5.2** were advanced into the Level 2 screening process and were incorporated into design concepts for Meridian. The final design alternatives embody insights gathered from the community and stakeholders. It is noteworthy that initially, two design alternatives were considered for Meridian and were presented to the community and stakeholders. Based on input received during the public outreach workshops and project stakeholder working groups, a third alternative was developed for the corridor. Across the three corridor design alternatives, the selected Level 1 improvements were incorporated and evaluated as part of the Level 2 screening process.

As part of the Level 2 screening process, the three design alternatives were ranked and compared against one another based on a series of evaluation criteria developed according to the project goals. The evaluation criteria were selected based on the project's specific aims. For each criterion, corresponding performance metrics were identified which could be used to determine the effectiveness of each alternative at achieving the associated goal (with some metrics drawn from WSDOT, when applicable). The alternative screening process involves both quantitative and qualitative performance metrics, covering four distinct categories: Mobility and Safety, Land Use, Community Involvement and Benefits, and Impact on Natural Environments.

Table 5.4 Meridian Level 2 Alternative Screening – Evaluation Criteria

Safety	Mobility	Land Use	Community Involvement/ Community Benefit	Natural Environment
Roadway (vehicle) Safety	Intersection Operations	Town Center Development	Community Support/ Acceptance (survey results)	Impacts on Natural Environment
Pedestrian Comfort/Safety	Accessibility (ADA Facilities, Crossings, etc.)	Effective Parallel Corridors	Regional Mobility/ Continuity/Resiliency	Stormwater Management
Bicycle Comfort/Safety	Effective Transit	Local Business Access/Integration	Constructability/ Extendibility	
		Corridor Aesthetics	Funding Availability/ Grant Applicability	

The three design alternatives were scored using a “Consumer Reports” scoring scale, in which each of the three alternatives was assigned a “No Benefit”, “Some Benefit” or “High Benefit” score based on its alignment with each of the evaluation criteria. This comparative approach helps identify the most suitable design that aligns with the network’s needs. The evaluation criteria for the Level 2 alternative screening process are shown in **Table 5.4**.

Based on the level of benefit provided, a score was assigned to each alternative for the 16 evaluation criteria. Prior to summing the scores for each alternative, weighting factors were assigned to the evaluation criteria to give greater influence to those criteria identified as being more important based on community feedback and City priorities.

In line with WSDOT and State legislature policies, the roadway safety criterion was assigned the highest weighting factor (3.0) to prioritize the creation of a safe roadway environment for all users. Those criteria which were rated as the highest community priorities were assigned the next highest weighting factor (2.0). Finally, criteria aligning with City priorities (and not

previously assigned a higher weighting factor) were given a weighting factor of 1.5.

Note that the results of the community survey demonstrated competing priorities of improving vehicular capacity while also expanding multimodal access. To address these competing views, a higher weighting factor was given to the evaluation criterion related to vehicular operations but more evaluation criteria were included which related to multimodal access (Pedestrian Comfort/Safety, Bicycle Comfort/Safety, Accessibility, Town Center Development, Regional Mobility/Continuity/Resiliency). Evaluation criteria identified as primary project priorities and the criterion relating to community input were given the highest weighting factors.

These weighting factors were then applied to the scores assigned for each evaluation criteria and were summed to determine an overall score for each alternative. This process was conducted separately for Segments 1 and 2 due to the differing design concepts for the two corridor segments and differing levels of applicability of the evaluation criteria to the two segments.

Table 5.5 Meridian Design Alternatives Summary

Alternative Design	Key Alternative Improvements	
	Segment 1	Segment 2
Option A	Configuration: 5-lane roadway with 2 NB and 2 SB lanes, with a center TWLT lane Intersection Control: Install/modify signals at 24th, 32nd and 36th Bicycle Facilities: On-street 5-foot bike lanes with 2-foot buffer in both directions Pedestrian Facilities: 10-foot sidewalks with 5'x5' tree pits on both sides of the roadway Crosswalks: Mid-block crossings with refuge island and control strategies (RRFB, HAWK signal) north of 29th and north of 36th Access Management: Full left-turn access provided at all driveways and minor streets Transit: In-line transit stops	Configuration: 3-lane roadway with 2 NB and 1 SB lane (same as existing) Intersection Control: Potential signalization of Dechaux Dechaux Rd: Realign intersection to improve sight distance Non-motorized Facilities: Wide multi-use path along east side of roadway for non-motorized traffic Access Management: maintain full access at 102nd (same as existing) UPRR Bridge: Maintain existing 2-lane bridge and construct a new bridge for a non-motorized path east of the existing bridge
Option B	Configuration: 5-lane roadway with 2 NB and 2 SB lanes, with a center raised median Intersection Control: Install/modify signals at 24th, 32nd and 36th with widening provided to accommodate north-south U-turn movements Bicycle Facilities: 11-foot off-street shared use path with 5-foot landscaping buffer Pedestrian Facilities: same as Bicycle Facilities Crosswalks: Mid-block crossing with refuge island and control strategies (RRFB, HAWK signal) at 29th and north of 36th Access Management: Right-in, right-out access to driveways and minor streets Transit: In-line transit stops	Configuration: 4-lane roadway with 2 SB and 2 NB lanes with 4-foot shoulders on both sides of the roadway Intersection Control: Potential signalization of Dechaux with widening for southbound U-turns Dechaux Rd: Realign intersection to improve sight distance Non-motorized Facility: 6-foot sidewalk north of 102nd Access Management: right-in, right-out access at 102nd UPRR Bridge: Maintain existing 2-lane bridge for NB traffic and construct a new 2-lane bridge for SB traffic
Option C	Configuration: 4-lane roadway with 2 NB and 2 SB lanes, raised median from south of 24th to north of 36th Intersection Control: Modify signal at 24th, widen to accommodate northbound U-turn; Install roundabouts at 32nd and 36th Bicycle Facilities: On-street 5-foot bike lanes with 2-foot buffer in both directions Pedestrian Facilities: 10-foot sidewalks with 5'x5' tree pits on both sides of the roadway Crosswalks: mid-block crossings with refuge island and control strategies (RRFB, HAWK signal) north of 29th and north of 36th Access Management: right-in, right-out access to driveways and minor streets Transit: In-line transit stops	Configuration: 4-lane roadway with 2 SB and 2 NB lanes with 4-foot shoulders on both sides of the roadway Intersection Control: Potential roundabout at Dechaux Dechaux Rd: Realign intersection to improve sight distance Non-motorized Facilities: Wide multi-use path along east side of roadway for non-motorized traffic Access Management: Provide left-turn acceleration/deceleration lane at 102nd UPRR Bridge: Maintain existing 2-lane bridge for NB traffic, construct a new 2-lane bridge for SB traffic, and construct a new bridge for a non-motorized path

Design Alternatives

Table 5.5 presents and compares the design features of the three proposed alternatives for Segments 1 and 2. These alternatives vary in terms of non-motorized layout, lane capacity, intersection control, and channelization. All three design alternatives include pedestrian

and bicycle improvements along the corridor, including midblock crossing locations along Segment 1. Crosswalk enhancements such as Rectangular Rapid Flashing Beacons (RRFBs) or High-Intensity Activated Crosswalk (HAWK) Beacons, are being selected for these locations in accordance with the WSDOT Active Transportation Programs Design Guide and the Manual on Uniform Traffic Control Devices (MUTCD).

Representative midblock cross sections for each alternative for Segments 1 and 2 are shown in **Figures 5.1 and 5.2**, respectively. These design sketches depict the arrangement of the roadway lane assignments and non-motorized transportation facility layouts. Importantly, these designs align with the City's plans for the proposed non-motorized transportation network, as discussed in Chapter 4. Detailed design plans for the three design alternatives for Segments 1 and 2 are provided in **Appendix F**. The planning level cost estimates for the three project alternatives are also presented in **Appendix F**.

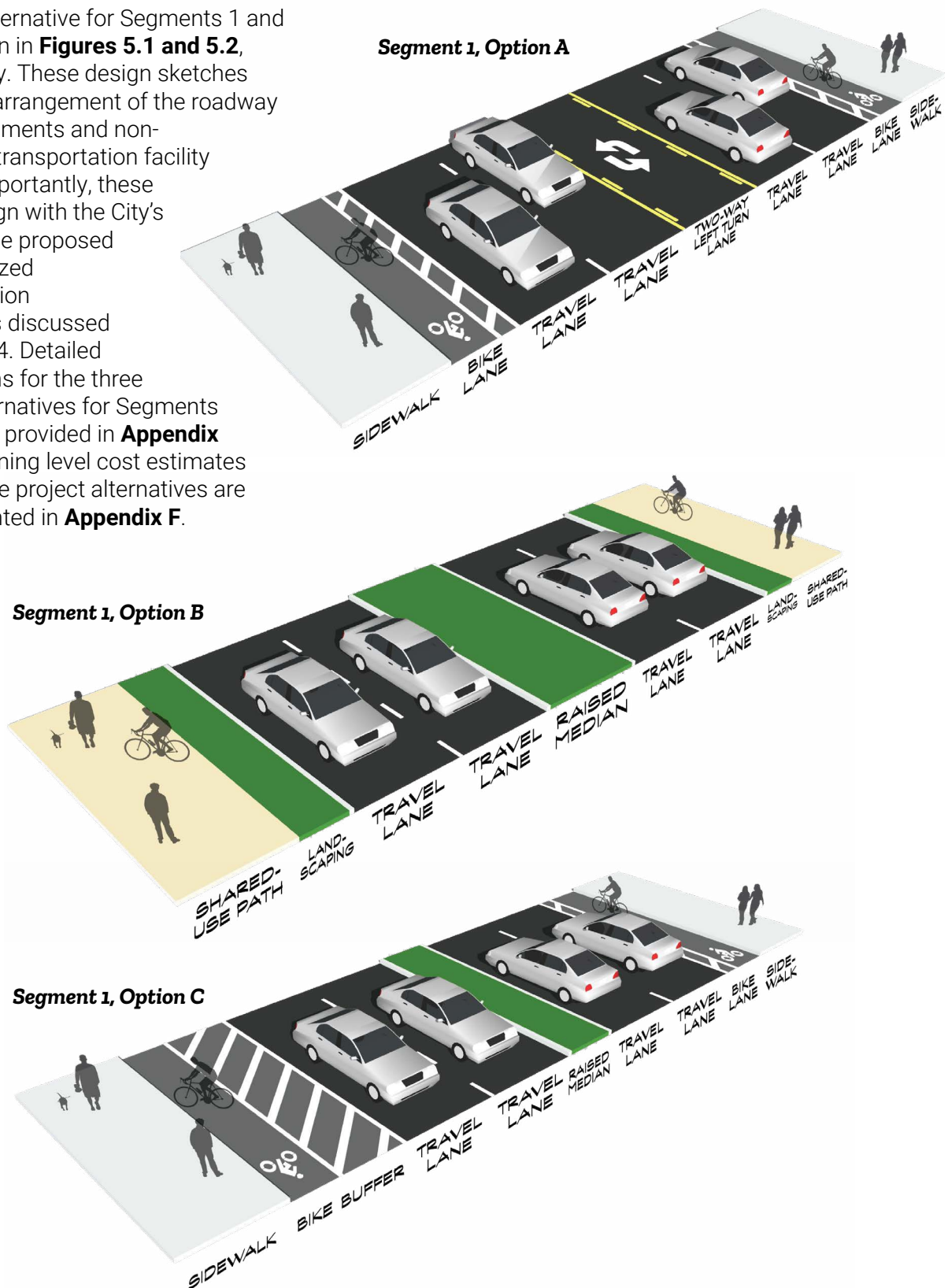
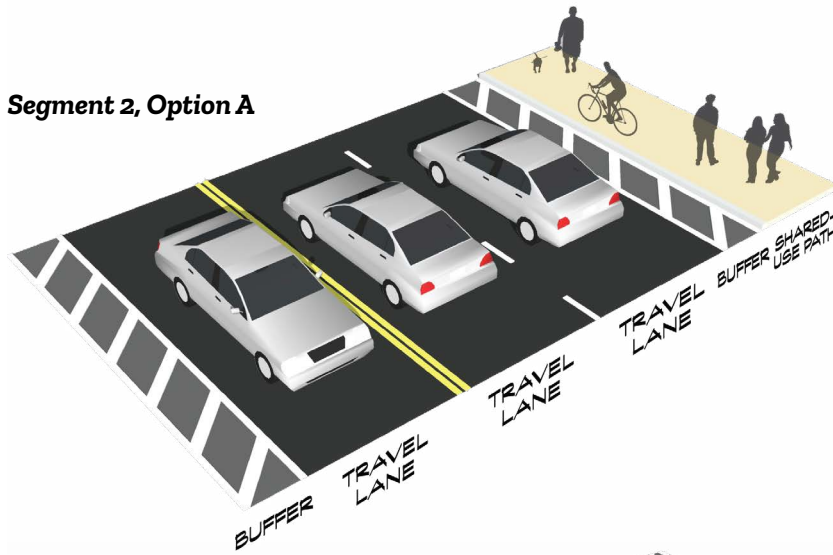
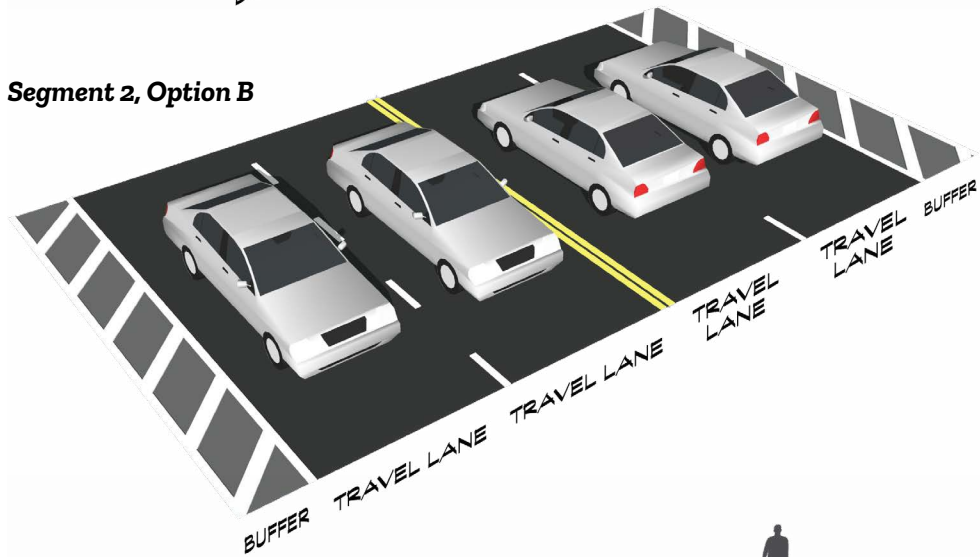


Figure 5.1 Meridian Design Alternative Cross-Sections – Segment 1

Segment 2, Option A



Segment 2, Option B



Segment 2, Option C

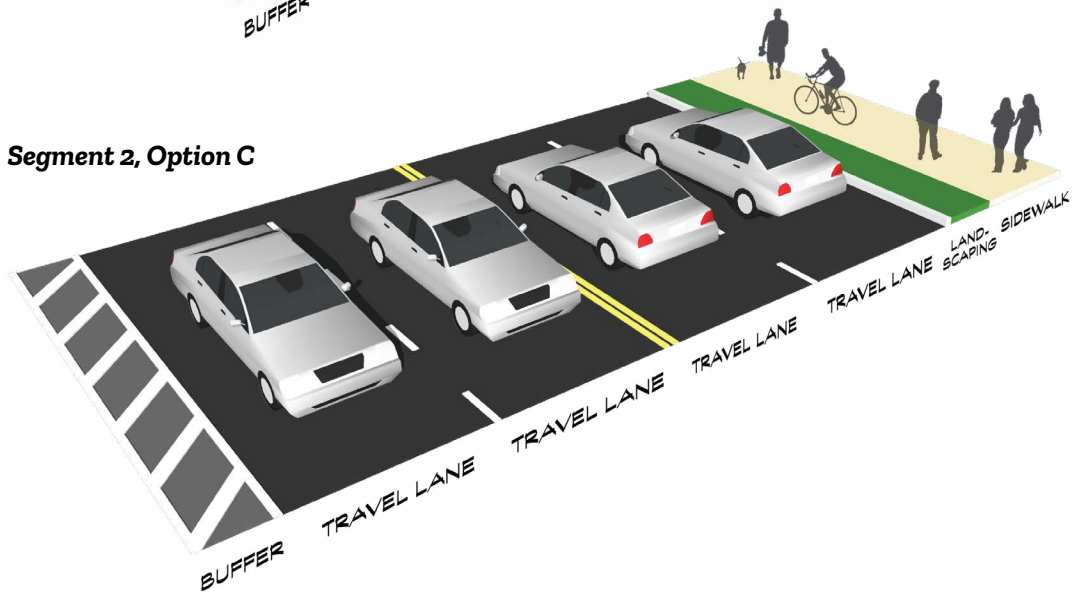


Figure 5.2. Meridian Design Alternative Cross-Sections – Segment 2

Alternative Evaluation

Tables 5.6 and 5.7 present the scoring results of the Level 2 alternatives analysis for Segments 1 and 2, respectively. A summary of the scoring evaluation for each merit criteria is provided here. Tables summarizing the evaluation criteria, performance metrics, and evaluation metrics for each of the three alternatives for Segments 1 and 2 are provided in **Appendix E**.

Roadway (vehicle) Safety. For Segment 1, Alternatives B and C scored highest for the vehicular safety criterion as both are expected to achieve over a 25 percent reduction in collisions along the corridor. For Segment 2, Alternative B scored the highest as it was the only alternative expected to reduce collision by over 25 percent.

Pedestrian Comfort/Safety. Alternative C scored highest for both Segments 1 and 2 in relation to pedestrian comfort as the roadway improvements would add pedestrian facilities and slow speeds due to the installation of roundabouts.

Bicycle Comfort/Safety. For the bicycle safety criterion, Alternative C scored highest for both Segments 1 and 2 due to the installation of bicycle facilities and roundabouts, which would be expected to slow speeds along the roadway.

Intersection Operations. Along both Segments 1 and 2, Alternative B scored the highest for this criterion as it reduced the overall LOS to E or better at all intersections and maintained the current 35 mph travel speed along the roadway.

Accessibility. Alternative C scored highest for pedestrian accessibility along Segment 1 as the alternative would provide the shortest pedestrian crossing distances at both midblock and intersection crossings. Along Segment 2, Alternatives A and C scored highest as these alternatives would install an ADA accessible facility along the entire route.

Effective Transit. For Segment 1, Alternatives A and B scored higher than Alternative C (though only with a “Some Benefit” score) as the alternatives would not slow transit travel times along the corridor with the omission of roundabouts. Along Segment 2, Alternative B scored higher than the other alternatives because of the additional southbound lane reducing congestion and travel time.

Town Center Development. Alternative C was deemed to provide the most benefit in supporting the development of the Town Center subarea along Segment 1 as the concept provided the shortest distances between marked crossing locations and would slow speeds along the roadway (due to the roundabouts). This criterion was determined to not be applicable to Segment 2.

Effective Parallel Corridors. Along Segment 1, Alternative A was identified as providing the most benefit towards advancing the City’s parallel roadway initiative, as it maintains full access for turning movements at key intersections, including 29th, 32nd, and 36th. This criterion was determined to not be applicable to Segment 2.

Local Business Access/Integration. For Segment 1, Alternative A scored the highest for this criterion as it would allow full access turning movements to driveways and minor streets. For Segment 2, Alternatives A and B scored highest as these design concepts would allow for left-turn movements to and from 102nd.

Corridor Aesthetics. Alternatives B and C scored the highest for Segment 1 as these design alternatives provide the greatest opportunities for corridor beautification along the roadside and in the center median. Similarly, Alternatives A and C scored highest for Segment 2 with landscaping and lighting opportunities adjacent to the multi-use pathway.

Community Support/Acceptance. Along both Segments 1 and 2, Alternative B received the highest level of community support and was assigned the highest score.

Regional Mobility/Continuity/Resiliency. For Segment 1, Alternative B scored the highest in relation to regional mobility goals as multimodal facilities are provided along the entire segment with no improvements which would interfere with the continuity of these facilities. Alternatives A and C scored highest for this criterion for Segment 2 as they both expand active transportation facilities along the entire segment.

Constructability/Extendibility. Alternative A scored the highest for this criterion for both Segments 1 and 2 as it would require the lowest ongoing maintenance costs along the northern segment and the lowest capital improvement costs along the southern segment.

Funding Availability/Grant Applicability. For the grant alignment criterion, Alternatives B and C scored highest for Segment 1 as both align with three grant priority areas. Similarly for Segment 2, Alternative C scored highest as it aligns with three priority areas.

Impacts on Natural Environment. Alternatives A and C scored highest for the natural environment impact criterion along Segment 1 as they require minimal right-of-way (ROW) intrusion to adjacent properties. For Segment 2, Alternative A scored highest as it would require the least amount of roadway expansion into adjacent slopes.

Stormwater Management. For Segment 1, Alternatives B and C were assigned the highest scores as they would install pervious roadway surface area along the center median. For Segment 2, Alternative A scored the highest as this alternative primarily introduces only non-pollution generating impervious surfaces (NPGIS) along the roadway associated with the pedestrian/bicycle path.

Overall, Alternative C received the highest weighted score along Segment 1. For Segment 2, Alternative A received the highest weighted score. These two alternatives were used as the basis for determining the final recommendations for the corridor, as discussed in Chapter 6.

Table 5.6 Meridian Level 2 Alternative Screening – Scoring Results (Segment 1)

Project Goals	Evaluation Criteria	Weighting Factor	Alt A	Alt B	Alt C
Segment 1					
Safety	Roadway (Vehicle) Safety. To what degree would the alternative reduce collisions along the corridor?	3.0			
	Pedestrian Comfort/Safety. How well does the alternative improve the comfort and safety of pedestrian facilities along the corridor?	1.0			
	Bicycle Comfort/Safety. How well does the alternative improve the comfort and safety of bicycle facilities along the corridor?	1.0			
Mobility	Intersection Operations. How effective is the alternative in reducing vehicular delay at intersections and/or along the corridor?	2.0			
	Accessibility (ADA Facilities, Crossings, etc.). To what degree does the alternative improve accessibility of the facilities along the corridor?	1.5			
	Effective Transit. How well does the alternative reduce delay experienced by transit vehicles?	1.0			
Land Use	Town Center Development. To what degree does the alternative support development in line with the City's Town Center Subarea Plan?	1.0			
	Effective Parallel Corridors. How effective is the alternative at advancing the connectivity goals as part of the Parallel Road Network?	1.0			
	Local Business Access/Integration. How well does the alternative provide convenient and safe access to businesses and residences along the corridor?	2.0			
	Corridor Aesthetics. How extensive are the alternative's potential corridor beautification opportunities through landscaping and/or lighting?	1.0			
Community Involvement/Benefit	Community Support/Acceptance. What is the level of support for the alternative within the community?	2.0			
	Regional Mobility/Continuity/Resiliency. How well does the alternative align with stakeholder "complete streets" and multimodal priorities?	1.0			
	Constructability/Extendibility. How do the capital and maintenance costs for this alternative compare to the others?	1.5			
	Funding Availability/Grant Applicability. How well does the alternative align with grant funding priorities?	1.0			
Natural Environment	Minimal Environmental Impact. What is the impact of the alternative on steep slopes and properties adjacent to the corridor? (low impact = high benefit)	1.5			
	Stormwater Management. To what extent does the alternative increase pollution, generating impervious surfaces (PGIS) along the corridor?	1.0			
Total (Raw Score)			19.0	22.0	24.0
Total (Weighted Score)			25.5	32.0	33.5

LEGEND

-  High benefit
-  Some benefit
-  Low benefit

Table 5.7 Meridian Level 2 Alternative Screening – Scoring Results (Segment 2)

Project Goals	Evaluation Criteria	Weighting Factor	Alt A	Alt B	Alt C
Segment 2					
Safety	Roadway (Vehicle) Safety. To what degree would the alternative reduce collisions along the corridor?	3.0			
	Pedestrian Comfort/Safety. How well does the alternative improve the comfort and safety of pedestrian facilities along the corridor?	1.0			
	Bicycle Comfort/Safety. How well does the alternative improve the comfort and safety of bicycle facilities along the corridor?	1.0			
Mobility	Intersection Operations. How effective is the alternative in reducing vehicular delay at intersections and/or along the corridor?	2.0			
	Accessibility (ADA Facilities, Crossings, etc.). To what degree does the alternative improve accessibility of the facilities along the corridor?	1.5			
	Effective Transit. How well does the alternative reduce delay experienced by transit vehicles?	1.0			
Land Use	Town Center Development. To what degree does the alternative support development in line with the City's Town Center Subarea Plan?	1.0	N/A	N/A	N/A
	Effective Parallel Corridors. How effective is the alternative at advancing the connectivity goals as part of the Parallel Road Network?	1.0	N/A	N/A	N/A
	Local Business Access/Integration. How well does the alternative provide convenient and safe access to businesses and residences along the corridor?	2.0			
	Corridor Aesthetics. How extensive are the alternative's potential corridor beautification opportunities through landscaping and/or lighting?	1.0			
Community Involvement/Benefit	Community Support/Acceptance. What is the level of support for the alternative within the community?	2.0			
	Regional Mobility/Continuity/Resiliency. How well does the alternative align with stakeholder "complete streets" and multimodal priorities?	1.0			
	Constructability/Extendibility. How do the capital and maintenance costs for this alternative compare to the others?	1.5			
	Funding Availability/Grant Applicability. How well does the alternative align with grant funding priorities?	1.0			
Natural Environment	Minimal Environmental Impact. What is the impact of the alternative on steep slopes and properties adjacent to the corridor? (low impact = high benefit)	1.5			
	Stormwater Management. To what extent does the alternative increase pollution, generating impervious surfaces (PGIS) along the corridor?	1.0			
Total (Raw Score)			19.0	13.0	18.0
Total (Weighted Score)			27.0	23.0	25.0

6 Final Recommendations and Next Steps

The final recommendations for the Meridian corridor were developed based on the Level 2 alternatives screening results and the feedback gathered from community members and project stakeholders. Using the same evaluation criteria and performance metrics, the final recommended improvements were assessed for alignment with the project goals and objectives. This section presents the selected improvements for the corridor and outlines the results of this evaluation.

This section also identifies the next steps for realizing the proposed vision for Meridian. A phasing timeline for implementation of the various corridor improvements is identified to determine how individual components can be advanced in stages, without securing funding for the full list of improvements. Additionally, planning-level cost estimates for the proposed facilities are presented to provide the City with the information necessary to pursue grant funding for the improvements. As part of this chapter, funding sources and grant opportunities are identified which can be explored as a means for funding the improvements for the corridor.

Table 6.1 Meridian Avenue Final Recommendations

Recommendation	Segment 1	Segment 2
Lane Configuration	Widen to provide a 4-lane facility between 24th St and 36th St	Extend the 3-lane facility south to Spencer St (2 NB lanes and 1 SB lane)
Pedestrian/Bicycle Facilities	Install an off-street multi-use path along both sides of the roadway	Install an off-street multi-use path along the east side of the roadway
Midblock Crossings	Install signalized mid-block crossings at 29th St and north of 36th St	N/A
Intersection Control	Install roundabouts at 32nd St and 36th St	Realign the Dechaux Rd intersection (intersection control type to be determined when roadway alignment is finalized)
Access Management	Install non-linear (meandering) median between intersections	Install a southbound acceleration/deceleration left-turn lane at 102nd St
Transit Facilities	Install in-line transit stops	Coordinate with Pierce Transit to discuss feasibility of NB bus stop installation at 102nd
UPRR Bridge	N/A	Maintain existing 2-lane bridge for NB traffic Construct new 2-lane bridge for SB traffic (allows for potential future widening of roadway and replacement of existing bridge) Construct new pedestrian/bicycle bridge

Final Recommendations

Using the results of the Level 2 alternative screening discussed in Chapter 5, the final recommendations for the project corridor were refined and finalized. The highest scoring alternatives from the Level 2 screening assessment were used as the foundation for developing the final recommendations for the corridor. These alternatives were then refined with elements from the other corridor alternatives to develop a final concept which

fully addressed the goals of the project and the feedback gathered from the community.

A conceptual design plan for the final proposed improvements along Meridian Avenue for Segments 1 and 2 is presented in **Appendix G**, along with the planning level cost estimates. The individual corridor projects are summarized in **Table 6.1**.

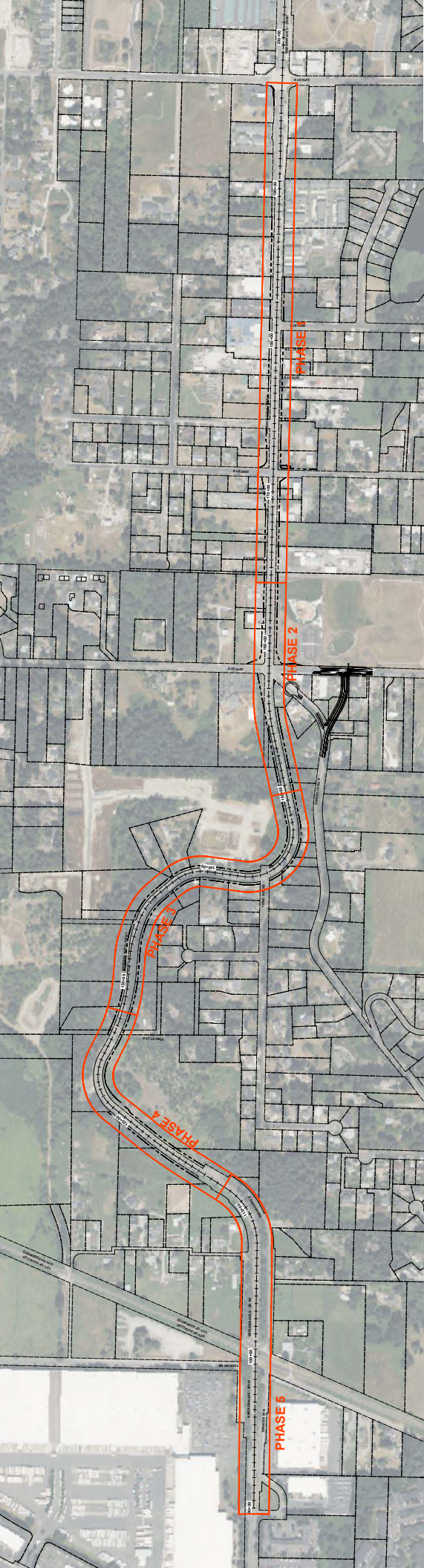
Table 6.2 Meridian Final Recommendation Evaluation – Segment 1

Project Goals	Evaluation Criteria	Alt A	Alt B	Alt C	Final Rec.
Segment 1					
Safety	Roadway (Vehicle) Safety				
	Pedestrian Comfort/Safety				
	Bicycle Comfort/Safety				
Mobility	Intersection Operations				
	Accessibility (ADA Facilities, Crossings, etc.)				
	Effective Transit				
Land Use	Town Center Development				
	Effective Parallel Corridors				
	Local Business Access/Integration				
	Corridor Aesthetics				
Community Involvement/ Benefit	Community Support/Acceptance				
	Regional Mobility/Continuity/Resiliency				
	Constructability/Extendibility				
	Funding Availability/Grant Applicability				
Natural Environment	Minimal Environmental Impact				
	Stormwater Management				
Total (Raw Score)		19.0	22.0	24.0	26.0
Total (Weighted Score)		25.5	32.0	33.5	36.5

The final recommendations were then scored using the evaluation criteria applied within the Level 2 screening process. The scoring results for the final recommendations, in comparison to the three alternative concepts, are shown in **Tables 6.2 and 6.3** for Segments 1 and 2, respectively. As shown, the final recommendations have a higher raw and weighted score compared to the three alternative concepts.

Table 6.3 Meridian Final Recommendation Evaluation – Segment 2

Project Goals	Evaluation Criteria	Alt A	Alt B	Alt C	Final Rec.
Segment 2					
Safety	Roadway (Vehicle) Safety				
	Pedestrian Comfort/Safety				
	Bicycle Comfort/Safety				
Mobility	Intersection Operations				
	Accessibility (ADA Facilities, Crossings, etc.)				
	Effective Transit				
Land Use	Local Business Access/Integration				
	Corridor Aesthetics				
Community Involvement/ Benefit	Community Support/Acceptance				
	Regional Mobility/Continuity/Resiliency				
	Constructability/Extendibility				
	Funding Availability/Grant Applicability				
Natural Environment	Minimal Environmental Impact				
	Stormwater Management				
Total (Raw Score)		19.0	13.0	18.0	21.0
Total (Weighted Score)		27.0	23.0	25.0	29.5



Project Phasing and Cost

To assist the City with implementing the proposed recommendations for the Meridian corridor, a phasing plan was developed for the project improvements. As part of this plan, the corridor was divided into five sections, as shown in Figure 6.1, with each section containing at least one “major” improvement (e.g., roundabout and/or bridge). The division of the corridor in this manner allows for the proposed Meridian improvements to be separated into smaller sets of improvements which can be constructed as funding becomes available. The separation of the corridor into phases does not preclude the City from implementing two or more phases concurrently, should available construction funds allow.

Individual planning-level cost estimates were prepared for each of the five project phases. These cost estimates will allow the City to pursue funding for individual project phases or for larger portions of the corridor (by combining more than one phase).

The project phasing and cost estimate information for the final Meridian recommendations are presented in **Table 6.4**.

Figure 6.1 SR 161 Corridor Improvements Construction Phasing

Table 6.4 Meridian Project Phasing and Cost Estimates

Construction Phase	Project Segment	Length		Station		Key Features			Plan Sheets	Est. Project Cost
		Miles	Feet	Begin	End	South	Middle	North		
1	1	.63	3,300	197+00	164+00	Horiz. Curve to RAB	32nd Roundabout	29th Intersection	7-10	\$18.1m
2	1 & 2	.27	1,400	164+00	150+00	Tangent to Roundabout	36th Roundabout	Horiz. Curve	6-7	\$11.1m
3	2	.45	2,400	150+00	126+00	Alignment to Intersection	102nd Ave Intersection	102nd Ave Intersection	4-6	\$19.3m
4	2	.27	1,400	126+00	112+00	Tangent to Roundabout	Dechaux Roundabout	Horiz. Curve to Tangent	3-4	\$12.2m
5	2	.49	2,600	112+00	86+00	Spencer Roundabout	UPRR Bridges (2 new)	Horiz. Curve to Tangent	1-3	\$63.9m
Total		2.11	11,100							\$124.7m

Implementation Strategies

Implementing the project recommendations for the Meridian corridor will be a multi-year effort, coordinating and prioritizing projects among the City's other transportation needs, leveraging development where feasible, and identifying grant funding and other partnerships. This section identifies the transportation grant funding programs which can be explored to acquire funding for the identified roadway improvements. The individual project components are matched with the funding programs for which they would be most competitive.

Table 6.5 Grant Funding Opportunities

Funding Agency	Grant Program	Project Elements	Funding Cycle	Application Deadline
PSRC	FHWA Funds	• Additional travel lanes • Bike/ped multi-use path • Roundabouts • Non-linear raised median	Every 2 years	Spring 2024
	TAP	• Bike/ped multi-use path • Mid-block crossings	Every 2 years	Summer 2025
WSDOT	HSIP	• Non-linear raised median • Roundabouts • Left-turn acceleration/ deceleration lane	Every 2 years	Winter 2026
	Ped & Bike Program	• Bike/ped multi-use path • Mid-block crossings	Every 2 years	Spring 2024
USDOT	RAISE	All elements	Every year	January 2025

In addition, it is worth noting that the projects identified in this study should be incorporated into the City’s Capital Improvement Plan and the 2024 Comprehensive Plan update, which is underway. Inclusion of the Meridian improvements in the City’s planning documents will allow them to be included within the transportation impact fee program, which can be used to partially fund the implementation of the projects. Funds from the impact fee program can be used to advance design on higher-cost, long-term projects to make them more attractive for local, state, and federal grant programs.

Grant Funding Programs

The below transportation grant funding programs provide an opportunity to acquire funding for the recommended improvements along the Meridian corridor. A brief description of each funding opportunity, its key priorities, and the applicable project components are provided below. **Table 6.5** summarizes the grant programs and their funding cycles and applicability to the project improvements.

Puget Sound Regional Council

The Puget Sound Regional Council (PSRC) serves as both the Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO) overseeing regional growth,

transportation, and economic development within King, Pierce, Kitsap, and Snohomish counties. In this role, PSRC is responsible for allocating federal funds for transportation improvements throughout the four-county region. PRSC allocates funds to local agencies through a number of grant funding programs. Below are those programs overseen by PRSC that are applicable to the project.

Allocation of Federal Highway Administration Funds

PRSC is in charge of reviewing and identifying projects which should receive funding from the Federal Highway Administration (FHWA). On a biannual basis, PRSC accepts applications for projects to identify those which should be added to the Regional Transportation Improvement Plan (TIP) and be eligible to receive funding. This program prioritizes projects which expand connectivity and accessibility to regional and local growth centers, as well as those that improve air quality and combat the effects of climate change. This program also incorporates an equity component to ensure that transportation funds are allocated to underserved communities.

Many of the project components are in line with the priorities of this program, as the Meridian corridor connects the local growth center north of 24th Street with the regional growth center at the bottom of the hill in

Puyallup. The following project improvements are those in line with this funding program:

- Roadway widening to provide additional travel lanes (Segment 1 and 2)
- Construction of pedestrian/bicycle multi-use paths along the roadway
- Install a non-linear raised median along the roadway
- Replace signalized or two-way stop-controlled intersections with roundabouts

Transportation Alternatives Program

The Transportation Alternatives Program (TAP) is another FHWA-sponsored program which focuses on funding community-based transportation projects. Eligible project types for this program include pedestrian/bicycle projects, preservation/rehabilitation of historic facilities, and environmental mitigation/management activities. Funds through this program are allocated on 2-year cycles.

The project's pedestrian and bicycle improvements are those that would be eligible for funding as part of this program:

- Construction of pedestrian/bicycle multi-use paths along the roadway
- Installation of signalized mid-block crossing locations

Washington State Department of Transportation

In addition to local funding allocated by PRSC, WSDOT implements multiple funding programs at the state level which can be leveraged to acquire funding for improvements along Meridian. While WSDOT oversees a number of programs with various priorities, the following are those most in alignment with the project improvements.

It should be noted that improvements for Meridian, including BAT lanes, were identified as part of the *SR 167 Master Plan Planning and Environmental Linkages (PEL) Study* prepared by WSDOT in June 2023. While funding sources for these improvements were not specifically identified for the improvements as part of that study, the City will work closely with WSDOT to leverage funding opportunities for the overall SR 167 Master Plan project to identify and allocate transportation dollars for the Meridian corridor. This includes potential opportunities to lobby the state legislature for funding appropriations as part of this regional project.

Highway Safety Improvement Program

As part of a federal program, WSDOT oversees the distribution of funds to advance transportation projects which reduce collisions and increase safety along roadways through the Highway System Improvement Program (HSIP). Local agencies applying for funding through this program are required to prepare and submit a Local Roadway Safety Plan evaluating collision history and identifying safety risk factors along their roadways. Funding through this program is allocated on a biannual basis.

Improvements enhancing safety along Meridian would be eligible to receive funding as part of this program. The following safety measures would be those most in alignment with the program priorities:

- Install a non-linear raised median along the roadway
- Replace signalized or two-way stop-controlled intersections with roundabouts
- Install a southbound left-turn acceleration/deceleration lane at 102nd

Pedestrian & Bicycle Program

The Pedestrian & Bicycle Program is a state-level funding program which allocates transportation dollars to the expansion of active transportation facilities with the goal of improving safety and mobility for pedestrians and bicyclists. This program evaluates projects based on their benefits towards improving the safety and equity of the active transportation network, with consideration also given to the quality, value, and deliverability of the project. WSDOT reviews project applications and selects projects under this program every 2 years.

Similar to the TAP, the project's pedestrian and bicycle improvements would be eligible for funding as part of this program:

- Construction of pedestrian/bicycle multi-use paths along the roadway
- Installation of signalized mid-block crossing locations

US Department of Transportation

The US federal government directly funds projects through a number of grant programs administered by the US Department of Transportation (USDOT) which cover a range of transportation priorities. While USDOT grant funding programs have more extensive reporting requirements, they provide the opportunity to seek funding for larger-scale projects with higher costs.

Rebuilding American Infrastructure with Sustainability and Equity

The USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program funds a variety of transportation project types, including road, rail, transit, and port projects. As part of this program, USDOT reviews and selects projects based on their alignment with a variety of evaluation criteria, including safety; mobility and community connectivity; and innovation. The RAISE program funds both planning and construction projects, though the preparation of a benefit-cost analysis is required as part of the application for capital projects. USDOT awards funding to projects on a yearly basis as part of this program. USDOT requires projects not located in a rural community or in an Area of Persistent Poverty or Historically Disadvantaged Community to provide a 20 percent non-federal local funding match.

Appendix A: Public Outreach Plan



Meridian Avenue (SR 161) Corridor Study Public Outreach Plan

Presented by



Project Overview

The purpose of this study effort is to assess multimodal, access, safety, and environmental needs for SR 161 (Meridian Avenue) from 24th Street E to the southern City limits and confirm future cross-sectional elements and intersection treatments. Key intersections will be analyzed, and strategies and concepts will be developed to improve operations, safety performance, and accessibility for all corridor users. To support the eventual outcomes, input will be sought through a stakeholder outreach effort, and preliminary designs and cost estimates will be prepared for the study recommendation to assist in seeking funds to implement the improvements.

Overall 2022 Work Plan

- | | |
|---|-----------------------|
| • Corridor Assessment: | Aug – Nov 2022 |
| • Community Outreach: | Sept 2022 – July 2023 |
| • Development and Evaluation of Alternatives: | Oct 2022 – May 2023 |
| • Summary of Recommendations: | Jan – July 2023 |

Project Background

The City of Edgewood’s 2023-2028 Transportation Improvement Program (TIP) contains Project #2 that will conduct a preliminary design study of the Meridian Avenue E corridor south of 24th Street. The project will assist the City in defining the extent of the corridor “complete street” improvements such as number of travel lanes, sidewalks, bicycle facilities, and stormwater treatment and detention. The design effort will also consider intersection and access management improvements to address level of service and safety issues along this segment of the corridor.

The Meridian Avenue Preliminary Design Study has been informed by a feasibility assessment that was conducted in 2020 of installing a traffic signal or constructing a roundabout at the Meridian Avenue / 32nd Street E intersection. The traffic signal was found to not meet signal warrants, and constructing a roundabout was shown to cost more than \$2 million dollars. The roundabout would primarily benefit the approximately 30 vehicles per hour that are attempting to turn left from the west approach. Vehicles attempting to turn left from the east approach have alternative routes they could utilize during periods of heavy congestion.

Due to the costs and impacts of constructing a roundabout at the Meridian Avenue / 32nd Street E intersection, and the fact it would benefit a few vehicle trips, a more comprehensive evaluation of alternatives is needed to address the LOS and safety issues along Meridian Avenue between 24th Street E and 36th Street. Alternatives could include access management treatments with complimentary designated u-turns at 24th Street E and 36th Street E intersections. A roundabout at 36th Street E, as identified in the recently prepared Chrisella Road Alternatives Assessment, will provide more benefits at a similar cost to a roundabout at 32nd Street E. Similarly, the section of Meridian Ave between 36th Street E and the southern

City limits will be evaluated to determine how to transition the preferred cross-section at 36th Street E to an appropriate multi-modal section between 36th Street E and the southern City limits, while also evaluating appropriate access to the growing areas on the southern end of the City.

The Meridian Avenue Preliminary Design Study will help the City work with WSDOT to confirm the long-term strategy for addressing operations and safety needs along this stretch of Meridian Avenue, collaborate and coordinate approvals with WSDOT for the future design, and support the City's Town Center Plan effort and other planned land use growth along the corridor.

Public Involvement Plan Overview

The public involvement plan consists of a number of goals and objectives across a few different groups.

A **Corridor Working Group** will first be established to help guide and inform the study throughout the project. The efforts of this group will be a critical element to the study to confirm outcomes and build support for the final recommendations.

Stakeholder interviews will be conducted to help gain a broader understanding of diverse interests in identifying solutions along this segment of the highway.

A **public online survey** will be conducted to inform and gather feedback on the corridor. In conjunction with the survey, we will host a **virtual open house** as an additional way to inform the public of the corridor study and gather input, ideas, and feedback, helping to ensure the study is meeting public needs and expectations. After alternatives and project priorities have been identified and the survey completed, we will then host an **in-person public workshop**.

And finally, the **City Council** will receive periodic updates on preliminary design study and final recommendations.

Communication Goals

- Establish a working group to guide the study, provide input, and help summarize and communicate recommendations.
- Actively engage stakeholders and potentially impacted property owners to ensure broad understanding of common interests and concerns.
- Educate and engage the public to generate ideas, gather input, and ensure public expectations are being met.

Plan Elements

Working Group

The Working Group will help guide the study and provide input on key findings and recommendations. The project team will prepare and present materials and seek feedback from this group throughout the study. The meetings are expected to be held generally every other month (4 total), or more frequent as deemed appropriate.

Working Group Members to include:

- City of Edgewood staff
 - Jeremy Metzler, Public Works Director
 - Morgan Dorner, Senior Planner
 - Evan Hietpas, Associate Planner
 - Jamie Ward, Associate Engineer
 - Chuck Hendricksen, City Engineer
- WSDOT
 - Sarah Ott, Olympic Region Traffic Engineer (ottsara@wsdot.wa.gov)
 - George Mazur, Olympic Region Planning Manager (mazurg@wsdot.wa.gov)
- Pierce Transit
 - Tina Vaslet, Planner II – Bus Stops (tvaset@piercettransit.org)
 - Darin Stavish, Principal Planner (dstavish@piercettransit.org)
 - Tina Lee, PMP, Planning Manager (tlee@piercettransit.org)
- Puyallup Tribe
 - Russ Ladley, Fisheries (russ.ladley@puyalluptribe-nsn.gov)
 - Andrew Strobel, Land Use (andrew.strobel@puyalluptribe-nsn.gov)
- City of Milton
 - Dustin Madden, Public Works Director (dmadden@cityofmilton.net)
 - Angelie Stahlnecker, Planning Manager (astahlnecker@cityofmilton.net)
- City of Puyallup
 - Hans Hunger, City Engineer (hhunger@puyallupwa.gov)
 - Chris Beale, Senior Planner (cbeale@puyallupwa.gov)
- Union Pacific Railroad
 - Peggy J. Ygbuhay, UPRR Western States Public Project Manager (pygbuhay@up.com)

Working Group Meeting Agendas:*Meeting 1 – Oct 26 3-4:30pm (Virtual) – 90-minute meeting*

- Introductions
- Scope/Schedule/Project Overview
- Data Inventory Overview
- Confirm Project Objectives - purpose and need
- Next steps, what to expect

Meeting 2

- Review Existing and Future Needs
- Develop List of Preliminary Alternatives

Meeting 3

- Review Evaluation Findings
- Review Conceptual Designs / Costs

Meeting 4

- Review Recommendations and Phasing
- Discuss the Draft Report

Timeframe: September (establish group members), October - June (4 meetings to be scheduled)

Responsibilities:

City: Identify Working Group members. Send email inviting participation.

Consultant: Prepare text of email invitation. Schedule 4 initial Working Group Meetings and finalize agendas.

Stakeholder Interviews

To gain a broader understanding of diverse interests in identifying issues and solutions along this segment of the highway, Transpo will conduct up to 5, one-on-one interviews with local stakeholders, such as impacted businesses or property owners that have an interest or influence regarding the corridor. Additional stakeholder interviews may be conducted by City staff. The interviews will inquire and investigate key challenges, and opportunities for improving the corridor. Transpo will prepare a discussion script and a draft and final summary of responses. The feedback will be used to confirm the issues and inform the types of solutions that should be considered.

Timeframe: October – November

Stakeholders (as identified by Jeremy)

- Mt. View – Edgewood Water Company: Mike Craig, General Manager, 253-863-7348
Interview scheduled: October 18, 11am
- Nightside Distillery: Tom Greene, Owner, 253-377-1379, etgreene@hotmail.com
Interview scheduled: October 25, 9am
- The Ballet Theatre School: 253-927-3526, **Kathy Wilson**,
theballettheatreschool@gmail.com
Responded, no formal interview but gave feedback over phone
- North Hill Community Fellowship: 253-446-9902
Interview scheduled: no response
- Austin's Auto Sales: 253-256-7117
Interview scheduled: no response

Deliverables:

City/Working Group: Identify key stakeholders by end of September

Consultant: Prepare list of questions, Schedule/conduct interviews Oct-Nov

Final Questions (to be sent to stakeholders prior to phone interview):

1. How does your organization use the corridor today (storefront, parking, employee commute, transit, etc.)?
2. What issues do you currently experience that impact your organization?
3. Do the conditions along Meridian Avenue impact your decision on locating your organization in Edgewood? (i.e. Does current layout attract or deter investment? Would new improvements help retain your investment?)
4. Are there examples of street design elements in other communities that you would like to see replicated along Meridian? (Business-friendly, attractive, walkable, safe)
5. Is there anything unique to your organization that the study team should be aware of as we evaluate options for the corridor?

6. Are you interested in staying involved in the study? If so, what is the best way to communicate with you?

Hybrid Open House

Schedule and promote an online open house to the general public to begin educating the public about the study, and gathering general input, identifying issues, and gathering feedback. Initial public meeting will also help to inform a more detailed survey to be conducted in January.

Scheduled Date: November 17, 6:00pm start time (to be run by council first)

Responsibilities:

City/Working Group: Help promote Open House to key targeted groups and general public through Working Group channels

Consultant: Schedule and lead Open House

Checklist for event:

- Begin promoting by October 17. Transpo to provide invite language by this date.
- Who will be there?
- Confirm materials we need to develop, confirm location/date
- Presentation/online materials –
 - Copies of presentation
 - Boards with corridor map/segment/aerial roll plot
 - Copies of Fact Sheet
- Format – hosted both online and in-person at the same time. Materials provided online for download later.
- City/CWG to notify/invite participants and promote event
- Transpo to supply invite materials – postcard to property owners? Promote on social media posts, Tacoma News Tribune ad, electronic reader board announcement, mention at board meetings, email distribution list.

Online Survey

Create and post a public online survey to gather input, ideas, and feedback. The survey will help further ensure input from a variety of groups and will target specific input on alternatives and issues that may have arisen from the Virtual Open House.

Timeframe: January

Responsibilities:

City/Working Group: Provide input on survey contents, help promote survey through variety of communication channels

Consultant: Design and create online survey, summarize results

In-person Workshop

After feedback has been gathered via the initial open house and survey, and alternatives and priorities have been established, we will host an in-person workshop that share the draft alternatives and priorities and gather feedback on those specifics.

Timeframe: February or March

Responsibilities:

City/Working Group: Help promote in-person workshop through various communication channels, host workshop

Consultant: Schedule and lead workshop, create materials for public education of the alternatives

Promotional Strategies

To promote the virtual open house, survey, and in-person workshop, the City will help to identify the key groups/target audiences that should provide input, including identification of hard-to-reach groups to ensure diverse and inclusive feedback throughout the process.

Promotional materials may include a project website, flyers with QR codes to online information and survey, social media posts, personal invitations to key stakeholders, etc.

City Council Meetings

The project team will present to the City Council during two meetings at key milestones of the project to ensure City Council input is utilized in decisions. Presentations will focus on preliminary design study, and review of the final recommendations.

Timeframe: February and June Council Meetings

Overall Project Schedule



Number / Project Name
Meridian Avenue Corridor Study

UPDATED DRAFT (9/20/2022)

Work Task	2022					2023						
	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
Community Outreach												
Corridor Work Group Meetings			x		x			x			x	
Establish Project Objectives / Eval. Criteria												
Stakeholder Interviews / Outreach												
Online Survey						S						
Open House and Workshop				O				W				
City Council Meetings							cc				cc	
Project Team Meetings	x	x	x	x	x	x	x	x	x	x	x	x
Corridor Assessment												
Traffic Counts / Safety Analysis												
LIDAR & Photogrammetry Data												
Base Map Development												
Travel Forecasts & Operations Analysis												
Development and Evaluation of Alternatives												
Develop Alternatives												
Evaluate Alternatives												
Complete WSDOT ICE(s)												
Summarize Recommendations												
Prepare Preliminary Plans and Costs												
Identify Potential Phasing / Funding Strategies												
Document Findings												

- O Open House
- S Online Survey
- W Workshop
- cc City Council Meeting

Detailed Public Outreach Work Plan

The overall work plan below will serve as the roadmap for implementation of the Public Outreach Plan. Detailed work plans will be developed for components of the plan that requires coordination between consultants and City staff for successful implementation. A sample detailed work plan follows the overall schedule below.

Overall Work Plan

month	activities
September	• Establish Working Group members • Identify key stakeholders and schedule interviews
October	• Conduct stakeholder interviews • Conduct first Working Group meeting
November	• Conduct stakeholder interviews • Host Virtual Open House
December	• Conduct second Working Group meeting • Create and design online survey
January	• Conduct online survey
February	• Analyze and share results of online survey • Schedule in-person Workshop • Present to City Council
March	• Conduct in-person Workshop • Conduct third Working Group meeting • Schedule in-person Workshop
June	• Conduct fourth Working Group meeting • Present to City Council

Appendix B: Public Outreach Feedback

Appendix B: Stakeholder Feedback Q&A

Meridian Ave Corridor Study – Stakeholder Feedback/Questions

Meeting with WSDOT – March 28th

1. **How would the ranking/scoring of alternatives change if the weighting factors for the Intersection Operations and Safety evaluation criteria were adjusted to give greater influence to the safety criterion?**

Answer: Although the Intersection Operations evaluation criteria was given the largest weighting factor based on feedback received from the community, the design alternatives which received the overall highest scores were not the Alternatives which scored highest for the Intersection Operations criteria. For Segment 1, Alternative C scored the highest overall, despite Alternative B scoring highest for the Intersection Operations criterion. Similarly, for Segment 2, Alternative A scored the highest overall, despite Alternative B scoring highest for the Intersection Operations criterion.

If the weighting factors were adjusted so that the Roadway (Vehicle) Safety criterion were given greater influence than the Intersection Operations criterion, the ranking of the alternatives based on overall score would not change for either Segment 1 or 2. Alternatives C and A would continue to score the highest for Segments 1 and 2, respectively.

2. **WSDOT typically uses a threshold of 24,000 vehicles per day for determining roadways which are candidates for road diets. If the study corridor is fed by segments of Meridian Avenue which are two-lane facilities, would the widening of the current 3-lane facility be necessary to accommodate traffic volume demands?**

Answer: Based on the forecast peak hour volumes, Segment 1 along the corridor is expected to carry approximately 21,000 daily vehicle trips under future (2035) conditions. Generally, a three-lane roadway in an urban setting provides an operational capacity of between 18,000-21,000 daily vehicles. Currently, the portion of Meridian Avenue evaluated by the project represents the narrowest portion of the corridor with the least capacity in terms of the number of travel lanes. Along Segment 1 (between 24th Street and 36th Street), the roadway provides only one travel lane per direction. Along Segment 2, the roadway provides one southbound lane along the entire segment and two northbound lanes between 36th Street and Dechaux Road and one northbound travel lane between Dechaux Road and Spencer Street (across the Union Pacific Railroad tracks).

North of the project segment, Meridian Avenue provides two travel lanes in each direction through Edgewood's Town Center area and into King County. The roadway continues northward as Enchanted Parkway where it continues to provide two travel lanes per direction past its interchange with SR-18 and I-5 in the City of Federal Way. South of the project segment, Meridian Avenue provides two travel lanes in each direction as it enters the City of Puyallup and connects with the SR-167 freeway. At River Road/2nd Street in Puyallup, the southbound traffic continues via a two-lane one-way segment along Meridian Avenue, while northbound traffic travels via a two-lane one-way segment along 2nd Street.

It should also be noted that, along the project segment of Meridian Avenue, the northbound approach at 24th Street and the southbound approach at 36th Street have already been widened to provide a 4- or 5-lane cross-section. Thus, widening Segment 1 of the roadway would implement a consistent cross-section along the approximately 3,500-foot segment between these two intersections.

Therefore, the project segment of Meridian Avenue is not fed by any other two-lane facilities and the project segment, with reduced lane capacity, serves as the bottleneck constraint along the rest of the corridor.

- 3. Since a bicycle trail is proposed parallel to Segment 2, would bicycle traffic be shifted away from the shared used path along the corridor? The plans for the proposed concept plans show bicycle ramps connecting to this proposed facility along the east side of the roadway. Are these ramps necessary?**

Answer: It is the City's goal to provide a facility for bicyclists adjacent to the Meridian Avenue corridor which support bicycle usage for riders of all ability and comfort levels. This alternate facility would provide a proximate, parallel facility for bicycle traffic away from the high speeds and volumes along Meridian Avenue. While many riders may choose to use the off-street facility, some riders may elect to use the shared use path proposed along Meridian Avenue. The provision of both facilities provides bicyclists with multiple options for traveling between the City and the Puyallup Valley. As such, bicycle ramps are provided along Meridian Avenue to connect to the shared use path along the south approach of Meridian Avenue at 36th Street.

- 4. How will the 11-foot shared use path area along Segment 1 be delineated between bicycle and pedestrian traffic?**

Answer: Upon further design of the pedestrian and bicycle facilities along Segment 1, the City plans to provide marked separation between bicycle traffic and pedestrian traffic along the off-street shared-use path. The marking of dedicated pedestrian and bicycle space along the roadway will be determined as the design of the project is advanced.

- 5. The information provided in the presentation appears to provide greater context regarding the decisions behind why the 2-lane configuration for Segment 1 was not advanced to the Level 2 screening process than in the report. Can this information be documented/ expanded upon in the report to provide greater context for the decision-making process?**

Answer: This comment is received and noted. The report has been revised to include the additional reasoning behind why some measures (primarily the 2-lane configuration for Segment 1 and the potential Business Access and Transit lanes) were not advanced to the Level 2 alternatives screening process. This additional explanation provides more detailed information to better outline and clarify the decisions behind the alternative development.

- 6. Can today's presentation be shared with WSDOT?**

Answer: Yes, the presentation slides were shared with the WSDOT team following the meeting.

Meeting with Project Stakeholders – April 2nd

- 1. Pierce Transit would need to review detailed plan sets to ensure that the proposed roundabouts and relocated bus stops along Meridian Avenue could be safely traversed and accessed by transit buses. When could these plans be provided for review?**

Answer: Design plans for the corridor will be shared with project stakeholders and partners as the design of the proposed concept is advanced. At the current stage, the plans for the roundabout and bus stop relocations are conceptual and are likely to change. Pierce Transit will be kept informed throughout the design process and will be provided with the opportunity to provide feedback on design plans for the corridor as the process proceeds.

- 2. Please provide further evidence and justification for the need to widen the roadway to provide the second travel lane. There is concern that based on the ADT volumes, this roadway may have the potential in the future (after widening) to become a candidate for a complete streets/road diet project reversing the addition of the travel lanes. If extensive queueing and delay is experienced for a single hour during the peak period under a three-lane configuration, this may be acceptable if the roadway operates well during the remainder of the day.**

Answer: Previous studies for the corridor have identified Meridian Avenue for widening to a five-lane cross-section between 24th Street and 36th Street (Segment 1), including the Route Development Plan for State Route 161 prepared by WSDOT in January 1997. The widening of Meridian Avenue north of 24th Street, implemented by WSDOT in 2012, was originally intended to extend the five-lane cross-section south to 36th Street. However, due to cost increases and budget constraints, the scope of the project was reduced to end the five-lane cross-section at 24th Street.

Based on the intersection analysis conducted for the corridor, single-lane vs. multi-lane roundabout configurations were evaluated at several intersections along Segment 1 which were considered for roundabout improvements. As shown in the table below, single-lane roundabouts were shown to experience high delay and queueing in the southbound direction during the PM peak hour.

Intersection	Approach	Total Approach Volume	2035 Conditions – PM Peak Hour							
			Single-Lane Roundabout				Multi-Lane Roundabout			
			LOS	V/C	Delay (s)	Queue (ft)	LOS	V/C	Delay (s)	Queue (ft)
Meridian/29th	NB	836	A	0.719	4.6	255	A	0.355	4.3	47
	SB	1281	F	1.077	45.8	5,881	A	0.535	4.3	96
Meridian/32nd	NB	771	A	0.720	5.5	221	A	0.350	4.7	49
	SB	1261	F	1.107	58.2	3,051	A	0.544	4.6	104

During the AM peak hour, directional flow patterns reverse along Meridian Avenue, with the northbound direction experiencing peak hour flows above 1,000 vehicles per hour.

Therefore, it is expected that the southbound queueing and delay issues experienced at the single-lane roundabouts in the PM peak hour, would be experienced in the northbound direction during the AM peak hour. Additionally, when accounting for anticipated traffic growth along the corridor, it is expected that the roadway will carry direction volumes above 1,000 vehicles not only during the peak hour, but throughout the entire peak periods. Thus, the queueing and delay concerns identified in the table above are anticipated for multiple hours throughout the day.

Further, unlike the segment to the north between 8th Street and 24th Street, the segment of the Meridian Avenue between 24th Street and 36th Street does not have a planned parallel connection as part of the Parallel Road Network. Therefore, traffic to and from planned developments along the roadway will be required to utilize Meridian Avenue as the primary access route. Thus, the second travel lane in the northbound and southbound directions will also be used to accommodate local access to and from anticipated development along the corridor.

Finally, the addition of a second travel lane in both the northbound and southbound direction along Segment 1 will accommodate potential managed lane configurations along the roadway in the future, including the Business Access and Transit (BAT) lane concept identified in the WSDOT SR 167 Master Plan. While this improvement would require that land use densities and transit ridership and headways are supportive of such facilities, the four-lane cross section would provide flexibility in the future to introduce these transit improvements.

Edgewood Comprehensive Plan Update – Transportation Element Open House – April 11th

1. The proposed concept for Segment 2 provides 2 northbound travel lanes and 1 southbound travel lane. How were these lane assignments determined?

Answer: Lane assignments for the corridor were determined based an evaluation of traffic volume forecasts for the roadway. The proposed lane assignments for this segment of the corridor represent no change from the current channelization along the roadway. It was determined that future southbound volumes along Meridian Avenue, south of 36th Street, could be accommodated by a single travel lane. Proposed improvements to the SR 167 interchange with Meridian Avenue are expected to improve flow along the entire Meridian corridor and address some existing congestion issues. While other potential lane assignments were evaluated for the corridor (for example, providing two southbound lanes and one northbound lane), the existing configuration with 2 northbound lanes and 1 southbound lane was determined to best accommodate the forecast traffic flows along the corridor.

Maintaining the second northbound lane along Segment 2 was necessary to provide a truck climbing lane along this segment of the roadway. This segment of the roadway has an approximately 4,500-foot uphill slope with a 6% grade. Over 12% of northbound volumes along this segment of the roadway are accounted for by single-unit trucks or larger (FHWA Vehicle Class 4 or greater). Per the WSDOT Design Manual Chapter 1270,

and based on the factors above, the roadway meets the warrants requiring provision of a truck climbing lane.

2. **The proposed concept for the Meridian Avenue/36th Street roundabout and realignment of Chrisella Road would funnel all Edgewood Community Park and Chrisella Road traffic onto 36th Street. Has westbound queuing at this intersection been reviewed as it related to the proximity of the intersection to the entrance to the Edgewood Community Park parking lot?**

Answer: The installation of the roundabout at this intersection is expected to improve operations for the westbound approach. Under the current signal configuration, westbound traffic is served by a single approach lane, requiring all vehicles to wait for the green light (especially if a vehicle making a left-turn or through movement is at the front of the queue). Under the proposed roundabout configuration, the average delay per vehicle along the westbound approach would reduce as all westbound movements would need to only wait for a gap in the circulating traffic to enter the roundabout. A comparison of delays and queueing along the westbound approach to this intersection is provided below:

Intersection	Peak Hour	2035 Conditions – Westbound Approach					
		Signal Control			Roundabout		
		Delay (s)	LOS	Queue (ft)	Delay (s)	LOS	Queue (ft)
Meridian/36th	AM	137	F	496	14	B	126
	PM	106	F	389	9	A	45

As shown above, the westbound approach of the intersection would experience decreases in the delay and queueing because of the installation of the roundabout. The Edgewood Community Park parking lot is approximately 250 feet east of the Meridian Avenue intersection. Thus, under the signal configuration, the park entrance is frequently blocked by the queue extending from Meridian Avenue. However, under the roundabout configuration, the queueing would be reduced and is not expected to extend beyond the park entrance. Thus, eastbound left-turn movements into the park entrance are not expected to be blocked and would not backup into the roundabout at Meridian Ave/36th St (and would not cause gridlock in the roundabout). Further evaluation would be performed as the design is progressed to ensure provisions are made to prevent conflicts and impacts.

Edgewood City Council Presentation – April 23rd

1. **Transit was shown to score low for all the design alternatives. How is this being addressed as part of the recommended concept?**

Answer: The ultimate vision for the corridor is to install the Business Access and Transit (BAT) lanes along the roadway, as identified within WSDOT's SR 167 Master Plan. These improvements would greatly improve future transit travel time and reliability through the City of Edgewood and would make transit a more attractive mode of travel for residents within the City. However, Pierce Transit's current plans and funding allocation do not plan for bus service and headways which would support the installation of these

lanes. Research has indicated that exclusive BAT lanes typically are for corridors that serve 10 or more buses an hour, or 15 minute service or greater. Therefore, the BAT lanes are not included as part of the recommended improvements within the corridor study. Instead, in-line transit stops are proposed which will reduce transit delay by eliminating the need for transit buses to merge into and out of the travel lane. These improvements will serve as an interim improvement until more frequent transit service is provided along Meridian Avenue that will support the installation of the BAT lanes.

2. **The proposed concept for the corridor shows the phasing of improvements along Meridian Avenue moving from north to south, beginning around 24th Street. How were the phases determined and did they consider ongoing planning and design efforts for improvements along the corridor (e.g., the 36th Street roundabout and the Chrisella Road realignment)?**

Answer: Project phasing for the improvements was prepared in such a way that each phase could be installed independently with minimal impacts to operations along other segments of the corridor. Therefore, Phase 2, which contains the improvements at 36th Street, can be implemented prior to improvements in Phase 1. Given the ongoing work with the 36th Street roundabout and Chrisella Road realignment, it is possible that these improvements may be implemented prior to widening of the corridor north of the intersection. The improvements planned for this intersection can tie into the existing roadway width until the segment north of the intersection can be implemented.

3. **The proposed recommendation identifies roundabout improvements at 32nd Street and 36th Street. What level of operational improvement can be expected along the side street approaches at these intersections?**

Answer: The table below summarizes the side street delay under existing conditions compared to the future conditions with the installation of the roundabout at these two intersections. As shown, these approaches are expected to experience reductions in delay of up to 90% during the peak hours. This substantial reduction in delay is expected to accommodate additional vehicular throughput along these intersection approaches.

Intersection	Peak Hour	Approach	Existing (2023) Conditions			Future (2035) Build Conditions		
			Int. Control	Delay (s)	LOS	Int. Control	Delay (s)	LOS
Meridian/32nd	AM	EB	TWSC	70	F	RAB	9	A
		WB		70	F		8	A
	PM	EB		89	F		9	A
		WB		76	F		11	B
Meridian/36th	AM	EB	Signal	47	D	RAB	10	B
		WB		50	D		14	B
	PM	EB		51	D		10	B
		WB		55	E		9	A

4. **Meridian Avenue narrows in front of the Simon's Mill Apartment complex. Can the proposed 5-lane cross section be accommodated along this segment?**

Answer: Due to limitations on the available right-of-way in front of the Simon's Mill development, a 4-lane cross-section has been proposed along this segment. The cross section will provide 2 travel lanes in each direction (with no raised median provided along this segment). Access management measures will be installed along the centerline of this segment to prevent left-turn movements into and out of the apartment complex.

5. The weighting factors assigned to the evaluation criteria prioritized community support over safety. How was safety prioritized in the final recommendation for the roadway (especially for bicyclists and pedestrians)?

Answer: In the Alternative Evaluation for Segment 1, the alternative which received the highest overall score was Alternative C, which scored highest in all three safety criteria. This concept (which included roundabouts at intersections to slow travel speeds along the corridor) was advanced as part of the final recommendation for the corridor. Changes to the weighting factors to prioritize the safety over community support would not have an impact on which alternative scored the highest for Segment 1.

For Segment 2, the alternative which received the highest overall score (Alternative A) did not receive the highest scores for the three safety criteria. However, when this alternative was advanced to the final recommendation some of the safety improvements from the other alternatives were incorporated into the final recommendation to improve the safety rating of the proposed concept. This included access management improvements at 102nd Avenue and traffic calming measures (roundabouts) from Alternatives B and C. It should be noted that scoring for the vehicular safety criterion was heavily reliant on improvements at 102nd Avenue. Options for access management strategies (including right-turn only restrictions from the minor street approach) are being refined for this intersection to determine the improvements which prioritize safety while also maintaining an adequate level of accessibility.

6. For Segment 1, the proposed recommendation for the corridor moves the bike facility off-street, adjacent to the sidewalk. How does this proposed configuration promote bicycle and pedestrian safety if these two travel modes will be sharing the same facility?

Answer: The primary motivation for the selection of the shared, off-street facility was to remove conflicts between vehicles and bicyclists, as these conflicts are those that typically result in serious injuries and fatalities. The selection of the off-street bicycle facilities also aligns with the feedback gathered from community members as part of the public survey. As design for the project advances, delineation between pedestrian and bicycle space along the shared use path will be incorporated into the plans. This will help to provide separation between bicyclists and pedestrians and limit conflicts between these roadway users.

7. Segment 2 of the corridor, especially near 102nd Avenue, currently presents many safety concerns. How will the installation of a shared-use path for pedestrian and bicyclists make this segment of the roadway safe for these roadway users?

Answer: As part of the shared use path installation, a 4.5-foot landscaped buffer is proposed between the vehicular travel lanes and shared use path. This additional separation between the auto modes and the pedestrian/bicycle modes will enhance comfort for users along the shared use path. In addition, traffic calming measures along the corridor (such as roundabouts), are intended to slow travel speeds and increase safety along the entire corridor. Nevertheless, some pedestrians and bicyclists may not feel comfortable using the shared use path directly along Meridian Avenue. Thus, the off-street facility proposed west of Meridian Avenue will provide non-motorized connectivity between 36th Street and Puyallup for those users.

- 8. There is likely limited transit demand at the 102nd Avenue intersection and installation of a bus stop at this location may increase safety concerns at this intersection which already experiences many collisions. Is a bus stop at this location necessary?**

Answer: The City will coordinate with Pierce Transit regarding whether transit demand warrants the installation of a bus stop at this location. Other means of connectivity to transit via alternative travel modes are being explored for this neighborhood.

It should be noted that proposed access control measures are being evaluated for the intersection at 102nd Avenue. To reduce rear end collisions at the intersection, a southbound left-turn pocket is being considered so that left-turning vehicles onto 102nd Avenue are provided a space outside of the southbound travel lanes to queue while waiting for gaps in northbound traffic. Additionally, right-turn only restrictions are being considered for the 102nd Avenue approach given sight distance limitations. The roundabout intersection proposed at 36th Street will provide vehicles from 102nd Avenue with a convenient location to make a U-turn if they want to head south into Puyallup.

- 9. As a result of the WSDOT SR 167 project, traffic volumes are expected to shift from the Meridian Avenue corridor. Have these expected changes in traffic flow been accounted for when evaluating the planned configuration for the roadway? Might these changes in flow require different lane assignments (especially along Segment 2) in the future?**

Answer: The traffic volume forecasts along Meridian Avenue prepared as part of the corridor study were compared to the traffic volume forecasts prepared for the WSDOT SR 167 Master Plan project. The traffic volume forecasts for Meridian Avenue were determined to be consistent and supportive of the traffic volume forecasts from the WSDOT study after completion of the SR 167 Extension. Additionally, the Edgewood travel demand model has already assumed completion of the SR 167 Extension as part of its long-term forecast year, which accounts for traffic shifts along Meridian and across this region of Pierce County. Thus, the traffic volume forecasts were shown to account for changes in travel patterns associated with the completion of the SR 167 project. The lane assignments identified for the corridor are those necessary to accommodate traffic volumes after completion of the SR 167 Extension.

- 10. The southbound direction of Meridian Avenue currently experiences extensive delay and queuing in the PM peak hour. Was this existing concern evaluated and how can this problem be addressed as part of the Meridian Avenue corridor study?**

Answer: The analysis conducted as part of the study identified that much of the delay along the corridor was associated with operations at the Meridian Avenue interchange with SR 167. As part of the SR 167 Extension project, improvements to this interchange will be implemented, which is expected to improve southbound flow along the corridor. Improvements at the interchange are expected to reduce congestion and queuing south of the City, in turn improving flow along the segment of Meridian Avenue in the City of Edgewood. Thus, with the SR 167 improvements planned for the area, the single southbound lane along Segment 2 is expected to accommodate anticipated southbound flow in the future.

- 11. There will likely be limited pedestrian and bicycle demand along Segment 2 of Meridian Avenue. Can the off-street facility proposed west of the roadway be used to satisfy pedestrian and bicycle connectivity requirements so that the area for the shared use path can be repurposed to provide additional transit capacity?**

Answer: In line with WSDOT's Complete Street policies, one of the priorities of the project is to provide alternative mode accessibility to all land uses along the corridor. While the planned off-street facility would provide non-motorized connectivity between 36th Street and the City of Puyallup, it would not provide the necessary pedestrian and bicycle connectivity for residences along Meridian Avenue (and along 102nd Avenue). Therefore, the shared-use path along the east side of Segment 2 is necessary to provide bicycle and pedestrian connections to the north and south for the residential land uses along the roadway and meet the WSDOT complete requirements.

- 12. Can the old Puyallup River bridge be used as the pedestrian bridge across the UPRR for Segment 2 of the corridor?**

Answer: The old Puyallup River bridge has a span of 370 feet, but the UPRR crossing is about 260 feet. Thus, the old bridge is not quite the right fit for the pedestrian bridge.

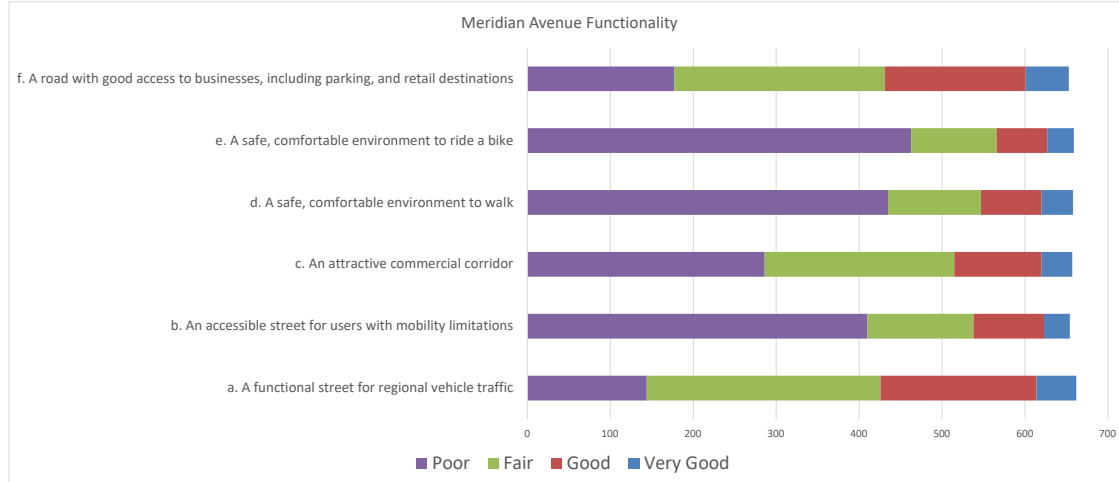
- 13. Is the Meridian Avenue widening project a WSDOT-lead project or a City of Edgewood-lead project?**

Answer: The lead agency for the Meridian Avenue widening project is dependent on the agency who acquires the funding and has the resources to manage the project. Previous widening projects along the roadway were lead by WSDOT; however, that does not mean that future projects need to also be WSDOT-lead.

Appendix B: Public Survey Results

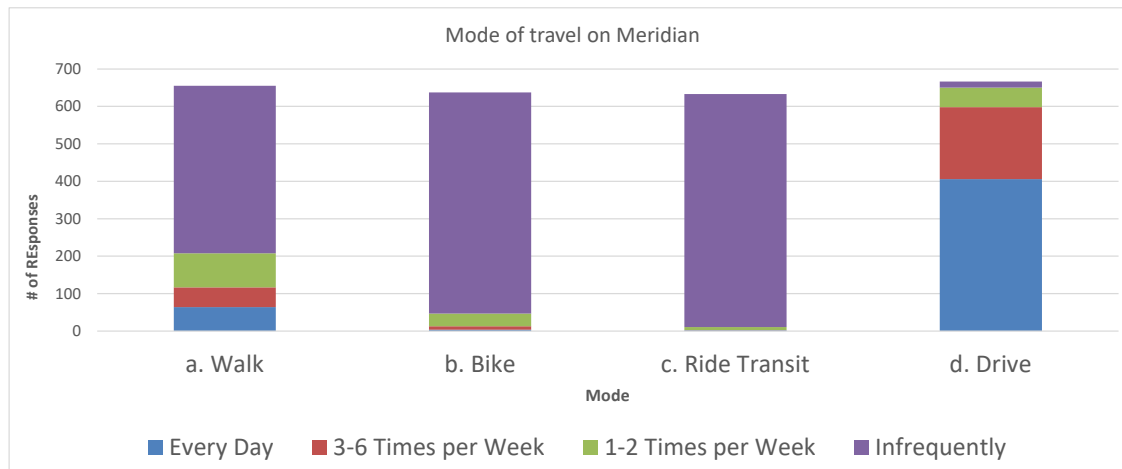
1. What is your impression of how the Meridian Avenue corridor (between 24th St E and Todd Road E) fulfills the following functions?

	a. A functional street for regional vehicle traffic	b. An accessible street for users with mobility limitations	c. An attractive commercial corridor	d. A safe, comfortable environment to walk	e. A safe, comfortable environment to ride a bike	f. A road with good access to businesses, including parking, and retail destinations
Very Good	48	31	37	38	32	52
Good	188	85	105	73	61	170
Fair	282	128	229	112	103	254
Poor	144	410	286	435	463	177



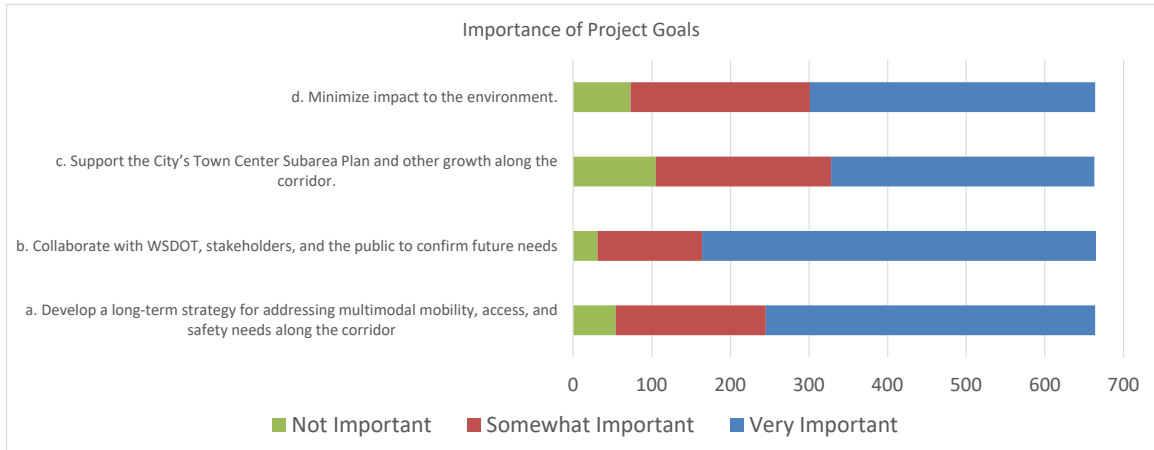
2. How often do you walk, bike, ride transit, or drive along Meridian Avenue?

	a. Walk	b. Bike	c. Ride Transit	d. Drive
Every Day	64	4	2	406
3-6 Times per Week	53	9	1	192
1-2 Times per Week	91	34	8	52
Infrequently	447	590	622	16



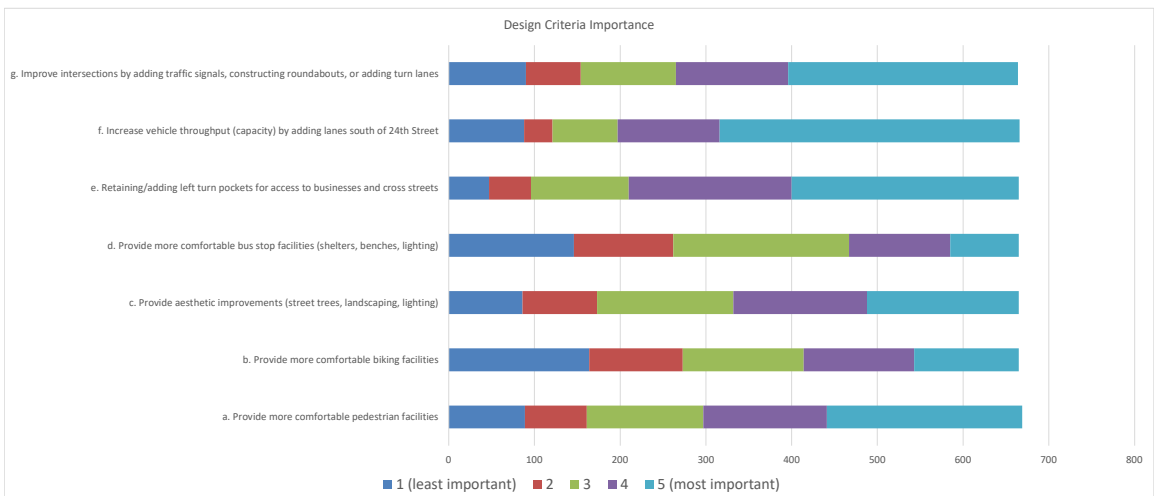
3. The project goals for the Meridian Avenue Corridor Study are listed below. How important are these goals to you?

	a. Develop a long-term strategy for addressing multimodal mobility, access, and safety needs along the corridor	b. Collaborate with WSDOT, stakeholders, and the public to confirm future needs	c. Support the City's Town Center Subarea Plan and other growth along the corridor.	d. Minimize impact to the environment.
Very Important	419	501	335	363
Somewhat Important	191	133	223	228
Not Important	54	31	105	73



4. On a scale of 1 to 5, please indicate level of importance for the following design criteria for Meridian Avenue:

	a. Provide more comfortable pedestrian facilities	b. Provide more comfortable biking facilities	c. Provide aesthetic improvements (street trees, landscaping, lighting)	d. Provide more comfortable bus stop facilities (shelters, benches, lighting)	e. Retaining/adding left turn pockets for access to businesses and cross streets	f. Increase vehicle throughput (capacity) by adding lanes south of 24th Street	g. Improve intersections by adding traffic signals, constructing roundabouts, or adding turn lanes
1 (least important)	89	164	86	146	47	88	90
2	72	109	87	116	49	33	64
3	136	141	159	205	114	76	111
4	144	129	156	118	190	119	131
5 (most important)	228	122	177	80	265	350	268



5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

Do not extend multimodal past 36th street intersection.

Please, no roundabouts.

Whoever permitted Simon's Mill to build right up to Meridian should be fired. It makes widening Meridian difficult and completely at expense of the properties on the west side of the streets.

Encourage small business not more apartments!

3A it's a road for cars, not anything anyone wants to "travel" on. Stop pandering.

3b - that's what we're doing now.

3c - here's a plan for the suburban Corridor, don't put 600 more apartment complexes on it. And maybe make the park you guys just finished about three times bigger so it actually accommodates the thousands of new residents that live in said apartments.

3d - every single car driving through Edgewood a day could be a Tesla and it still wouldn't offset the emissions coming from all the semi trucks at the port and along river road. Expand the road and spare me with the environmental virtue signaling.

Please do not construct roundabouts.

Street lights (aside from aesthetics) would add better visibility at night and safety. Would prioritize that over

A park at city hall would be nice

Left turn lane

People don't want to walk along Meridian, it is a highway to get from I-5 to Puyallup and from Edgewood to the grocery store in Milton. No one walks on Meridian on the South Hill in Puyallup, for example. Also, only athletes have the stamina to bicycle up the Segment 2 north hill, so don't waste precious space squeezing in a bike route, it won't

Add more lanes all the way to the bottom of the hill to remove the bottle neck. Need more pedestrian friendly

No

If you're not stuck behind someone going 20 in a 35, you've got people passing you going 50. The merging to 1 lane and then back to 2 lanes is super annoying because everyone drives like they need to defecate.

Add bike lanes and additional walking sections on the main streets that parallel Meridian. It's not a main thoroughfare and would allow local traffic to flow without pedestrian interference

Timing green lights through corridor

Must include elements to curtail speeding

I think we missed the boat by not having a larger natural buffer between the earlier improvements along Meridian in Edgewood and Milton. It doesn't look friendly and inviting to have such a small setback to the Commercial and High Density areas. We are a unique area and should try to make it as desirable and beautiful as we can along this

As a resident on 102nd Ave E, I hope for a safer way to enter and exit my street. A traffic light would be ideal but even flashing signs warning of upcoming turns might help. My children will be driving in the next couple of years.

Please exclude or limit roundabouts. They are generally disliked by the public and often create more problems than their creators realize when planning them.

Traffic lights and turn lanes are fine. But please limit or exclude roundabouts. The public generally does not like them and they often create problems unforeseen by the engineers that design them.

This survey is poorly worded.

No roundabouts!!! Traffic is too busy on this road for this.

out of A,B,C,D well lit streets first for safety

Need to make right lane at 24th south bound turn only and get rid of two lanes beyond. Having two lanes through and beyond 24th promotes aggressive driving because assholes are impatient and cut people off trying to squeeze into my lane flow. Making single lane south beyond 24th, and making right lane up to 24th will address this issue.

Maybe it's considered in "f" but providing increased vehicle throughput, while attractive to Edgewood residents, would end up being attractive to our neighbors to the south, thus adding more clogging to the "too much traffic" problem of

Create an environment on Meridian which draws retail businesses that add to a more vibrant and creative community.

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

Try to get rid of the Damn billboards that make Meridian look so trashy. Years ago, we tried to make Meridian more of a boulevard, with planted medians, no suicide lanes, more of an attractive road than a thoroughfare. After listening to us, WSDOT said thanks but no thanks and did what they had wanted to do in the first place. We had said things like "no used car dealers" and of course "no apartments" (though I understand, to a point, why we needed them) (though Stop building self storage places... they are the biggest blight!

Public safety is #1

city cost to maintain center green belt

In order to have effective traffic flow and capacity for the future, the building of additional multi-family units on Meridian should be put on hold. The additional units along with the sudden increase in development in Edgewood off of Meridian corridor has produced a significant increase in the volume of traffic and the safety of pedestrians.

If you widen the lanes, what will you do to go down the hill. Still have a bottle neck there.

Keep Edgewood a more rural community and discourage commuters

Roundabouts are confusing and they eat up a large area stoplights crosswalks and multiple lanes are most important

More crosswalks that are well-lit, with blinking signs.

No used vehicle lots!! Looks trashy

It's important that meridian is walkable and safe - you should be able to get to the city park without feeling like you have to walk in traffic. Add additional businesses that encourage walking like restaurants, and additional grocery store. Get businesses that will add to the attractiveness of Edgewood and entice people to stop instead of pass through. No more storage or car dealerships on the main drag - ugly and don't offer much to visitors and arguably

Intersection Meridian & 36th Street E needs a NO right turn going north from 36th Street E (The community Park). This is a blind intersection from traffic heading north from Puyallup. In addition Chrisella intersection is dangerous to

I live on Meridian at Simon Mills apartments the speeding is out of control. Please put up speeding camera located at 24th street at the merge to 1 lane. We also can hear motorcycles speeding up and down day and night.

It is a challenge to enter or exit from our apartments.

please keep the lower speed limit and enforce it.

Dislike roundabouts!

Safety barrier between north and south traffic on segment #2.

Consider at least one pop-up toilet, if for no other reason than this. Johns Hopkins indicates over 25 million adult Americans experience temporary or chronic urinary incontinence (<https://www.hopkinsmedicine.org/health/conditions-and-diseases/urinary-incontinence/urinary-incontinence-in-women>). Go in any supermarket or drug store and you will find a section of incontinence supplies. Add to that the children - particularly preschool - who necessitate the immediate use of a lavatory (and the position their parents or guardians are usually relegated to to try to find one that

NA

I'm an avid cyclist when the weather is good and have always wanted to utilize these segments to get down the hill - I'd love to have this as an option.

Lowering speed limit or enforcing speed limit i.e. traffic cameras.

Na

Consideration for property owners on the east side of Meridian. With added traffic to include homeless camps , property owners , now have to time when to leave home (school busses, semi trucks, construction vehicles) now add north/south traffic to/from Puyallup, snarl, tangle, wait lines, is waiting. It can take upwards of twenty minutes, just to get to the bottom of Meridian much less access cross roads (I-5, Hwy 512). With buildings right to the edge of Meridian, who will be the first to lose , due to eminent domain? What will that mean for owners? The original dream

Slowing traffic not addressed and reducing traffic volume not addressed

Yes, add a crosswalk between 16th and near Les, Schwab. Folks running across are dangerous when running across with e lanes of traffic. Should be added so no one is run over.

There are significant incidents of "road rage" as the road narrows after 24th; and the left turns into neighborhoods in Segment Two are very scary. I would make sure both are addressed. In terms of improving our town and the lives of residents, walkability and bikeability are critical items for the future that we do not have now, ESPECIALLY in

Noise reduction

No

As the area keeps expanding, room for more cars is the most important. I don't see many people walking or biking in this area, but tons of cars drive it everyday. Bike lanes are nice, but hardly anyone will use them.

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

Without the introduction of a better selection of attractive stores, services and restaurants , there's not much need for improvement, because no one is stopping in their way through town.

Don't add a roundabout on Meridian. Increase to two lanes for traffic in each direction.

parallel road network

As a renter at one of the apartment complexes on Meridian, it is very difficult to take either a right or left turn out onto Meridian during commuter hours. The timing of the signals seems to have traffic coming all at once from both directions. Half of the drivers on Meridian seem to drive like it's a residential neighborhood while others treat it like a highway. It's difficult to determine if oncoming cars are going 35 or 55 while waiting for a chance to turn out. In addition, it would be great if the corridor felt more walkable. It's odd to me that I live so close to the grocery store but I don't feel like I can safely or conveniently walk there. I think it's especially important since there are so many children

Keep future maintenance costs of the improvements to a minimum. (No need to cut fancy crosshatch patterns into the sidewalks and pay to pressure wash the moss out of the crosshatch in the future). Also, lighting is important for

I don't think that lighting should be considered aesthetics. Street tree's and landscaping are far less important to me than lighting on the sides of the roads. Pedestrians deserve to see if they are walking and it's much safer for many reasons to have good lighting. Street trees and landscaping should be a separate subject from lighting due to this.

Prevent this section of Meridian from becoming the traffic mess of south hill Puyallup. Maintain the values that make N/a

We need a larger police presence to lessen speeding and business break-ins and better street lighting.

**** NO ROUND-A-BOUNTS !!!!!!!!!!! ****

No roundabouts on Meridian

Make it aesthetically appealing. It currently looks rundown.

City should have looked into this before letting those apartment buildings to have been built so close to the street, No roundabouts!

cross walks across meridian to community park

#1 - Reduce the noise from the heavy amount of traffic travelling through our city. Edgewood Community Park is a wonderful open space; the noise from traffic detracts from the enjoyment of the park. This will only get worse as the road is modified allowing higher speeds from the transient vehicles.

#2 - Reduce the amount of vehicle exhaust pedestrians are exposed to. Sidewalks are a great improvement to our city but walking along Meridian is unpleasant due to the fumes from the traffic.

You missed safety, all your proposal make higher traffic volumes, ie less safe. Need to slow traffic doi to 25mph and ticket reckless speeding the are drivers ding 50+mph and never get pulled over. More round abouts add 4 more between Safeways and top of hill before widening any traffic lanes.

I do not care about biking on or walking on Meridian. It's too busy and I'd rather bike/walk back streets. For question 2 above you should have had a "never" answer, as I never walk/bike Meridian and having to choose infrequently isn't a true representation for many of us, and I believe it skews true results.

These topics se very vague and lump too many topics into one question/response.

Do not add a roundabout at the intersection of Meridian and 36th.

N/A

Avoid turn abouts and when installing traffic signals always include an actual turn signal and not a flashing yellow arrow. I'd like to see crosswalks that have the flashing safety lights to draw attention to drivers warning of pedestrians. NO MORE apartment complexes!!! They are ruining our community.

Definitely need sidewalks on both sides of the street from 24th to 36th - it is very dangerous for people to presently walk. Roundabouts are going to make the traffic worse. Traffic signals work fine except for the one at 24th which often only lets 3 cars through and yet other times it appears normal. Trucks don't work well in roundabouts as they

No roundabouts.

The biggest problem with the corridor is that segment one is just two lanes of traffic. It should have been expanded years ago, so until that is fixed not much else will matter. The second biggest problem is the lack of any retail of interest. No decent grocery, eateries, etc. are anywhere along Meridian. The one destination establishment, Edgewood Flower Farm, was paved over for high-density housing, adding to the already bad congestion and noise on It's very important when deciding on widening meridian that people's property isn't taken away for this.

No roundabouts! They are a menace and cause more problems then they solve. How much of the publics personal property do you plan on taking to complete these plans? The least invasive is best. There are zero shops going down the hill to Puyallup. No need for a walking or bike lane in that space.

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

Sidewalks, signal at 32nd and Meridian

No roundabouts! This should be a hwy not a bike and walking pathway.

No roundabouts!

Meridian is a highway, no place for biker riders, or pedestrians. A round- a -bout is absolutely the most absurd

There does not need to be bike lanes in this area. No one in their right mind rides a bike up or down the hills and the city want to entice that activity would make it unsafe for all.

No roundabouts!!

Make sure to have physical barriers between cyclists and cars. Cycling in the area is dangerous because of the road design and careless drivers. Also many neighborhood elementary or junior high kids like to walk or bike as there are schools, parks, and residential housing nearby. Improve access to public restrooms as cyclist and walkers need

In order to create a more enticing Town Center, I feel more commercial (specifically retail or food related) is needed. While adding high density residential is needed to add growth in the desired corridor, requirements for mixed use and keeping commercial along meridian with residential above and behind the commercial spaces should be used. While the corridor project likely is only looking at improvements to ROW, it would be great to see improvements that

Most importantly, stop over developing Edgewood with apartments, and housing developments please!

Some sort of safety barrier on the hill dividing directions of travel

Roundabout questions

Adding lanes will not increase traffic capacity

Survey is hard to find on website

During rush hour its really hard to get in and out of parking lots once you get off meridian - wall to wall traffic

Be attractive but cost effective. Minimize long term maintenance and related expense.

Keep the feel of a residential community. Do not end up like Aurora Avenue

Combine bike lanes with sidewalk. Keep bikes off the road. Bike lanes on the road are dangerous. No one uses sidewalks so let the bikes go there. Ditch streetlights..those add visual clutter. Do not involve the State authorities as they are bureaucrats and have no understanding of the simple needs citizens of Edgewood have. Edgewood has

Should we be including any wildlife passthroughs?

Connect the walking trail on 36th to the Edgewood park and meridian for improved local pedestrian access. It is a safety hazard for people walking in the road to access the park.

I notice the Planting step in Segment one. PLEASE do not do what was done in the phase north of 24th street. The area is poorly landscaped in the median to the point of non existence. Plans trees and landscaping as you have in other cities. Then provide turn out to allow for U-Turns to businesses like you see in Federal Way, Bellevue, Kirkland,

Add sidewalks

There already is a center lane for turning left across traffic on Meridian. Reduce the speed on Meridian to 30 MPH. Align the end of school zone sign with the flashing yellow lights on the east end of school on 24th for Northwood Elementary. Regarding A & B-Are facilities the same as a lane? Put pedestrian and bike lanes completely away from
Some improvements - such as roundabouts - tend to hinder traffic rather than improve it.

I've lived in Milton for over 20 years and now Edgewood for over 30 years. I feel it's too late to alter Meridian due to the fact you allowed apartments to build on the lot line, now you have no land to add much. I hope the next steps are thought out much better and into the future. David R. Bailey

Explicitly address SAFETY in questions for this portion. During heavy traffic periods, for instance, ROUNDABOUTS (like on 32nd and Meridian) would be MUCH safer as motorists frequently misjudge the speed of oncoming traffic and it's scary to watch near misses on a daily basis (which wouldn't be helped significantly without roundabouts). ALSO speeding motorists (drag racing and motorcycles going over 80 miles per hour we have witnessed recently, even at the intersection of 24th and Meridian just as the light is turning red. OUCH!!! We would have been "T-Boned" on these occasions if we hadn't literally waited at the green light before proceeding. Obviously traffic cams to fine these
Edgewood is not doing much for shops and eating. Just more apartments in the business area. We lost a grocery store but are growing a population.

Efficient movement of cars. Not sure bikes need their own lanes. They can use sidewalks.

The top priority is siewalk in the first segment. The other top priority is a partition of some variety on the meridian hill

Barriers between north and south bound lanes in Meridian Hill, very dangerous/deadly. Why has this not been

The intersection turning onto/ off Chrisella RD E needs improvement.

bike lanes separate from the road

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

There is no sidewalk to ride a bike or walk along 24th-36th which I find the most important part. Getting down the hill is the problem. Not getting through town.

The traffic is relentless on Meridian and backs up both morning and night going both ways. I am for widening Meridian as long as it does not venture near private drives or roads in residential areas.

Don't waste money on fancy landscaping that never gets maintained and turns into an eye sore.

The speed at which vehicles travel between 8th st. and 36th must be reduced. Traffic circles will help but is not sufficient. Explore with DOT the possibility of reducing the speed limit by 5MPH between 8th and 36th. The parallel road network is not mentioned in the survey but is essential to managing the flow of traffic on Meridian. An effort needs to be made to change driver psychology when mothering through Edgewood on Meridian. When driving through Fircrest, Fife or University Place, drivers know "they had better slow down or get a ticket". That same mentality needed to be installed in transiting Meridian in Edgewood. Maybe signage at 36th and 8th street letting motorists know traffic minimize left turn options

Quit building apartment complexes everywhere

I think the scope should be two parts. Section 4 refers to 24th to Todd. Section 4 should have two criteria, 24th to 36th and 36th to Todd. My answers would change depending on section criteria structure.

increase signage for cross streets

More speed Traps there is way too many people speeding down meridian we'd like to see a slower Speed limit.

yes

People should not be able to turn left out of Safeway parking lot and we need to find a way to make sure they stop before pulling out into traffic. It is so dangerous! I have had a couple people come out of the parking lot without stopping and made left right in front of me that caused me to slam on the brakes. Fortunately, there was not an accident, but I am concerned there will be an accident. I would like people to be able to exit the parking lot to Queens

Just like the Safe Streets to Schools program I believe the city of Edgewood should develop Safe Streets to Parks and Trails. A good start would be a sidewalk extended from 24th to Edgewood Community Park (36th & Meridian) on the north side of the roadway. The progress should be measured, as the saying goes, "What gets measured gets

Making it safer is #1

Stop building apartments!!!!!! This town has a small town feel. Don't turn us into Federal Way!

How about leaving it alone. Doesn't seem to be broken, so don't fix it.

Roundabouts are frustrating and take up more land. Traffic lights that run in sync to each other. Should not be a merge lane, as people don't merge properly. If a lane has to end, make it a turn only lane at the previous intersection. No left turns without a light. Make u-turns at the next light to make up for the no left turn.

Serve the people who live here. Commuter traffic should be guided to minimize disruption to edgewood residents. For instance, i will go shopping to another town because traffic is too heavy for shopping in my own.

If bus shelters are created they become sleeping places for homeless and drug use, and litter magnets. Please (!) do not allow benches there which encourage illicit activity - opt for single small stools/chairs

Avoiding impacts to existing homes/businesses (such as taking land via eminent domain)

Sidewalks down the hill of 36th. Tons of families walk to the park from there and the hill is very dangerous to walks.

Sidewalks from 36th all the way to todd street.

Increased speed limit monitoring

Addition sidewalks on connection side streets.

36th has a park on Meridian and Elementary school to West, natural student traffic - NO SIDEWALK W of 110th

Work more closely with local and state DOTs to improve through put at the south end of proposed corridor.

All his doesn't work if you don't fix the railroad crossing bridge t the same time just a waist of money if not done as

I feel with all the new apartment complexes and housing being built in this area, we need better and bigger roads to

No turnabouts

NO traffic circles! More speed signs

Traffic lights at 32nd no roundabouts

Traffic light installed at Meridian and 32nd Street E. Since park opened trying to make a left turn on Meridian is

Pease do not make us into SouthHill. Do not add roundabouts or any more traffic lights.

Methods to control speed limit. There are too many vehicles ignoring the posted speed limit, going way to fast. This is safety issue for walking and bike paths along with cross walks .

Regarding street lighting, please adopt downward shaded lights that will decrease light pollution. Let us see the night sky! <https://www.archdaily.com/977131/how-to-reduce-light-pollution-with-street-light-design>

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

Stop developing until you get the infrastructure ready for more population. It shouldn't take people 30 minutes to go 3

This survey is a waste of tax money. A waste of time and money as the city will not listen anyway.

Better street lighting

If we are making it four lanes there needs to be a traffic light at 32nd and Meridian. There have been many accidents here and I live in the neighborhood. It's hard to turn left .

Yes, on "g" above, no roundabouts. Traffic signals or signs. Fife's attempt is dismal at best.

Add a light at 32nd St.

Something needs to be done about the left turn lane at 36th and Meridian. No one knows how to properly turn from Segment 2 should have some kind of barrier between the uphill and downhill lanes. To me this is more important than A meridian to prevent or deter head on collisions as you go down the hill toward Todd.

This corridor has needed upgrades for a number of years. The long term plans being put on the shelf by WSDOT has not helped this roadway for safety or mobility. Of course if you stop at 36th then all the traffic must merge to one lane down to Puyallup. That is problematic as has been noted in the past. Choke points are not helpful and cause safety

While doing improvements DO NOT BLOCK ACCESS TO MY BUSINESS OFF MERIDAN AND 31ST!!!!!!

No to roundabouts.

There are very few bikers here. Mostly walkers. Improve sidewalks but do not install bike lanes that will not be used.

Roundabouts are a mess during peak traffic hours. Side streets trying to get onto meridian will just sit there.

Consider that adding sidewalks in Segment 2 will increase homeless traffic into Edgewood from the Puyallup valley and jeopardize community safety. Added shelters and benches will also create opportunity for this as well.

NO ROUNDABOUTS

Make it attractive and not just strip mall or single business sprawl

The intersection at meridian, and 36th and Chrisella needs to be addressed. It's an accident waiting to happen.

Importance of increase speed limit through the corridor; very important.

Reducing traffic through the corridor

All of this is silly without businesses to go to. Please entice businesses to come to Edgewood. No roundabouts.

The focus of Meridian is to move traffic effectively. If biking increases, so will accidents. Roundabouts cause accidents. Consider who the population is in Edgewood...mostly older people, and more recently younger families with children. I don't see many people walking or riding bikes along the Meridian corridor, so why focus there ? Side streets to and from Meridian need to all have sidewalks and better lighting. The Town Center plan sounds good...but do we have the population to sustain businesses? The community has been asking for an additional grocery store...Safeway has raised their prices...because they have no competition. Parking lots are not safe. Walk through Rite Aid and Walgreens...hardly anyone shops there. Instead of making Edgewood "pretty" focus more on making it safe. And for heaven's sake please do not put a bike trail or pedestrian walkway along south Meridian Hill...that is

Stop building businesses right AT the roadside. It adds to the crowding feeling and takes away from the spacious neighborly feeling that we see along the city hall block. Green space is needed.

More accountability to stop red light runners at 36th and Meridian. Someone is going to get hurt or worse.

More law enforcement emphasis and presence.

Make improvements to flow with a design that helps limit speeding (example the roundabout)

Meridian currently has a bottleneck where it reduces to one lane. This is greatly hinders traffic.

Add lane southbound.

no roundabouts

STOP building apartments and allowing houses to be constructed on lots less than half acre!!!!!! We're losing the home town atmosphere we moved into Edgewood for in the first place. All people living here like our privacy and

Frankly, I'm shocked at the number of apartments being build along Meridian considering how lacking the infrastructure is in the area. At this point I don't leave my house after 3:00 as Meridian is a parking lot at that time of

Do not add roundabouts

Timing northbound in the am and southbound in the pm. During construction it will be much worse as it has been with every construction project on Meridian . As a daily user approaching Meridian from Chrisella at 36th how can you support me with alternatives as Chrisella is also in need? Is Chrisella being addressed?

Rethinking some of the fence lines along the sidewalks that block the view of pedestrians by cars. More crossing signals along Meridian where there are turn ins.

Get sidewalks now on at least one side of the road down to the park.

If the city approves many more large multi-family units it will put pace the improvements these changes will allow for

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

I think more than 2 lanes each way will be really important. So much traffic drives this road as a major road to puyallup. If we are adding over 700 apartments and retail space, where is all of this traffic going to go? Also will the budget for schools and services like police and fire and ambulance be increased to serve such a growing population?

Keeping homeless out

Don't call sidewalks and bike lane facilities!

Minimize the possibility of people using the road to get around other congested areas to preserve the usability of the

If lights are added have them timed so they do not impede the flow of traffic

The big question about traffic on Meridian? What will happen when the Puyallup spur opens? Commuter traffic should decrease, perhaps significantly.

no roundabouts!

Need to stop allowing PD to block private driveways during traffic stops

I would not consider lighting an aesthetic. Lighting is safety. Don't put in fancy medians that you can't maintain. (That seems to be an Edgewood thing.) SAFETY is the most important improvement.

please put sidewalks around the park for safety. i see many people, including children, crossing the street to get to the park. it's just a matter of time before a tragedy happens.

Do not overfill the corridor with multi-family apartments/condos with very little parking for those residents like Tacoma did. Maintain the existing rural charm with charming building design (not modern). Economic Development should offer better incentives for bringing new, aspiring businesses.

The problem drivers are the ones passing through from Puyallup, not the residents. Don't over-develop, then gum up the works for locals by turning us into another South Hill.

Safe ways to cross the street near bus stops and the park.

We need a solid green arrow at the intersection of 36th/Meridian.

Something to control the speed situation to limit the amount of accidents on Meridian Hill

All new buildings should be set back at least 30 feet from Meridian.

No one wants the Town Center. Keep our town small, listen to the citizens of Edgewood, pull your head out of the sand and listen. Stop apartment sprawl, keep our town rural!

Just stop destroying this quaint city. Your turning it into something Edgewood residents do not want.

Safe bike and pedestrian traffic requires physical separation. It is of the highest importance that the city not just paint bike lanes and call it good enough.

Bold, region-leading design choices that take Edgewood into the future are needed.

Increasing lanes is important for long term car movement. I'd prefer to see two lanes each way down the hill, with bike and sidewalks from 24th to 36th to help people get to the new park.

Help so down traffic I'm always doing 35 and it feels like I'm sitting still and everyone else just flies by

Give the main road sr161 lights more priority. And restore the 40 mph speed limit

Avoid any kind of round a-bouts on meridian.

Don't landscape it if you can't prioritize keeping up with it like the rest of Meridian through Edgewood

Wait for 167 and I5 projects to be completed so valley people and commerce will stay in the valley and not use the hill as a bypass making life worse for hill people. Re-evaluate after that.

NO ROUNDABOUTS

1) Saving lives and injury by improving the primary known safety issues.

2) Should a barrier be installed between the down going and upgoing lanes to further ensure safety.

2) How important do you feel about walking or biking top to bottom should this corridor be improved.

3) How often would you use this improved corridor for walking and/or biking.

4) Would you prefer vehicular safety measures are improved over pedestrian/biking.

No roundabouts. People can't drive in them.

Clean up the business that is along meridian. No more car lots, run down strip malls, weird storage lots without screens to block view from road, incentivize land owners that are holding abandoned property to develop.

The portion of Meridian going down the hill is dangerous. Accidents are abundant cause by drivers going too fast, swerving outside their lane, turning across Meridian, and the lack of proper draining results in icy, oily roads with streams crisscrossing the road at the turns. Option 3, eliminate the second lane going north to provide a buffer between lanes and force drivers to slow down in a single file option. Then they wouldn't be racing to merge at the top

5. Are there criteria not listed above in question #4 that you feel would be important to include to help improve Meridian Avenue?

The chokepoint NB at 36th when it goes to a single lane and then back up to a double lane again is a big issue. Trying to make a left turn at 36 or 32 is pretty uncomfortable with lots of impatient drivers. Adding nicer bus stop areas will look a lot nicer, but it will need its own budget line item for repairs and maintenance and policing. Edgewood will need to remain vigilant or else the bus stop shelters will become like Federal Way's. Adding more trees and

Please, don't add bike lanes. This is not a bike friendly area and it will just cause more accidents.

I'm looking forward to the improvements. The road being widened so there will be less racing thru that area.

leveraging the parallel road network

No roundabouts

Do NOT add any roundabouts

Minimize the use of roundabouts.

Turning right out of the grocery outlet area onto Meridian is sketchy. The black railing really obstructs your view of oncoming traffic and should be removed. I believe it is only decorative and isn't needed.

No roundabouts, please!

No

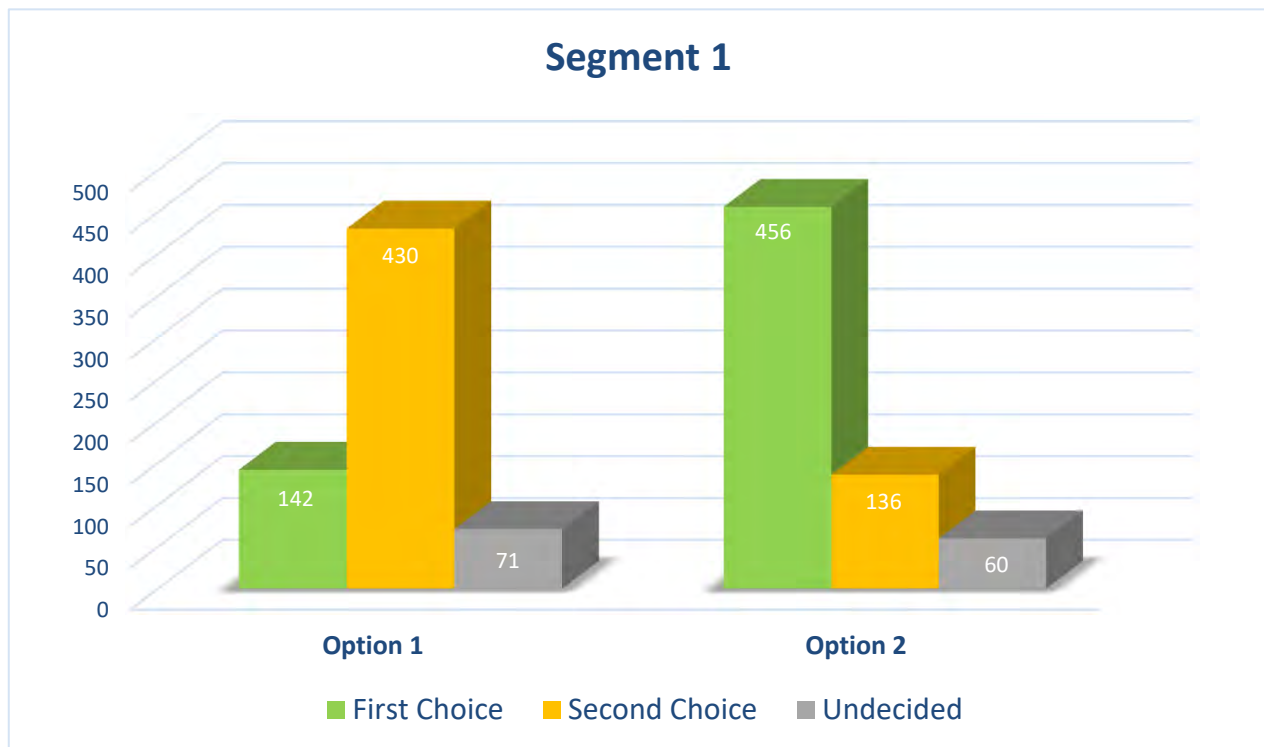
No

Please seek expert advice. The city planners are young and inexperienced.

None noted.

6. Please rank the preliminary options for Segment 1 (24th to 36th)

	Option 1	Option 2
Undecided	71	60
First Choice	142	456
Second Choice	430	136



6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
	First Choice	Bicyclists are safer when further away from traffic.	
Undecided	First Choice	Drivers are crazy on Meridian and bikes and pedestrians need to be separated from vehicular traffic.	Do not extend any multimodal past the 36th street intersection.
Second Choice	First Choice	The drivers are crazy on meridian. Give buffer to create safety for the bikers and pedestrians.	
Second Choice	First Choice	Stop putting bike lanes 4 feet from 5,000 pound vehicles! Riding a bike right next to traffic is terrifying and will absolutely not let my children on option A. It looks just like the insane bike likes I drive along in Seattle. If the choice is available, I do not see any reason to stick bicycles on the road feet away from traffic.	There really isn't enough biking or walking traffic along Meridian to justify the cost of separate lanes, figure out a way to combine them.
Second Choice	First Choice	Separate drivers from bikers/pedestrians from vehicular traffic with buffer. Safer option by far.	How many cars travel on meridian through Edgewood everyday? And How many bicycles a day? Stop prioritizing .001% of commuters and deal with the constant gridlock local residents deal with on a daily basis. We cannot go into puyallup between 4:30-6:30 because it takes 30 minutes to go 1 mile. Roads are for driving. Roads are not for walking or bicycling. Keep pedestrians on a sidewalk. Keep the bike lane off the road.
Second Choice	First Choice	I think bikes can be up on the sidewalk, instead of on the road, considering that this is a state highway.	
Second Choice	First Choice	Safety from oncoming traffic by vegetation barrier	
Second Choice	First Choice		
Second Choice	First Choice	Keep the bicycle traffic away from the vehicle traffic.	
Undecided	First Choice		
	First Choice		
Second Choice	First Choice	I think cyclists would be safer buffered from auto/truck traffic in a buffered lane.	
Second Choice	First Choice	The bikes should be separated from the cars so kids can ride bikes with their parents and to the new park at 36th	
Second Choice	First Choice	Bicycles and walking is separated from cars so kids can ride bikes beside parents not near cars to the park.	
Second Choice	First Choice		
Second Choice	First Choice	It seems safer to buffer bikes & pedestrians	
Second Choice	First Choice	Option B is safer than option A.	Would there be openings in planting strip at each side street (ex 29th where I live), for left turns from Meridian and onto Meridian? Also, how would drivers access businesses on the left when traveling through that section? Or would left turn pockets allow U-turns?
Second Choice	First Choice	Option B is better because it is safer to keep the bikers away from the vehicles	
Second Choice	First Choice		Left turn lanes are important.
Second Choice	First Choice		My greatest concern is the changes that the planting strip will present to local businesses and the decreased ability to take a left turn from a center lane. Also, planting strips present a great difficulty to emergency vehicles especially during high traffic periods whereas a center lane can be used by Fire and Police to pass stopped traffic and reroute traffic if lanes become blocked by accidents.
Second Choice	First Choice	People on bicycles always clog up traffic, and never use the bike lanes.	
Second Choice	First Choice	Safer for bikers	
Second Choice	First Choice	Lessens the widening of the streets	Add aesthetically pleasing foliage and maintain it. Too often municipalities develop nice roads and then let the plants grow out of control. Looks ghetto.
Second Choice	First Choice	Walking and biking can be shared	Doggy poop bag stations
Second Choice	First Choice	Seems safer for kids / pedestrians/ disabled.	
Second Choice	First Choice		
	First Choice	it is safer and more attractive for our area	
Second Choice	First Choice	It is safer to have a buffer between the cars and bikes/walkers versus having bikes close to cars	
Second Choice	First Choice		You've driven this road, let's keep the 2 lanes open and get rid of the merging into 1 lane.
Second Choice	First Choice	Option B is more safe.	
Second Choice	First Choice	Bikers and pedestrians already often share sidewalks without issue already. And you don't often hear about bikers hitting pedestrians. However you do hear about bikers and pedestrians killed by cars. I think having a visual barrier between motorized vehicles and non-motorized will create a safer environment for everyone.	Allow the bike and pedestrian lanes on the back arterial that parallels meridian
Second Choice	First Choice	I feel that creating a barrier between non-motorized and vehicles is an important safety aspect. Bicyclists and pedestrians often share sidewalks anyways. While I don't often hear about pedestrians hit by bikes I do hear about bicyclists hit and killed by cars.	
Second Choice	First Choice	Giving bikers safer space	
Second Choice	First Choice	I agree with the separation of nonmotorized user's.	
Second Choice	First Choice	I don't think bike lanes are that important. It is better to keep them of the actual street and closer to the sidewalk	
Second Choice	First Choice	I like the bike lane being farther from the road, especially on Meridian.	there needs to be crosswalks to travel east and west of Meridian.
Undecided	First Choice	trees protect the riders	
Second Choice	First Choice	All non motorized traffic, bicycles and pedestrians on a state highway should be buffered	
Undecided	First Choice	Should be same design as B but single lanes, need to slow and reduce traffic speeds and volume. Adding more lanes will only make it worse.	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	I think having a buffer between the non-car lanes would just get trampled on. Most bike/walk lanes in the area don't have a buffer.	
Second Choice	First Choice	I like the bike lane separated from the driving lanes	
First Choice	First Choice	Bikes are vehicles in their own right, and should be further from the sidewalk.	
Second Choice	First Choice	option B looks safer	
Second Choice	First Choice	Keeping a buffer for bicycles and pedestrians would be the safest option for all.	
Second Choice	First Choice		
Second Choice	First Choice	As a bicyclist I prefer the buffer from traffic.	Clearly section 2 option B
Second Choice	First Choice	Moving the bike lane inside the landscape buffer creates a safer lane of travel for bicyclists. With the volume of traffic that is on Meridian in peak hours, bicyclists are a future part of the commute and need the safety barriers.	
Second Choice	First Choice	Keep bikes and Pax away from autos	
Second Choice	First Choice	I like having trees as an added barrier between cars and bicycle traffic.	
Second Choice	First Choice	Option B is more protected from traffic.	A center turn lane must be maintained to 36th Street. You can't cut off access to the other side of the street. A turn would be needed at each end of the section if there is no center lane.
Second Choice	First Choice	Thank you I need to look up the age and diversity as a community bicycle lane is not all that important and rural well lit roads and good sidewalks are important	
Second Choice	First Choice	Greater safety for bicycles	No roundabouts added PLEASE
Second Choice	First Choice	Giving bikes space further away from vehicle traffic will be safer for people riding bikes	
Second Choice	First Choice	Cars drive too fast on meridian. I currently ride my bike on existing sidewalks, due to the safety of plantings' visual barriers.	
Second Choice	First Choice	Option B is safer for pedestrians and non motorized vehicles. Separates vehicles from non vehicles	
Second Choice	First Choice	Keep multi-use non-motorized zones physically separated from vehicle lanes for safety reasons	The goal should be to reduce traffic volume and speeds, adding more lanes only increases volume and speeds making it more dangerous it's bad right now with folks driving ,50+ mph when traffic is light. Adding more lanes in going to get people killed.
Second Choice	First Choice	Biking with children and would want barrier between us and traffic	
Second Choice	First Choice		Creating a uniform look for the business fronts and facades would help to improve the feeling of an Edgewood having a personality and town center.
Second Choice	First Choice		As in the past, when we expressed our opinions, in the end it didn't matter as WSDOT did what they wanted -- I do hope that expressing our opinions helps this time!
Undecided	First Choice	I don't understand the current mind set of traffic engineers who think that co-mingling bicycles and cars is a good or safe option. For example Federal Way, please don't do it.	
Second Choice	First Choice	I chose option B due to the fact of no multi use of non motorized zones are separated.	widening the lanes to 2 each way is #1 priority.
Second Choice	First Choice	Better option for traffic flow	
Second Choice	First Choice		
Second Choice	First Choice	Hazards to bikes are worse when exposed to an inattentive vehicle vs pedestrian.	Benches placed along the corridor.
Second Choice	First Choice	Safest set up for pedestrians and bicyclists.	city maintenance costs would be millions
Second Choice	First Choice	The separation of vehicles, pedestrians and bicyclists is important to me.	Planning needs to include future budgetary impacts of the planting strips down the middle of the roadway and along the sides of the road. This will require additional resources to address the maintenance needs. To me, there is nothing worse than seeing large weeds standing two feet tall in the middle and on the sides of our main roads.
Second Choice	First Choice	Want bike lane separate from street to minimize risk	
Second Choice	First Choice	Biker's may not be using the bike lane so being able to walk in the lane is beneficial. Also like that the bike lane has the tree area to separate it from the cars as drivers' are becoming more reckless.	
Second Choice	First Choice	Increasing safety of both walkers and bike riders	
Second Choice	First Choice	Safer for bicycle traffic to not be right on the road.	Less traffic encouraged
	First Choice		
Second Choice	First Choice	I would like to see the bike lane separated from traffic lanes.	Hopefully there would be a two way turn lane down the center instead of a planting strip.
Second Choice	First Choice	Option B separates the bike lane from car traffic, which would be safer for cyclists and motorists alike.	Until bicycles are paying tabs like motor vehicles I don't think we should spend a lot of money on bike lanes
Undecided	First Choice	The road is dangerous now need to separate vehicles and non motorized travel	
Second Choice	First Choice		
Second Choice	First Choice		Uncontrolled crosswalks need spotlights or overhead light for better visibility. Existing is too dark, even though there are flashing signs; and need barriers & sidewalks on street sides of park at 36th & Meridian. Unprotected footpath uncomfortably close to busy street.
Second Choice	First Choice	Keep all bike traffic away from car traffic for safety of all.	
Second Choice	First Choice	Why do we need a planting strip. Do we need a turn lane.	
Second Choice	First Choice		

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	1. Safety for bicyclers being further from the traffic. 2. Wider space for pedestrians to use when non motorized vehicles are not in the bike lane. Allows more space for families, strollers, pet walking etc. 3. More aesthetically pleasing to have the wider look of the sidewalk/Biking area next to each other	
Second Choice	First Choice		
	First Choice	Bike lane next to sidewalk	
Second Choice	First Choice		
Second Choice	First Choice	Protect the bikers from the drivers!	
Second Choice	First Choice		
Second Choice	First Choice	Keep the bikes away from traffic	
Second Choice	First Choice	More pleasing and safe	
Second Choice	First Choice	I like the idea of having pedestrians and bikes, physically, separated from cars	
Second Choice	First Choice	Protected bike lanes are safer	Placing cameras for speeding located at 24th street light.
Second Choice	First Choice	Safer for bikers to ride in a separate safe lane. Plus when there aren't bikes gives more space for peds	must be barrier to separate pedestrian from bike lane
Second Choice	First Choice	I don't feel that a bike lane is needed at all. If it is going to be included, it is safer for the bike rider to be separated from the traffic. I don't like the planting strip down the center at all. From other road projects that have included this, the growing area is never tended regularly and it gets overgrown and messy. Second, it is a place to collect trash and looks bad very quickly. The planting strip idea also makes it hard for there to be a left turn lane for vehicles to access the areas on the other side of the street.	
Second Choice	First Choice	Better bike safety to have it next to pedestrian sidewalks rather than shared with the roadways	
Second Choice	First Choice	Pedestrians as far away from cars as possible.	
Undecided	First Choice		Lighting
Second Choice	First Choice	Keeping bikers with pedestrians is safer than putting them in traffic with vehicles where they disobey traffic laws.	Please refer to my response to enumerated item "5" above.
Second Choice	First Choice	It seems safer for cyclists to have a larger buffer between themselves and cars, especially when so many cars speed through the corridor.	Watching Edgewood's growth over the last 35 years I've become concerned about the lack of sidewalks and bike lanes. Sharing the roads between vehicles, pedestrians and bicyclists is putting all of us at risk. Lowering speed limits is not the answer, segregating vehicles, pedestrians and bicyclists is. The sidewalks that are required for the new developments is only a partial solution.
Second Choice	First Choice	Safer for both pedestrians and people who ride bicycles.	
Second Choice	First Choice	B looks safer.	
Second Choice	First Choice	Biker Safety	
Second Choice	First Choice	Bike lanes are just better if they can be off the street or seperated from cars. Cars and bicycles just don't mix at all.	N/A
Second Choice	First Choice		
Second Choice	First Choice	Traffic safety. Kids ride bikes. I do not want my kids riding on the "highway". Area should include motorized senior/disabled pedestrian transport and skateboards with sidewalk for foot traffic, strollers, wheel chairs	Na
Second Choice	First Choice	Option B seems to be the safest route	
Second Choice	First Choice	Bikes should stay separated from the vehicle traffic. People speed currently	
	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		Leave Edgewood alone. You will only make it worse.
Second Choice	First Choice		Provide Greenbelt routes away from main corridor . I have little faith anything proposed will address issues cause by current 4 lane road. I'd rather like to see Greenbelt pathways that are a block or more away from this corridor.
Second Choice	First Choice		
First Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	For the safety of the pedestrians and bike riders	
Undecided	First Choice		
Second Choice	First Choice	Separate	
Second Choice	First Choice	Get bikes and pedestrians away from the street	
Second Choice	First Choice	I think it's important to have a physical buffer to protect bikes against cars. Without it, we may see more bike use on Meridian, but also more car/bike crashes.	
Undecided	First Choice	Just look at the design! Common sense says to keep pedestrians and bicyclists away from a 2 ton moving vehicle is way safer than the other option!	
Second Choice	First Choice	I don't think we need a bike lane. Bicyclist tend to think they're cars anyway and they drive in vehicle lanes even when they have bike lanes available. Shaw road created gigantic sidewalks and yet bicyclist still choose to ride in the lanes of traffic with cars as opposed to using the perfectly adequate sidewalks. I think bike lanes are a waste of resources, and space.	I'd love to see fruit trees planted in the buffer zone and native plants showcased in the planting strip.
Second Choice	First Choice	The seperated sidewalk/bike lane is safest. People drive way too fast on Meridian and the seperation is necessary.	
Second Choice	First Choice	Keeping the bicyclists further away from traffic	Roundabout at 36th
Second Choice	First Choice	Pedestrians and bikes should be as far away from traffic as possible. Option A puts bikes too close to the traffic and can cause wrecks.	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	I hate bicycles next to me in the road.	
Second Choice	First Choice	It's a busy section of road, so to me it makes sense to have a landscape buffer between vehicles and bicycles.	so much for the rural feel we were promised
Second Choice	First Choice		
Second Choice	First Choice	I prefer the plantings to be a barrier between vehicles and pedestrians/bikers	
Second Choice	First Choice		
	First Choice	Since there will be limited space when you increase to four lanes, I don't see the feasibility of making a buffered lane for bicycles. I personally don't think people should be riding bicycles on Meridan as it is so congested.	Pet poop bag dispensers and trash bins
Second Choice	First Choice		
Second Choice	First Choice		
	First Choice		
Second Choice	First Choice	For the safety of bicycle riders and or other non-motorized users , not having them next to the street is a safer option	
Second Choice	First Choice	I don't like to bike or have bikes next to the roadway.	
Second Choice	First Choice		Will the planting strips be kept up? The current planting strips look like crap.
Second Choice	First Choice		
Second Choice	First Choice	Don't need bike lanes in my opinion, they take up valuable road space and are rarely used. And where is there to ride a bike to in Edgewood anyway? That said, I like the option that keeps the bikes as far away from actual traffic as possible. Bikers in this state think they own the road, so keeping them as far away from real traffic as possible is best for everyone's safety.	We really need good, signaled crosswalks.
First Choice	First Choice	It's the perfect layout for all traffic, pedestrians and bikers	Roundabouts appear to cause more accidents, especially during inclement weather.
Second Choice	First Choice	I think it is safer for bicyclist to be separate from traffic!	Discourage so many vehicles just cutting through Edgewood. Eliminate bottleneck at SR 167.
Second Choice	First Choice		
Second Choice	First Choice	Years of working construction and being on roadsand a cyclist I prefer the bike lane further separated from traffic lane.	
Second Choice	First Choice	Separation of pedestrian and bike lanes improves everyone's safety.	
Second Choice	First Choice	Bikes further away from a state highway seems safer for cyclists and less hectic for drivers.	
Undecided	First Choice		Trees. Sync lights at crossing areas with turning traffic. Red no turn for limited time with crossing button pushed
Second Choice	First Choice		
Second Choice	First Choice	Tired of fighting bikes to get home. Love for it to be bike friendly but most people on bikes don't watch for cars	
Second Choice	First Choice		
Second Choice	First Choice	Meridan is a dangerous road as is any 5 lane road. Any people including bicyclists should be separated.	
Second Choice	First Choice	Safer for bikes to be away from traffic	
Second Choice	First Choice	Safer for bikers	
Second Choice	First Choice	Safer for biker and walkers.	
	First Choice	Best of the two options. But don't really need the walk and bike lanes.	
Second Choice	First Choice	Bikes have no business in traffic. Keep separated for the safety of all.	
Second Choice	First Choice	Bikes need to be out of the traffic lanes.	
Second Choice	First Choice	I'd feel much safer walking/biking with my family if the sidewalk was separated from the cars a bit	
Second Choice	First Choice	This is not an area that needs bike lanes. It's a state highway, not a neighborhood.	
Second Choice	First Choice		
Second Choice	First Choice	The added buffer from cars on meridian by the trees, bushes, etc is better as a bike rider. This is similar to Alki beach in West Seattle. As long as the bike is labeled such, there wouldn't be an issue.	
Second Choice	First Choice	Bike lanes should be separated from cars.	
Second Choice	First Choice	The physical separation for non motorized use seems like a safer option.	
Second Choice	First Choice	Drivers will hit and kill cyclist if there is not a physical barrier to separate cars from cyclists.	
Second Choice	First Choice	Meridian feels like too big of a street and too auto centric to have bike lanes adjacent to the vehicular lane. Physical separation feels safer on this roadway classification.	
Second Choice	First Choice		Pedestrian cross walk and sidewalk access to community park
Second Choice	First Choice	Biking and pedestrians away from traffic is always safer. Cars kill people.	
Second Choice	First Choice	It seems safer for bikers and walkers along Meridian.	
Second Choice	First Choice	Sidewalk and Bike Lane need physical separation from vehicle traffic given the heavy traffic on Meridian	Traffic noise reduction.
Second Choice	First Choice		
	First Choice		Reduce the speed and enforce the traffic laws, ie speeding and aggressive driving.
Second Choice	First Choice	Option B will result in people choosing to bike the Meridian corridor. Option A will fail to adequately achieve any goal.	
Second Choice	First Choice		two lanes each direction with a turn lane in the middle would be ideal. The grassy area in the middle will soon become unkept and ugly. Use Shaw Rd in Puyallup as your example, they redid that area, and it needed turning lanes all the way down to help with traffic flow, instead they stuck these planting islands, that look like crap now because they're not weeded, and if a car breaks down in one of the lanes, they're unable to move to a turning lane if they broke down next to the planting island. It's dumb. If you truly want to aid traffic congestion, two lanes both ways with a turning lane down the middle seems the most practical.

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	Safety for cyclists	
Second Choice	First Choice	It seems safer to separate the bikers from the vehicles and traffic as much as possible.	
Second Choice	First Choice	Safer for kids and others to separate bike lane from road	
Second Choice	First Choice		
Second Choice	First Choice	I like bike lanes off the road	Do not put a hotel, motel or anymore appartments, gas stations, coffee shops in Edgewood or Milton. We need another grocery store and better restraunts.
Second Choice	First Choice	Bike lanes don't even seem necessary for this area so it seems like they would be better utilized near the pedestrian area.	
Second Choice	First Choice	It would make more sense and seem safer to have people on bikes farther away from car traffic. I also have 4 kids so them using a bike lane that is seperated from car traffic would seem to be safer for them.	
Second Choice	First Choice	Keep pedestrians and bikes out of traffic.	Roundabouts over traffic signals. Traffic always seems to move better (as long as it's constructed nothing like the new one on 99). Would really like to see one at Meridian and 32nd.
Second Choice	First Choice	Safety for bikes and pedestrians!	
Second Choice	First Choice	Keep the bikes and people separated from the traffic. The traffic speeds along and a green belt must insure protection of the bikes and people from speeding traffic. Also, allow the bikes to use the sidewalk. This saves money and no one walks on the sidewalks anyway. Make the sidewalk MULTI-PURPOSE; i.e. people and bikes.	
Second Choice	First Choice		
Second Choice	First Choice	Physical separation is preferable to a buffer, for cyclists and pedestrians.	
Second Choice	First Choice	For familes and students riding bikes away from the road provides extra safety.	
Second Choice	First Choice	It's safer for bikers and pedestrians to be separated from traffic. As annoying as it will be when rude bikers act like the sidewalk should also be theirs, I'd rather they are as safe as possible.	
Second Choice	First Choice	People drive like crazy on that road and for safety, I like the separation and grouping of pedestrians and bike lane. I also think that lining the road with trees will soften the landscape making it more appealing. Look to Woodenville for example.	
Second Choice	First Choice	Option B appears to be safer for bicyclists.	I'm curious what the restrictions will be for the bike lanes now that I see motorized bikes, scooters etc? Will it be enforceable ticketing by our police? Sidewalk areas should have containers with bags for collecting pet waste. Planted areas should be extremely low maintenance in order to avoid extensive maintenance costs.
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	Having a buffer between traffic and cyclists is a plus.	
Second Choice	First Choice	I like the idea of a buffer between cars and pedestrians or people biking.	
Second Choice	First Choice	Having the planting strip between the car lane and the bike lane reduces the risk of distractions for the drivers. We also have a lot of children in the area and with the park near the southern end of segment 1, having a buffer between where the kids will be riding their bikes and the vehicle traffic feels like a better choice.	Provide left turn lane.
Second Choice	First Choice	Bike lanes should have a barrier from traffic	
Second Choice	First Choice	I appreciate that the bike lanes are more protected from traffic - it provides a safer experience for both cyclists and less distraction to drivers. It also allows for the street to look more aesthetically pleasing because if trees are planted in the areas physically separating the road from the non-motorized zone, the overall road space will appear narrower and less gray (i.e. areas of asphalt/concrete will be more broken up by greenery).	Don't see why we need a bike lane for a short stretch. I thought that was what the Urban Trail if for.
Second Choice	First Choice		Eliminate planting strip. It's a waste of money.
Second Choice	First Choice	Option B moves the bike lane away from traffic	
Second Choice	First Choice	Bikes will drive on the street anyhow vs the sidewalk	
	First Choice	Bike and pedestrian lane are separated form traffic, but not enough.	
Second Choice	First Choice	It's safer to have a buffer between cars and pedestrians	Remove the bike lanes. Create incentives for decent retail to come to Edgewood.
Second Choice	First Choice	It appears to use less space.	None
Second Choice	First Choice	option b keeps bike out of, or away from traffic	
Second Choice	First Choice	Bike lanes should not be next to drive lanes	
Second Choice	First Choice	I support anything that improves the health and wellbeing of my neighborhood. Protect our walkers and bicyclists.	
Second Choice	First Choice	It seems that keeping bicyclist separate from motor traffic is the safer option.	Street lights on motion detectors so when there isn't traffic the lights dim or turn off.
Second Choice	First Choice		
Second Choice	First Choice	Safer for people on bikes	
Second Choice	First Choice	Must be a physical barrier between auto's and bikes.	
Second Choice	First Choice	I wasn't aware that this dangerous stretch of road had walkers or bike riders or bus stops	
Second Choice	First Choice	Bikes in the roadway will not be as safe as separate lanes	Would prefer not to have so much growth in a small town.
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	Safety, aesthetics, and bike lanes can double as walking lanes and give a better trail atmosphere.	Zero roundabouts. Minimum use of taking personal property. Combine the sidewalk and bicycle lane. Why does it need t be separate?
Second Choice	First Choice	Like the bike lane separated from traffic	
Second Choice	First Choice		

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice		
Second Choice	First Choice	Keeps bikers out of traffic. As well as makes bikers need to be more aware of turning Left (cross traffic)	
Second Choice	First Choice	separate bike lanes from the road keeps bikers safe from traffic	Keep this as a hwy thoroughfare. If you want bike lanes put them on residential roads off SR161.
Second Choice	First Choice	Separate the bikes from walkers.	
Second Choice	First Choice	Keep the traffic away from both bike and pedestrians.	
Second Choice	First Choice	Isn't it safer for bikes to be further from traffic?	
Second Choice	First Choice	Option B provides a greater margin of safety for bikers and pedestrians	Remove the bike lanes and add wider shoulders or a middle turn lane.
Second Choice	First Choice	Option B meets the design criteria that I felt are most important from question 4.	
	First Choice	To improve safety and traffic control.	Lots of green. Trees, bushes , etc. Definitely don't want the look of South Hill either.
Undecided	First Choice	Bike lanes next to vehicular traffic spells out disastrous results	
Second Choice	First Choice	Being largely converted to a residential area with a new park, let's keep the kids away from cars that speed. This section is poorly patrolled, and I see cars speeding egregiously daily.	
Second Choice	First Choice		If bike lane is separated from cars consider it only on one side of street to minimize impact.
Second Choice	First Choice	if few active bike riders, more capacity for walkers. Bike riders are farther from car traffic.	
Second Choice	First Choice	no third option	Please ensure access to public restrooms as walker and cyclists need access to public restrooms.
Second Choice	First Choice	Bike and foot traffic needs to have a barrier between them and cars, which is why option B is more appealing. I would feel safer traveling on this option.	Pocket plazas as intervals to provide seating, landscaping, lighting and pop up commercial opportunities such as food trucks.
Second Choice	First Choice		
Second Choice	First Choice	Best to have a buffer between vehicles and bikes / pedestrians	
Second Choice	First Choice		A center turn lane would be a safer more functional option
Second Choice	First Choice	Drivers can be inconsiderate to bike riders. I think it is much safer to have a little barrier between bike lane and where cars drive.	
Second Choice	First Choice	Option b appears to offer more protection and buffer for cyclists and pedestrians	
Second Choice	First Choice	Physically separated non-motorized lanes are safer for those users, especially with how busy that road can be. Physically separated can also be less distracting for drivers	
Second Choice	First Choice	I think the bike lanes should be farther from the cars	
Second Choice	First Choice	Safety	
Second Choice	First Choice		
Second Choice	First Choice	The way I am observing a number of people are driving concerns me (I no longer bike). I will leave it up to bicyclists who actually ride to help decide this one.	
Second Choice	First Choice	Option B provides better safety for bicyclists.	
Second Choice	First Choice		
Second Choice	First Choice	Bikers should be as safe as possible	
Second Choice	First Choice		
Second Choice	First Choice	Prefer no bike lanes. Never see cyclists on meridian.	
Second Choice	First Choice	Protected bike paths offer safer routes for cyclists and don't suffer from being a catch area for road debris. More accessibility and safer routes for pedestrians and cyclists is very important.	Seems that the cost of maintenance could be avoided by not having so much greenery and the trees eventually cause issues.
Second Choice	First Choice	I worry about 161 being a highway that non-Edgewood locals pass through for commuting and thinking about the safety of local bikers	
Undecided	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	Allow families to safely bicycle around town. I ont seemany commuter bicyclist around that would feel comfortable biking next to cars.	Make sure there is efficient street lights.
Second Choice	First Choice		
Second Choice	First Choice	Option B is safer for pedestrians and bicyclists as there is space between vehicles.	
Second Choice	First Choice	Seems safer	Be attractive but cost effective. Minimize long term maintenance and related expense.
Second Choice	First Choice	Option B is safer for bicycles.	
Second Choice	First Choice	getting bikes away from traffic. People get killed riding on roads with traffic.	Underground utilities
Second Choice	First Choice	B just made more sense.	Restrict the speed limit on the winding road going down to TODD
Second Choice	First Choice	The second option seems much safer. The first option looks more dangerous	
Second Choice	First Choice	I think it's safer for both cars and bikes to have a physical buffer. That allows car drivers to not be worried about suddenly having a bicyclist cross over into their lane. And helps bicyclists have a physical barrier between them and potentially inattentive drivers.	
Second Choice	First Choice	Seems safer.	
Second Choice	First Choice	I like bikers having more of a barrier from traffic.	Not a dog owner, but if there's an anticipated increase in dog walking traffic, we should consider offering some garbage/dog poop bags.
Second Choice	First Choice	Bicyclists need protected space from motorized vehicles.	
Undecided	First Choice	N/A	
Second Choice	First Choice	Safer for bicyclists to be further from motor vehicle lanes	
Second Choice	First Choice		
	First Choice	get the bicycle off the main roads.	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	Seems like option B is a safer option to keep away from motorized traffic	
Second Choice	First Choice	Keep a division between the bikes and cars. Several bicyclist's do not adhere to traffic laws and jut out into traffic whenever they want. My preference is to put them on 122nd instead.	
Second Choice	First Choice	Separation from cars is key	
Second Choice	First Choice		
Second Choice	First Choice	I want safety for ALL, and especially younger bike riders, (ages 10+) to keep them away from speeding cars.	
Second Choice	First Choice	Bikers will be much safer away from the vehicle lanes.	
Second Choice	First Choice	keep bicycles away from traffic.	
Second Choice	First Choice	Bikes should be separated from walkers and vehicles because all three modes have significantly different sppeds	
Second Choice	First Choice		
Second Choice	First Choice	The barrier between vehicle traffic and bike/sidewalk is extremely important! I n order to increase bike/foot traffic, folks MUST feel safe.	With a central planting strip down segment one, making sure that there is an easy way to get into businesses without blocking traffic would be ideal. If I'm no longer able to get to my local coffee shop or brewery or favorite sandwich place without having to drive past and U-turn or take side/back roads, it would be very unfortunate.
Second Choice	First Choice	It seems like bike riders will be better protected by option B, although you may need on/off bike lanes in some places.	
Undecided	First Choice	I am an avid cyclist. I avoid meridian at all costs. If I were to ride my bike on meridian, which is rare, this option would give the most protection.	Turn lanes, both LH/RH, at intersections or larger business areas.
Second Choice	First Choice	Bikes hitting people is more safe than cars hitting bikes. Wider pedestrian lanes off more flexibility for safe travel away from vehicular traffic. Adding bike lines next to car lanes see rare use.	
Second Choice	First Choice	Safer	
Second Choice	First Choice	Option B is safer	
Second Choice	First Choice	A barrier to protect pedestrians and cyclists is a good idea.	Please plant trees and landscaping in the planting strip! Do not make the same mistake that was mad in the road north of 24th street. It looks terrible!
Second Choice	First Choice	Keeping bikers safe	
Second Choice	First Choice	Bikes are separated from traffic.	
Second Choice	First Choice		
Second Choice	First Choice	I like that pedestrians have a buffer from drivers.	There is limited space on both sides of Meridian at this point. I believe the planting strips should be removed. Is there truly a large number of bicyclists that might use Meridian? Or is this wasted money spent needlessly...
Second Choice	First Choice		
Second Choice	First Choice	I don't think bikes belong on the street next to a traffic lane. It isn't safe for either the biker or the driver.	
Second Choice	First Choice	I don't bike, but feel that it is safer to have cyclists further removed from vehicle traffic.	Trees don't provide anything....have you seen how ugly the ones further north on Meridian look
Second Choice	First Choice	I like the idea of keeping bikes a bit further from the road.	My feelings and comments are above. Too late to solve traffic issues.
Second Choice	First Choice	Not having bike lanes on the street is safer	Please also make Chrisella safe for walkers/runners/bicyclists.
Second Choice	First Choice	Bike lanes next to cars more likely for accidents to bicyclists, safer for bikes, walkers into park	Although the cyclists are to adhere to road rules, if the lane will be separate from the motorist perhaps some kind of designated crossing over intersecting roads would be prudent.
Second Choice	First Choice	Option A put bikes to close to traffic. We see to many distractions, and bikes on the roadway would present a distraction that could cause a driver to drive into the biker.	
Undecided	First Choice		WITH all of the electric bikes etc. out there, it is delusional to think that the "non-motorized" lane will stay that way. E-bikes, powered skateboards are quickly becoming the norm and the police will not be the ones to constantly monitor this and keep these off the Non- People track. (Spend half a Saturday or Sunday at the new 36th street park and you can see this in action.)
Second Choice	First Choice		
Second Choice	First Choice		
Undecided	First Choice	CARS KILL PEDS AND BIKES. GET THEM FUTHER AWAY FROM MOVING TRAFFIC	I think the added bike or sidewalk area would make it safer for people to get around that don't have a vehicle. But I do think the main priority is making traffic flow better & safer.
Second Choice	First Choice	cars and bicycles don't mix well	
Second Choice	First Choice	Both sidewalk & bile lanes are buffered, by the trees, from the cars.	
Second Choice	First Choice		
Second Choice	First Choice	I like option B because the bike lane is safer for the bikers and cars alike. It would be best to keep traffic moving, some bikers ride the outside of the bike lane making drivers nervous that they will hit them causing a slow down to go around them or wait for them to pull to the middle of the bike lane for easy passage.	
Second Choice	First Choice	I think the option B of segment 1 would improve the safety for both pedestrians and commuters driving on the street. Option b offers that buffer distance between both which is great for when a biking accident may occur or traffic accident. They deserve to have their own space	
Second Choice	First Choice	I do get a little nervous with bicycle lanes so close to the vehicle lanes. As I see Edgewood growing, I see more kids on bicycles than I do adults. Because of that, I feel option B is safer for kids on bikes.	Use the funds to improve roads around Edgewood so commuters will drive around and not through.

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	Would prefer bikes be off the road for safety.	Use the funds to improve roads around Edgewood so commuters will drive around and not through.
Second Choice	First Choice	We do not need dedicated bike lanes. A multiuse sidewalk will work better.	
Second Choice	First Choice	Too many incidents of high speed cars/motorcycles on meridian.	
Second Choice	First Choice	Keeps bikes away from cars	
Second Choice	First Choice	Separate humans from cars.	
Second Choice	First Choice	I prefer option B because it provides increased safety for pedestrians and bicyclists from motor traffic. With the increase of traffic through this corridor it will provide added safety.	
Second Choice	First Choice		Landscape needs to be better maintained or better designs that require less maintenance. Not maintaining looks sloppy, lack of pride for community.
Second Choice	First Choice		
Second Choice	First Choice	Keep the bikes away from traffic	
Second Choice	First Choice		The intersection at Chrisella needs to be fixed.
Second Choice	First Choice	Physically separated for safety	
Undecided	First Choice	Moving the bike/non-motorized zone further away from traveling vehicles would be safer for pith the vehicle drivers as well as those in the bike/non-motorized lane.	
Second Choice	First Choice	It's too dangerous to be that close to the motorized vehicles for safely walking or biking.	
Second Choice	First Choice		Get sidewalks and round abouts in place where lights aren't in ppace for side streets trying to get onto meridian!
Second Choice	First Choice	Safer for my kids to ride bikes to park with physical barrier	
Second Choice	First Choice	Safer for people on bicycles and cars	
First Choice	First Choice		
	First Choice	Keeps bicycles separate from vehicles.. less confusing to motorists.	There's no bike lane north of 24th. Why would we need one from 24th - 36th? This makes ZERO sense. Sidewalks are what we need here.
Second Choice	First Choice		See comments in Box #5 above
Second Choice	First Choice	I would prefer to have the waling and bike path separated from traffic.	Landscape the center planting strip with plants and trees.
Second Choice	First Choice	Same amount of lane. Bike lane location.	
Second Choice	First Choice	Option B looks much better, and would be better for Safety	
Second Choice	First Choice	Keep pedestrians away from traffic. Drivers don't pay enough attention	
Second Choice	First Choice	Bike lanes would not be used. Better to have a single sidewalk.	
Second Choice	First Choice	Safer for families going to/from the park, although it's a relatively short section of road.	Why the planting strip where turn lanes should be? Will be a poor choice for business access.
Second Choice	First Choice		
Second Choice	First Choice	Safer to have bicycle further from road.	at intersections, signage for traffic to watch for bikes and bikes to watch for traffic.
Second Choice	First Choice	Safer for bikers and feels more like a path. Those fast moving cars. Someone on a bike is going to get hit.	To really make the corridor attractive the elimination of all billboards would be a huge plus.
Second Choice	First Choice	Concerned about cars turning into businesses crossing multiple lanes of bike/pedestrian.	
Second Choice	First Choice	Looks safer	will do so
Second Choice	First Choice		
Second Choice	First Choice	I prefer a buffer between cars and people due to the speeding on Meridian	
Second Choice	First Choice		NO MIDDLE BOULEVARD. Such a bad idea and only limits access to businesses / homes, as well as affects intersections where u-turns will now be necessary if boulevard is installed.
Second Choice	First Choice	I like the idea of a swerving car that there is the possibility of still being safe.	
Second Choice	First Choice	Can't get down to Puyallup after 4pm sometimes	We need some sort of indicator for business and street driveways/roads that cross the bike lane. I think the bikes should stop just like pedestrians.
Second Choice	First Choice	with the amount of traffic and how fast people drive in this area, it would be safer to have the pedestrian lanes separated from the traffic.	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	walkers and bikers then the planting. cars should not have to worry about bikers	
Second Choice	First Choice	Safest option for children riding bikes.	Would love to see Edgewood get rid of the big ugly billboards along Meridian
Second Choice	First Choice		
Second Choice	First Choice	Moving the bike away from the road is important for child safety.	
Second Choice	First Choice	Important to separate bicycle and pedestrian traffic from vehicle traffic	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	As a driver I'm much more comfortable with cyclists not adjacent to cars. When I lived in Seattle the cyclists would drift over to the auto lanes way too easily. Very dangerous for both parties. Let's be realistic here, lots of cyclists do not obey the rules of the road.	
Second Choice	First Choice		
Second Choice	First Choice	Safer to separate bike lane from drivers who aren't paying attention	
Second Choice	First Choice	Bike path away from cars improves safety and allows traffic to flow without obstacles.	
Second Choice	First Choice		
Second Choice	First Choice	Safer for bikes	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	I do not like the bikes possibly sharing the same level with cars just not safe, is there curb separation?	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	In other cities the bike lanes between the sidewalk and traffic lanes are very consuming. I like the one where they are adjacent to pedestrian lanes.	
Second Choice	First Choice	There should always be a buffer between cars and walkers for safety	
Second Choice	First Choice	Separation of bikes from cars would be better	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	The bike lane will remain safer and the surface will be cleaner	Connecting bike and walking paths through neighborhoods.
Second Choice	First Choice		Don't need sidewalks/ bike lanes in both sides of the street
Second Choice	First Choice	Moving bikes away from traffic is safer.	
Second Choice	First Choice	Not that many people bike or will bike along Meridian.	
Second Choice	First Choice	Improve pedestrians safety.	Traffic alleviation. Sidewalks all the way along meridian to the hill.
First Choice	First Choice		
Second Choice	First Choice	Need to keep the bikes and non motorized transportation any from the lanes of traffic	
Second Choice	First Choice	Separating bike lanes from car lanes has historically been safer for both parties	
Second Choice	First Choice	Keep cars separate from the seldom seen if ever bicyclist.	
Undecided	First Choice	Bicyclists would be much safer off of the road but it would have to be designated away from pedestrians also.	
Second Choice	First Choice	I see the bike lane being used more by kids and families going to the parks and business than commuters so it should have a safer separation from motorized vehicle traffic. The tradeoff is that drivers may not be as aware of the bike traffic when turning into businesses and walkers may not always stay on their side presenting a hazard both to themselves and the pedestrians.	Better visibility at the intersection of 36th St E, Meridian, and Chrisella especially for right turners from 36th on to Meridian. It's really hard to see people on Meridian coming around that curve in the road, so some kind of reflective mirror (or trimming back of trees would be quite helpful). Or potentially a protected merge/yield lane for people to get on to Meridian and then merge when they can see the traffic.
Second Choice	First Choice	options are for A, and B, yet you have us choosing option 1 and 2. very confusing. to answer the question though, I prefer the bikers be farther away from traffic.	
Second Choice	First Choice	An additional lane will keep traffic moving..outways the need for bike lane..there are hardly any bikes travel	
Second Choice	First Choice	Keep bikes away from traffic; less accidents; more kid friendly	Improved visibility on corners especially at intersections
Second Choice	First Choice	Bikes along this corridor need to be moved away from primary traffic. We've seen too many accidents in the Seattle metro area when trying to combine the two. Commuters driving through our city sot want to slow down for bikers who aren't paying attention.	
Second Choice	First Choice		
Second Choice	First Choice	Take away the badly maintained beauty strips and incorporate that into bike lanes. None of this makes sense if you spend too much money on it either	
Second Choice	First Choice	Traffic moves very quickly on Meridian and having the extra buffer between pedestrians and drivers is important.	We just need better flow of traffic between 24th and Todd rd. It's getting to over crowded and the roadways don't accommodate for that much traffic.
Second Choice	First Choice		
Second Choice	First Choice	Please separate the bikes from the cars the best you can.	
Second Choice	First Choice		
First Choice	First Choice	safety	
Second Choice	First Choice	I'm assuming option a is option 1, option b is option 2. If so I think a barrier with distance between humans and vehicles is prudent, I like option B (option 2?) since most non vehicle traffic will most likely be on foot.	Landscaping and most important keep them cleaned, trimmed and maintained. They were an embarassement last year.
Second Choice	First Choice	With distracted drivers, a buffer between motorized and non motorized vehicles is important.	
Undecided	First Choice	I walk two big dogs; need insulation from traffic	
Second Choice	First Choice		I have lived here since 1970 and the changes are awful! You have allowed too many low-income housing units to be built. Just look at the increase in the crime--used to be able to go to Safeway without worry but now criminals are stealing our purses and trying to car jack us.
Second Choice	First Choice		
Second Choice	First Choice	Like the divider between cars and divider between bikes and cars best safety	
Second Choice	First Choice		Sidewalks down 36th to make it safer to walk to the park.
Second Choice	First Choice	Separating bike and pedestrian traffic from vehicle traffic will improve safety and increase the amount of people using the bike lane	
Second Choice	First Choice		The corridor from 36th to 24th is so trashy looking. It is not very reflective of our town. To make people want to bike and travel to these businesses/areas it needs to feel nicer and have safe places to walk, park, and hold bike equipment.
Undecided	First Choice	Bike lanes? Not necessary. Sidewalks only. No one rides bikes in this area. Period.	
Second Choice	First Choice	Opinion B allows for a safe bike riding lane and ability for pedestrians	Less fancy street lights, I would like to see the city spend money more efficiently. The seating on the corners of 24th is a prime example of waste. Looks pretty when you drive by in a car but never gets used. Please stop trying to mimick bellevue or redmond or whatever crazy rich city you're trying to become.
Second Choice	First Choice	Gives clear indication where vehicles and bikes are to be also keeps bikes from riding in street where there are turn lanes etc	
Second Choice	First Choice	Pedestrian > bike > trees > cars seems to provide the most space and safety for all	
Second Choice	First Choice	I feel safer knowing my family could use their bikes without being on the road.	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	Safety. Simple as that. People do not abide by the speed limit of 35mph. It's not safe unless people are physically separated.	
Second Choice	First Choice	I believe it would be safer for adult and youth riders to be separated from motorized vehicles on this busy street	SR161 needs to be 4 lanes all the way to SR167. It could be done in three phases; Replace the overpass that goes over the Unio Pacific RR, expand to 4lanes from 24th to 36th, then tackle the hill. As a temporary solution, make the existing center lane NB, a reversible lane.
Second Choice	First Choice		
Second Choice	First Choice	I'd feel better knowing bikers are protected more by not being right next to cars. Drivers already have a hard time staying in their lanes so adding a buffer between road and bikers protects more	
Second Choice	First Choice		Make it safe and easy for people to access the new park.
Undecided	First Choice		
Second Choice	First Choice	The bike lane should not be next to the traffic. It's dangerous.	
	First Choice	This survey is confusing. Option 1, A, or B, you make it option 1 or 2. Very unclear when related to pictures.	
Second Choice	First Choice	Safety	More trees! From both an environmental and aesthetic aspect, naturalizing the corridor will make it feel more welcoming, soothing, and homey than the sparse / industrial aesthetic it gives off today. Also, as summers get hotter, the shade will be increasingly important to encourage walking and reduce road heat.
Second Choice	First Choice		
Second Choice	First Choice	Safety for pedestrians	
Second Choice	First Choice	safety. i think a buffer between pedestrians/bicyclists is extremely important especially with the speeds.	
Second Choice	First Choice	If there are bike lanes and families use them then it would be nice to be away from the road for children's safety. I would not ride in a bike lane next to a busy road with children.	
Second Choice	First Choice	As an underconfident bicycle rider, I don't like to be near cars.	
Undecided	First Choice	If the bike infrastructure is not physically separated, then don't bother. It won't get used. When building a bike lane on Meridian, you should be asking "Will a 10-year-old be able to use this? Will an elderly person be comfortable riding here?" Do not design a bike lane for recreational riders because it's a waste of time.	
Second Choice	First Choice	I like separating people from cars.	
Second Choice	First Choice		
Second Choice	First Choice	Cars go to fast unsafe for bike lane on road	
Second Choice	First Choice	More separation for the bikes and cars is good.	
Second Choice	First Choice	Need to develop walking and biking places. Less cars more other stuff	I think there definitely needs to be a traffic light at 32nd. Very difficult for residents to turn onto meridian without a light. This forces traffic to use 106th as an arterial to get to 24th and be able to use the light there to turn onto Meridian. At the very least new an improved speed limit signs along 106th would be appreciated.
Second Choice	First Choice	Safety	
Second Choice	First Choice	Busy road, need to sp pedestrian from automobiles	
Second Choice	First Choice	The second choice keeps bicycles safely out of traffic	
Second Choice	First Choice	Ffew bikers making it less of an issue for pedestrians to navigate bike lanes. Also a larer buffer for children from the street	
Undecided	First Choice		
Second Choice	First Choice	People honestly have no business walking or biking up or down meridian to todd road. Barrier or not it's a fatality waiting to happen. You can widen all you want but those blind corners are not conducive to pedestrian traffic. Plus there is nothing to connect. The car dealership and what? The park? The gun store? The park that doesn't even have any sports fields? No thanks.	
Second Choice	First Choice	Having the buffer between the bike lane and vehicle lanes would make me feel much safer and more comfortable with biking along Meridian (and allowing my pre-teen and teen to do so as well).	
Second Choice	First Choice	Option 2 appears to be a safer option for the public as well as providing a buffer between bike lane and motor vehicles	
Second Choice	First Choice	Feels safer to move all non-vehicle traffic away from a busy road.	Street light on 32nd St
Second Choice	First Choice	More safety for non motorized	I prefer Option B as it protects the bike lane from the traffic lane. A better safety option in my opinion.
Second Choice	First Choice	Assuming option 1 = A and option 2 = B. Separating the bikes from vehicles provide the riders with greater protection. A pedestrian and cyclist impact will be far less impactful than a car and cyclist. This also separates younger or more inexperienced riders further from vehicles who may be more likely to abruptly swerve into traffic or react poorly to passing vehicle. Particularly the very large or loud ones.	
Second Choice	First Choice	Seems safer for drivers and bikers	
Second Choice	First Choice	Better pedestrian and bie safety.	
Second Choice	First Choice		HOW ABOUT ENFORCING TRAFFIC SPEED LIMIT AND LAWS LIKE EDGEWOOD USE TO!!
Second Choice	First Choice	The buffer between bikes and vehicles should be standard. Even with designated bike lanes, cars can creep to the edge lines or not pay attention and cross over. In addition, that extra bike space can turn into parking for vehicles doing quick errands or deliveries which would then negate the purpose of the lane.	Finish 167 1st

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Option A	Option B		
Second Choice	First Choice	I think it would feel safer to have the buffer for bikes, considering families with children will bike to the new park etc	
Second Choice	First Choice	Safety of bikers and motorists	
Second Choice	First Choice	Option 2 appears to be the safer option for bicyclists by increasing the buffer area for bicyclists.	
Second Choice	First Choice	Because of how twisty that road is, I would feel more comfortable waking or biking with a buffer between that and the cars- people drive crazy on this section.	
Second Choice	First Choice	Safer for pedestrians	
Second Choice	First Choice	Safer	
Second Choice	First Choice	Option 2 is safer	
Second Choice	First Choice		Will there be turn lanes? Not included in sketch above. That would be a better use than a green strip in the middle that will need the road shut down to maintain and will be full of weeds.
Second Choice	First Choice	I like the idea of having separation of the bike lane from the road for safety- especially since it goes to the new park and kids may be using it more.	
Second Choice	First Choice		No roundabouts.
Second Choice	First Choice	I like the safety and comfort of separated, bike/walking lanes	
Second Choice	First Choice		
Second Choice	First Choice	Bikes away from cars is safer	
Second Choice	First Choice	Keeping pedestrians farther from the road	The new 36th park has virtually no separation between cars and the park. The entire Play area park should've been build on the east side of that property. Very exposed to creepers, kidnappers and cars.
Second Choice	First Choice	Option B has more room for walking and biking. The plantings are only necessary IF they are going to be kept up! The current plantings are in TERRIBLE condition!	
Second Choice	First Choice	Bikes in traffic create danger.	
Second Choice	First Choice	I don't like driving right next to a bike lane. Option B has a barrier between bikes and cars.	
Second Choice	First Choice	A barrier between bike lane and drive lane would be the most safe option for persons riding bikes to be safe doing so.	
Second Choice	First Choice		I would like to see a rode that does not encourage people outside town to travel through town. Roundabouts in numerous locations might help. Reduce speeds with red light cameras. My only worry is this would make them travel down side roads. Widening the roads is a good idea making it as pretty as possible. I like a roundabout at the corner of 36th. That corner is hard to see around the people speeding up the hill.
Second Choice	First Choice	I like the idea of keeping bikes away from vehicles, rather than having them closer to traffic. I understand the bike lanes give bikers more room, but accidents happen. It's safest to have them off the side of the road if possible. It also gives an area where kids can safely ride up/down Meridian, whereas we wouldn't allow our younger children to ride in the bike lane if it's adjacent to the road.	
	First Choice	With trees separating the bike lane from traffic, aesthetically it looks "smaller" and less like a big, wide busy street. Visually it would look less like our roads have been impacted by the numbers of people moving here.	
Second Choice	First Choice	It seems safer that bicyclists be further away from vehicle traffic rather than closer.	
Second Choice	First Choice	Don't need a separate lane for bikes and pedestrians. They can share.	
Second Choice	First Choice	A sidewalk and beautification of the street is absolutely necessary. A bike lane is not necessary.	Keep truck traffic off these roads. Too dangerous to mix local traffic w trucks. Please landscape and do so logically (appropriate tree selection & planted according to tree needs when mature etc)
Second Choice	First Choice	Is "Option 1" really "Option A"? If so, the above rankings apply.	
Second Choice	First Choice	Off-street bike lanes for safety	No bike path needed. Distance is very minimal and riding a bike such a short distance is impractical. If we were attached the urban trail that would be different.
First Choice	Second Choice	Keep the trees you will be planting from growing over the road way quite as much; avoid bicycle/pedestian conflict.	
First Choice	Second Choice	Safer for pedestrians	
First Choice	Second Choice	In theory bicycle traffic should be moving in the same direction as vehicles. It is probably easier to avoid negative pedestrian interactions by separating walkers from other non-vehicular traffic.	Widening the road isn't feasible or optimal, but giving people alternatives to driving with safe walking and biking sidewalks/lanes would help. Stop building multifamily units in Edgewood. There are too many people as it is.
First Choice	Second Choice		
First Choice	Second Choice	Cyclists know how to navigate a bike lane alongside traffic. speed limit is only 35 mph and it is reasonable to put the lane next to traffic. This will also encourage cyclists to obey traffic signals. Alternatively, a bike lane next to the side walk will result in pedestrians (naively) walking in the bike lane and will inevitably result in mishaps or worse. Orting foothills trail is an example where the bike lane and walking paths are merged and cyclists ignore stop signs.	
First Choice	Second Choice	I think option A looks more attractive.	
First Choice	Second Choice	Keep bike lane separate from walking path	
First Choice	Second Choice	safety	
Second Choice	Second Choice	No bikes to many cars more lanes please	
First Choice	Second Choice	This seems like the normal layout.	
First Choice	Second Choice	Bike lane separate from the walking lane.	

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Option A	Option B		
First Choice	Second Choice	Option A looks like it would cost less and not take as much land from individuals	
First Choice	Second Choice	Option B seems like it would be more safe for cyclists.	Planter strip actually sized correctly for trees
First Choice	Second Choice	the question is really where bike lanes should go. I'm guessing putting bike lanes with regular traffic is less costly but less safe for bikes. However, bike and pedestrian lanes don't always mix well either and have to think much more expensive (but only guessing)	
First Choice	Second Choice	I like the separation of vehicles and bicycle path.	We need businesses. Talk to businesses and see what features could be added to get them to come to Edgewood. Add sidewalks to the park.
Second Choice	Second Choice		
First Choice	Second Choice	Safety	
First Choice	Second Choice		Turn lanes at intersections. Less green space because of cost for upkeep and dog walkers will allow their dogs to poop there. Planting strip has not previously been maintained, and that probably won't change. Sidewalks are nice but who will be walking? I drive from 24th to Safeway and beyond...hardly ever see a walker.
First Choice	Second Choice		Stop building apartments right at the curb on Meridian! They add to congestion. And get rid of all the shabby, dilapidated properties there now. Clean up! What about the roundabout at 36th? And closing the top of Chrisella?
First Choice	Second Choice	As bikes are a form of transportation, I think the bike lane should be closest to the street/traffic. In my opinion, it is nonsensical otherwise.	
First Choice	Second Choice	Option A makes the bike lane like most other bike lanes, and I think that's appropriate for the segment.	Better left turn options
Second Choice	Second Choice	Na	Install a camera to catch red light runners at 36 and Meridian. Force people to slowdown. Charge a toll. Force people to use other roads. If you care about safety do something big about it.
Second Choice	Second Choice	Leave it alone. We don't need to change the current street.	
First Choice	Second Choice	We seldom see bikes on hwy 161. Its not a place for them. Seattle has tried option B and its made the streets less accessible and harder for cars to see bikes.	
First Choice	Second Choice		
First Choice	Second Choice	Some people tend to speed on their bikes and could endanger young children or elderly people who are walking. Separating them would keep walkers safe.	Is a planted strip in the middle the most cost effective or environmentally friendly option?
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	I am a cyclist. Option A seems safer but more prone to homeless camps that is why I chose option B	
First Choice	Second Choice	I prefer the bike path for travel with roads and allow the sidewalks for pedestrians only	
First Choice	Second Choice		
First Choice	Second Choice	I don't like the idea of a bike lane next to the sidewalk.	
First Choice	Second Choice	I am a very hard core bicyclist and typically travel at 15-20 mph on my bike on flat terrain. My preference is driven by needing a buffer between me and pedestrians who typically are not aware of fast moving bicycles coming from behind.	No roundabouts no additional traffic lights
First Choice	Second Choice		Some type of traffic control for speeders and people who aggressively merge into other lanes. Any improvements need to have sidewalks for safe access to the new park and the numerous apartment complexes down the road.
First Choice	Second Choice	Safety of pedestrians and cyclists.	
First Choice	Second Choice	As a walker who sometimes brings my dog, bikes and dogs on leashes don't always mix well. As long as the buffer for bikes next to the car lane is also safe for kids, by preference is option A. Also, there are a few bikers who don't respect the lane designation and it makes it hard for pedestrians to negotiate space.	
First Choice	Second Choice	As a pedestrian, would not feel comfortable walking next to bicyclists speeding past me in as in Option B. Vehicles may not see bikes when making turns since their lane is further out of site.	
First Choice	Second Choice		
First Choice	Second Choice	Separate the bikers from the walkers.	
First Choice	Second Choice	Not many bikers, the combined area separated from traffic will allow more foot traffic, families with kids both walking and biking.	
First Choice	Second Choice	bikes are separated from walkers	Less greenery, because what we have now is not being maintained, is costly and is ugly.
First Choice	Second Choice		
First Choice	Second Choice	People should be walking a safe distance away from vehicles.	
First Choice	Second Choice		Do not add too much green stuff that will not be maintained.
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice		

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
First Choice	Second Choice	Bike lanes work well	Not sure what the solution is but driving on Meridian in Milton/Edgewood is frustrating at times. If I travel at the speed limit I'm flipped off, tailgated, honked at and on occasion I've had trucks pass me then get in front of me and slam on their brakes (to teach me a lesson, I suppose). Consequently, I travel on Meridian at close to 40mph FOR MY SAFETY! Yes, I admit I speed. But I feel safer speeding a bit than following the law in this case. Too many short fused angry people with guns.
First Choice	Second Choice	Bikers will still be safer away from cars but will be able to use all traffic lanes without cutting into pedestrian area.	Concentrate on vehicle lanes and simple sidewalks. Anything else is a waste of money.
First Choice	Second Choice	Cyclists will overrun pedestrians if put next to them. They will use the sidewalk	
First Choice	Second Choice		
First Choice	Second Choice	Separating the pedestrian and bike lanes is important.	
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	I live on Meridian in the Simons Mills apartment complex. It's hard to get out on Meridian to take a right. It's really hard to take a left. I'm a little concerned about 2 lanes in both directions.	
First Choice	Second Choice		Alternatives to the planting strip
First Choice	Second Choice	The bike lane is not useful to me personally, but seems to offer better options for turn lanes at appropriate times than option B.	
Undecided	Second Choice	I grew up in UP and they actually decrease the width of Bridgeport and 67th to decrease traffic and speed - we don't need to increase accessibility for faster speeds	
First Choice	Second Choice	Ever walked toddlers or dogs on a Sidewalk during the hot summer? Ugh! Sidewalks heat up incredibly and having trees closer to the PEOPLE and pets who are on foot is preferred. Also, having been at Greenlake and the like, know from experience the pain of having a pedestrian or pet repeatedly being nearly mowed over by bicyclists who want to cheat and use the sidewalk or "non-wheeled" sidewalk for a passing lane around other slower riders.	
First Choice	Second Choice	I think double lanes on each side would help with traffic.	I dislike seeing planting strips in the middle versus two way turn lane. Your plan requires going to an intersection and making a U-turn and does not provide an alternate lane when traffic accidents happen.
First Choice	Second Choice	It would be safe for my family to walk and ride bikes with this plan	
First Choice	Second Choice	Keeps pedestrians safe from bikes and skateboard riders	
First Choice	Second Choice		
First Choice	Second Choice	More important to keep bikes away from walkers than cars. And it appears there will still be a divider between cars and bikes.	More room for traffic
First Choice	Second Choice		
First Choice	Second Choice	Biking is low on my priority list but bikes I believe would endanger pedestrians more than be endangered by automobiles on the road.	
First Choice	Second Choice		
First Choice	Second Choice	I would prefer to bike ride with a median between the sidewalk and bike lane.	
First Choice	Second Choice	Pedestrians tend to not pay attention and walk down bike paths as well. Splitting the two will eliminate Pedestrians walking down the bike path. Also, having the bike path on the road will allow extra space for emergency vehicles to get through during heavy traffic.	
First Choice	Second Choice		
First Choice	Second Choice		Make sidewalks and bike lanes one. Makes for a wider path and allows for events.
First Choice	Second Choice	Like keeping pedestrians separate from bikes	
First Choice	Second Choice	Bikes move quickly like cars. It would be nice to have a walking path separate from fast moving vehicles and bikes.	
Second Choice	Second Choice	Bikes interfere with traffic flow. Having a separate lane will help that and keep them safer.	
	Second Choice	Cars speed way too fast- too risky putting bikes next to car lanes	
First Choice	Second Choice	Traffic is and will likely become more aggressive with these changes, max buffer important	Leave it all as is.
Second Choice	Second Choice		
First Choice	Second Choice	Needs to be pedestrian friendly.	
First Choice	Second Choice		Properly sized roundabouts work well. See 70th in Fife for an example of a DISASTER roundabout.
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice		Arrows that show the direction walkers and bikers should be facing to ensure they see each other. Use different asphalt types for bicycle lane and walking path to ensure each stay in their lane. (bumpier/quick drain walking path)
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	An established break between bikes and walkers would reduce conflict and be safer.	
First Choice	Second Choice	Seems to be very little bicycle traffic along here.	less use of runabouts
First Choice	Second Choice	Shared pedestrian and bike lanes tend to cause accidents in my experience.	
First Choice	Second Choice	Bikers should be closer to vehicle traffic since they should follow traffic laws.	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
First Choice	Second Choice		
First Choice	Second Choice	I like the idea of a bike lane for those who would like to ride their bike through town. Not sure I have really seen people riding their bikes through town and maybe that is because they do not feel safe.	
First Choice	Second Choice		Stop spending so much money trying to make Edgewood into Seattle JR and keep it a small town
First Choice	Second Choice		
First Choice	Second Choice		
Second Choice	Second Choice	I feel the buffer space is a more safe option for bikes	
First Choice	Second Choice	Bikers next to pedestrians/dog walkers is never a good idea. 2nd option has trees close to cars...where are the lights?	SAFETY. Lose the trees and lawn. I don't want tax money going to landscaping.
First Choice	Second Choice	Keep the bike lane off the sidewalk.	
First Choice	Second Choice	Don't need physical separation for bike traffic.	
Second Choice	Second Choice		barrier around park next to meridian to protect young children who may stray towards the road
First Choice	Second Choice	I like the bike path being separated from the sidewalk, bikers flow with traffic vs pedestrians	A fence on the border of the new park.
First Choice	Second Choice	Bike training puts them in line with cars not pedestrian.	
First Choice	Second Choice		
Second Choice	Second Choice	If the bikes can be closer to the cars I think that would be safer. Or bikes always weave in and out of traffic and if people in cars are turning they may not see bikes if trees and sidewalks are blocked them.	
First Choice	Second Choice		
First Choice	Second Choice	Looks like option one would cost less. We need roundabouts!	
First Choice	Second Choice	There should be an option C to not have a bike lane. There simply is not enough, or ever will be, bike traffic.	
First Choice	Second Choice		
First Choice	Second Choice	If the bike lane is next to the sidewalk people will bike on the sidewalk!	I wish the lights turning onto 16th and 24th were left turn yield, especially during low traffic time.
First Choice	Second Choice		
First Choice	Second Choice	Shouldn't the options be listed as A and B not 1 and 2? That is a little confusing. Bikes belong with traffic not with pedestrians unless it's a small child.	
First Choice	Second Choice	Where do electric scooters go? if they can use the bike lane when attached to the road, then that's my preference. If when the bike lane is attached to the sidewalk... where do you expect electric scooters to be? With the lack of bus routes off meridian, using electric scooters to get to the core, carry on the bus, and then use for last mile access on the other end it is more convenient.	Be consistent with Right-of-Way dedication. Right of way should be taken consistently from big developments as well as small businesses/residences along the corridor. You can already tell that the City of Edgewood has been inconsistent with the developments between 24th and 36th, allowing the big multi family developers not to dedicate ROW. Additionally, the merge between 24th and 36th is poor and the intersection of 36th/Chrisella and Meridian needs to be redesigned. It is a very dangerous and poorly designed intersection that does not take the safety of the new park patrons into consideration.
Second Choice	Second Choice		
First Choice	Second Choice	The buffer seems sufficient to me.	More lighting
First Choice	Second Choice	There are very few bikers in Edgewood, mostly because the weather is so poor. The few bikers should be next to the drive lane so that the many pedestrians can enjoy their peaceful and serene walk.	Too many apartments bringing crime and traffic. We are quickly becoming South Hill. We will have to move when all of this comes to fruition.
Second Choice	Second Choice	Less cost	
First Choice	Second Choice	Physically separating bike lanes for riders safety	
First Choice	Second Choice		
First Choice	Second Choice	Bikers can ride fast and injure pedestrians. Also pedestrians may not be paying attention causing accidents with bikers.	
First Choice	Second Choice	Most roads I've seen have the bike lane on roadways.	A barrier between the 4 lanes to reduce head on collisions.
First Choice	Second Choice	I believe to improve the corridor and create improved safety features is paramount primarily for vehicular travel, which is the highest users of the corridor. Also, that approach could assuredly get the project planned, permitted, and constructed sooner, compared with more studies and greater cost considerations for pedestrian, biking, and tree planting facilities.	
First Choice	Second Choice		
Second Choice	Second Choice		
Undecided	Second Choice		Do not plant trees. They grow to big. The roots will crack the roads and sidewalks. Their limbs will scratch the vehicles or cause drivers to swerve into other lanes.
First Choice	Second Choice	Bike lanes are not as important as people think they are. There are not THAT many people riding bicycles on Meridian that require a full bike lane.	
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	Keep bikes separate from strollers and children walking.	
First Choice	Second Choice		Intersection @ Columbia Bank needs addressed. Gain accessibility to Safeway parking lot. A light there or roundabout needed.
First Choice	Second Choice	The separated bike lane is awkward.	Crosswalks with yellow flashing lights
First Choice	Second Choice	Safer for walkers with the tree buffer in between	It's a small country town. Do not make it more.
First Choice	Second Choice	As long as there's a very good buffer (highly raised curb for instance) between the vehicle traffic and the bicycle lane (Option 1), I would prefer this option to keep bicycles away from pedestrians.	

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
First Choice	Second Choice		
First Choice	Second Choice		
Second Choice	Second Choice		
First Choice	Second Choice	driveways and bicycles don't get along well	
First Choice	Second Choice	To beautify Edgewood.	
Undecided	Undecided		
Second Choice	Undecided	The bike/multi use lanes take up too much of the already limited space.	Just please be bold in designing something that allows safe travel outside of a car. Milton and Edgewood are choking with car traffic, and we cannot add lanes to get out of the problem. The leadership must come from designing proper, safe infrastructure.
First Choice	Undecided		Street plantings that won't look dead in a few years or cost a lot to maintain.
Undecided	Undecided	Provides sidewalks	
Undecided	Undecided		
Undecided	Undecided	I see a no-win scenario. Too much traffic for any kind of pedestrian usage along Meridian. How many people walk along 512, I-5, or for that matter any major road in Pierce County? How many deaths would take place? One accident on Meridian will lock up traffic for miles in any direction. Add a roundabout, and migraines will follow, to say nothing of the impact to schools /students/school busses.	
Undecided	Undecided	I don't walk or bike this area, so I don't have a preference.	
Undecided	Undecided	I can't see the difference in the picture example	
Undecided	Undecided		
Undecided	Undecided	Adding any more lanes will increase traffic volumes and make it more dangerous, pedestrians will get killed!	Landscaping that is simple enough to be maintained well. Edgewood currently cannot/does not maintain what it has along meridian
Undecided	Undecided		Idea: do nothing. These ideas aren't good. Put some sidewalks or bike lanes or even a decent road shoulder from the neighborhoods in Milton and Edgewood and connect them to the business center (if one can honestly call a couple dive bars and an abandoned video store a business center). Let the highway be a highway. Nobody is taking a leisurely Sunday stroll down a highway because it's a fucking highway. Look at 99 in Fife. Nobody riding a bike or wandering the side of the highway is up to much good. Get highway people thru town as quickly as possible. Don't stop until they get to Federal Way. So do nothing. Let other road projects work out and maybe the commuters will have better options.
Second Choice	Undecided	I like the bike lane away from traffic.	
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided	I wish there was a neither option, no bike lanes are needed. These are not functional options for Meridian. Too much wasted space with tree buffers and bike lanes. I can see the benefits of a sidewalk but the remaining area should be used to increase the flow of traffic that is going to continue to grow.	
Undecided	Undecided	They both look the same to me.	
First Choice	Undecided	I gave the rankings that high or low weather they are important to me	
Undecided	Undecided		Remove bike lanes, planting strips as traffic separations, and minimize landscaping.
First Choice	Undecided		
Undecided	Undecided	Use the funds to improve roads around Edgewood so commuters will drive around and not through.	
Undecided	Undecided	Use the funds to improve roads around Edgewood so commuters will drive around and not through.	
Undecided	Undecided	Why would you need a separate bike lane and pedestrian lane? In would be sufficient and probably more cost effective.	
Undecided	Undecided		Traffic light at 32nd and meridian
Undecided	Undecided		
Undecided	Undecided	Traffic is going to be awful during construction	
Undecided	Undecided		
Undecided	Undecided		More crosswalk options.
Undecided	Undecided		
First Choice	Undecided	We need better flow for vehicles, sidewalks and biking wouldn't be used enough or have that many people using them.	
First Choice	Undecided		
Undecided	Undecided	In 15 years of having a retail business directly in the area under study it only needs more lanes for cars and a sidewalk, the mount of bicycle traffic does not justify the expense of a bicycle lane, they can share the road or the sidewalk when necessary. Enough of the foolish spending of money and resources.	
Undecided	Undecided	I don't understand the pros and cons of each.	Better lighting especially at intersections.
Undecided	Undecided		Maybe benches at intersections like the one on 24th to make it feel more friendly.
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided	This seems very confusing as how it connects to puyallup and federal way or even within Edgewood, does not align. 2 lane 2 ways, seems like it should be 2 lanes one way and 2 lanes another?	
Undecided	Undecided		

6. Please rank the		7. In one or two sentences, please let us know why you gave the rankings you did for the options.	8. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Undecided	Undecided		
First Choice	Undecided		
Undecided	Undecided	Need sidewalk to park. Either build a city with useful features to bring in businesses or stop wasting our money.	
Undecided	Undecided		
Undecided	Undecided		
First Choice	Undecided	Having the bike lane so close to the sidewalk will result in pedestrians being mowed over by bikers or ebike riders.	A planting strip down the middle of the road is a waste of space and tax payer dollars as it serves no purpose other than looking pretty and will have to be maintained. A center turn lane allows vehicles and traffic to continue to move as people can get into the various business along the way. Also duing emergencies, the center turn lane allows emergency vehicles to easily bypass traffic. Keep the center turn lane for the entire stretch of road.
Undecided	Undecided	Concentrate on vehicle lanes and simple sidewalks. Anything else is a waste of money.	
Second Choice	Undecided		
First Choice	Undecided	Better option	
Undecided	Undecided	Don't like the center grass island. What we have is currently isn't maintained. And the cost of added employees to maintain the added would only help to increases my taxes.	
First Choice	Undecided	First, you should not call it option A then in your question call it option 1.	
Undecided	Undecided	If you put the bike lane next to traffic, delivery drivers will park in them.	
Second Choice	Undecided	Because your taking away why people chose to live here	
Undecided	Undecided	The current pedestrian access to the highway is sufficient. This is not an urban environment where non-motorized travel is frequent or necessary. Anyone not driving is typically a transient. No option that includes expanding non-motorized travel along the corridor is in the best interest of the populous that is primarily motorized commuter based.	
Undecided	Undecided	Physical separations (planting strips) between car lanes will impact the ability to enter and leave many of the businesses between 24th and 36th. They will also cost much more money to develop and maintain the landscaping. Bike lanes do not make sense to include as there aren't many other streets with bike lanes or sidewalks for bikers to even safely get to 24th or 36th in the first place.	
Undecided	Undecided		
First Choice	Undecided	Bike riders separated from walking	
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided	I don't know what would be better	
Undecided	Undecided	Meridian needs two lanes in each direction with a turn lane. Plus side walks on both sides and a bike lane. Anything less is a waste of time.	

neather option

First Choice
This is unacceptable

Second Choice
No enough bike traffic to warrant their own lane.

First Choice
First Choice
Second Choice
First Choice
None of Edgewood's inhabitants want more development. This is why we have chosen to live here , to help maintain a "small town" feel. Understandably, there will be growth. I would like to see the city work with local, environmentally progressive Design-Build contractors. Invest in hiring a great architecture firm that will set us apart. Put the money into the DB effort that will build for now and the future.

Bikes don't belong with pedestrians

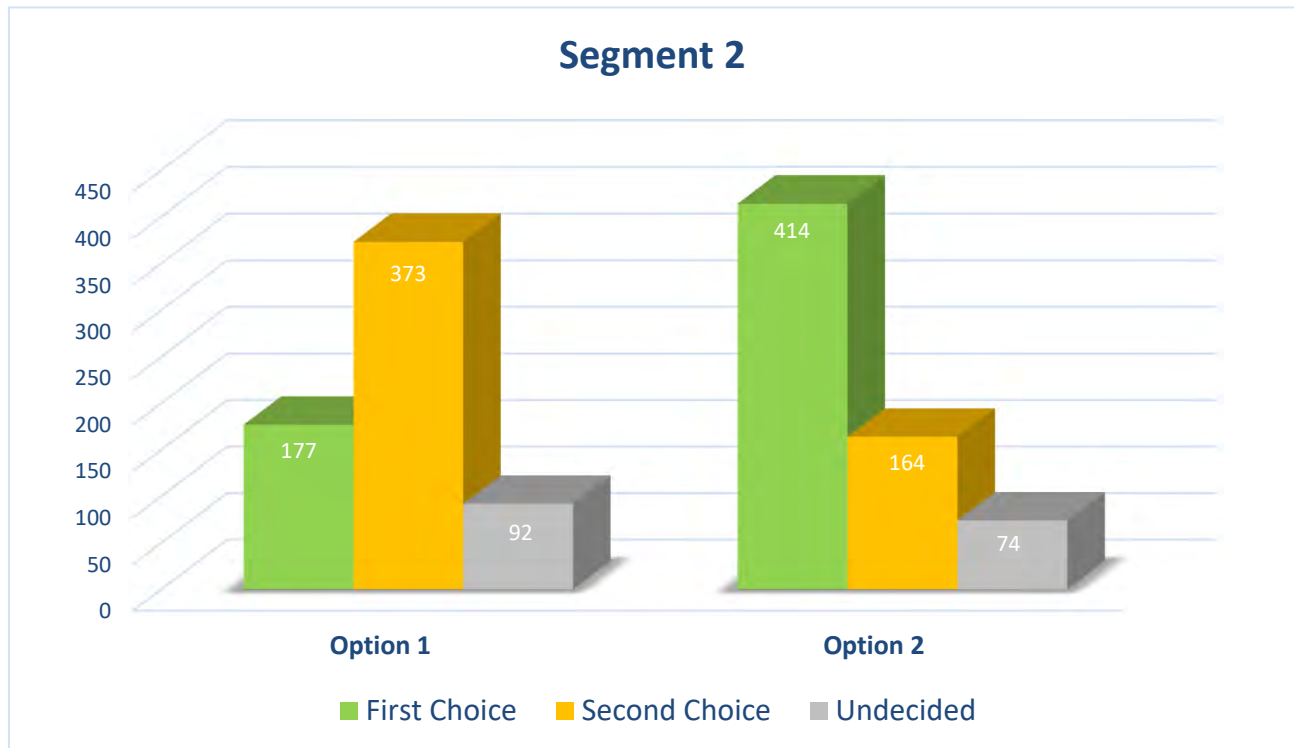
Second Choice
A the main stretch of the city, I'm looking forward to it looking purposefully beautiful

First Choice
First Choice
It's not possible to truly compare without also knowing the costs and funding sources.
Is "Option 2" really "Option B"? If so, the above rankings apply.

From 36th down the hill is too dangerous for bikes and pedestrians . Need more car lanes to ease back up on Meridian

9. Please rank the preliminary options for Segment 2 (36th to Puyallup City limits)

	Option 1	Option 2
Undecided	92	74
First Choice	177	414
Second Choice	373	164



9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	2 lanes each way will improve movement around accidents and road repairs/maintenance.	
Undecided	First Choice	This is not a safe section of road for multimodal traffic. Save lives and make it for vehicular traffic only.	Keep any multimodal zones within the city and do not connect to outside areas. We don't need homeless and desperate people ruining our nice city.
Second Choice	First Choice	The hill is a traffic nightmare and adding a sidewalk will help 0 actual residents while providing hundreds of homeless (homeless neighbors) access to leave the river at the bottom of the hill and walk on up and commit crimes.	
Second Choice	First Choice	This road has to be fixed in some way. It's an accident waiting to happen	Multimodal traffic should not extend beyond 36th street. We don't need homeless and dangerous transients infiltrating our community from the encampments that exist down the hill. Please keep our community and children safe! Thank you!
Second Choice	First Choice	Better traffic flow during peak commute times	I've lived here since 1992 and the last 5 years as a homeowner in Edgewood have been very disappointing. The city cares more about fancy center median planters and pretty rustic lamp poles than they do about the gridlock they've allowed to fester as they build as many apartment complexes as humanly possible. Instead of expanding the lanes of travel for tax payers /residents. I hear that "if we widen the roads, that will just encourage more people to drive through Edgewood"... news flash people, everyone already does use Edgewood as a cut through and a bike lane isn't going help a damn thing.
Second Choice	First Choice		
Second Choice	First Choice	Moving traffic up and down Meridian is more important to me than the pedestrian access. Work with State and Puyallup to widen the road all the way to Valley Ave.	
Undecided	First Choice		
	First Choice		
Second Choice	First Choice	Need tow lanes each way down the hill.	
Second Choice	First Choice	During icy/snowy road conditions or wind-fallen trees, the two lanes downhill are extremely important to improve safety.	
Second Choice	First Choice	Walking space is a nice idea, but the needs of the drivers far exceed the needs of the very very few pedestrians that would have any need to walk up or down that hill.	
Second Choice	First Choice	Scary to imagine a bicycle careening down the hill out of control	
Second Choice	First Choice	To remove the traffic bottleneck.	Make it 4 lanes all way to Valley Ave.
Second Choice	First Choice	I think option B is best because it is safer for pedestrians.	
Second Choice	First Choice		
Second Choice	First Choice	People drive 50-60mph on this road. Widening it would relief the stress of the driver on your tail for no reason other than they have no respect.	
Second Choice	First Choice	I don't envision a lot of people walking up the hill. I'm afraid it would encourage homelessness to trickle into Edgewood	There's mention of putting in a round-about in this section of road - ?32nd? Or 36Th?. That may cause problems for people turning left onto/off of Meridian during high traffic hours. Currently during high traffic hours I'm only able to turn left onto/off of Meridian to/from side streets when there is a pause in traffic due to the traffic light at 36th. With a roundabout there might never be a pause, forcing drivers to turn left at traffic lights at 24th or 36th and then drive through residential areas to get to their destination/home. This would cause increased traffic on smaller residential streets where many people walk, children are at play, etc, etc.
Second Choice	First Choice	It might help more with evening traffic to have more lanes.	Before deciding, I would like to know if expanding to 4 driving lanes, option B, will be instrumental in improving traffic flow when the 167 is extended at to connect to I-5 in Fife. Will 2 southbound lanes going down the hill allow traffic to flow more easily into a right turn onto the new 167 westbound extension?
Second Choice	First Choice	The pedestrian/bike area doesn't need much space. Space should be used for vehicle traffic.	Can you provide a walk pathway off the shoulder west of the drive lanes to allow safe walk or bicycle down the hill.
Second Choice	First Choice		Thank you for asking for input. I would like to see this type of survey used more on other projects in Edgewood. Although the developers may not like my ideas, at least I can be part of the process without having to attend a meeting.
Second Choice	First Choice	If 2 lanes end at 36th, we are right back to the traffic mess we now have at 24th.	The left turn into 102nd is very dangerous. The sign that shows a left turn is weak. We need a stronger signage or flashing yellow light showing a left turn is a possibility and that sign must be before the curve. Maybe the sign should read how many feet ahead is the turn. The the left turn issue is going down the hill into Puyallup.
Second Choice	First Choice		A safe route west of and separate from Meridian for pedestrians and cyclists
Second Choice	First Choice	Option B for added car capacity. I don't agree with this drawing though, you should still have room to build 4 lanes and a sidewalk. You need to straighten the road, buy a couple houses and build retaining walls. If you don't think it can be built, hire a new Engineer.	You should add a center lane for cars turning on this road. It's very dangerous without it.
Second Choice	First Choice	The population residing in Edgewood and Milton has seen a big spike with the addition of new homes and apartments recently. And there are still more apartments, housing communities, and retail spaces currently being built. 98% of these people are going to be driving and not walking. One lane roads aren't going to support that amount of traffic without severe congestion, especially during peak commuting times. Putting a significant amount of money to add a walking lane that few people will use on a consistent daily basis doesn't make much sense and solves no issues. I never hear any complaints about not being able to walk down the hill. However I have heard growing concern over the increased traffic. A second lane to support the new and future influx of people to our growing community makes much more sense for the future. Construction takes a lot of money and time. We need to make sure we are spending it while keeping the future in mind instead of waiting until it becomes an issue, and then having to throw more resources at it to redo it in 5 years.	Please ensure that the alternate pedestrian route is a safe and welcoming route in that it is well lit and visible so people will feel comfortable walking away from the car traffic that may provide the safety of a public space with lots of witnesses
Second Choice	First Choice	The population residing in Edgewood and Milton has seen a big spike with the addition of new homes and apartments recently. And there are still more apartments, housing communities, and retail spaces currently being built. 98% of these people are going to be driving and not walking. One lane roads aren't going to support that amount of traffic without severe congestion, especially during peak commuting times. Putting a significant amount of money to add a walking lane that few people will use on a consistent daily basis doesn't make much sense and solves no issues. I never hear any complaints about not being able to walk down the hill. However I have heard growing concern over the increased traffic. A second lane to support the new and future influx of people to our growing community makes much more sense for the future. Construction takes a lot of money and time. We need to make sure we are spending it while keeping the future in mind instead of waiting until it becomes an issue, and then having to throw more resources at it to redo it in 5 years.	
Second Choice	First Choice	To many cars need more lanes no one rides bikes or walks on meridian	
Second Choice	First Choice	Traffic flow on this stretch is more important than pedestrian access	
Second Choice	First Choice	This hill backs up all the time with vehicles. It is narrow and dangerous to drive with many blind corners.	
Second Choice	First Choice	Two lanes going downhill.	It's really the behavior of the citizens that are the problem. What are they even late for? 60 in a 35?
Second Choice	First Choice	Two lanes is needed all the way down the hill. The afternoon backups are crazy.	
Second Choice	First Choice	We need to free up traffic and more lanes does that	
Second Choice	First Choice	No sidewalk is needed here in my opinion. People RARELY walk, unless they're homeless. It's a steep hill.	
Second Choice	First Choice	Same as #7 above	
Second Choice	First Choice	It is too tight of an area to have pedestrians alongside of traffic	
Second Choice	First Choice	A sidewalk would be nice to have along that route.	Elements to limit speed. Keep people at 35, not 50.

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
	First Choice	best option	I don't see a lot of non-motorized users on that steep hill.
Second Choice	First Choice	This is a dangerous road to place pedestrians and bicyclists on. To create the flow of traffic adding the second lane downhill will be a significant improvement to this bottle neck.	
Second Choice	First Choice	The cost is less put in a plan for future development cost to property owners but have what is expected	
Second Choice	First Choice	Consistent in both directions.	
Second Choice	First Choice	I can't even believe people consider option A as a viable choice. There definitely needs to be a second southbound lane.	Traffic lights or a stop sign with a turn option at Meridian and 102nd Ace E is imperative for safety and convenience for residents of 102nd Ave.
Undecided	First Choice	3 lanes is a waste of resources because we already know we need 4 lanes due to traffic and growth. Why wait to do it. That's poor planning. Do it all now.	
Second Choice	First Choice	The segment doesn't seem like it has much foot or bike traffic because it is so steep. Therefore the precious extra width would be better used for southbound vehicle traffic.	
Second Choice	First Choice	There needs to be better access to Southhill too. Many people are driving through North Hill downtown Puyallup to get to Southhill. There's not good freeway exits, so I think the problem is bigger than Edgewood.	
Second Choice	First Choice	Greater flow of traffic both directions and greater safety for bicycles/peds	
Second Choice	First Choice	Without a second down-hill lane, traffic problems Sou-bound will not be alleviated, coupled with people are not naturally inclined to walk such steep hills. And traffic travels up the hill too fast for it to be a very safe pedestrian route. Chrisella Rd is a better pedestrian route, though indirect.	
Undecided	First Choice	Option A is unworkable as no one will walk or ride bikes on the hill. This does not provide any serious improvement.	More lanes
Undecided	First Choice		
Second Choice	First Choice	The commute down the hill needs an additional lane to ease traffic congestion. More of a priority than pedestrians. Currently never see people walk the street unless the occasional homeless person. There are other routes to use to get up and down the hill.	
Second Choice	First Choice		This all would be much simpler if the apartments had not been built so close to meridian. How will you account for that? Also, Meridian is very steep, will that need to be mitigated? I can't imagine how much this would cost and if it is indeed doable at none
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	I chose option B due to the fact that Edgewood is growing and will continue growing if the city of Edgewood is going to spent the money to extend the road then why would it have one lane going one direction?	
Second Choice	First Choice	with so steep a decline having a pedestrian walk alongside is potential hazard.	
Second Choice	First Choice	Need to decrease southbound bottleneck	
Second Choice	First Choice		Separate pedestrian traffic well away from vehicle traffic use alternative street for pedestrian and bicycle traffic.
Second Choice	First Choice	The need is greater for two lanes in each direction than opening adjacent pedestrian access.	We need some safety measures (lights?) for turning onto 102nd Ave E.
Second Choice	First Choice	More lanes southbound are needed.	I don't see them lighting in the drawings but I assume it is part of the plan. Lots of lighting makes a place feel safe and clean.
Second Choice	First Choice	The safety the added south bound lane outweighs the need for a sidewalk.	On the way down the hill, there is a small community of homes that have much trouble accessing Meridian (on the left, it's Lucy Lowry's neighborhood). Something is Needed there -- roundabout or ?? Seems that this would not be an appropriate spot for a light however something needs to change to allow better/safer accessibility!
Second Choice	First Choice	Increase lane amount to open up traffic blockages	
Second Choice	First Choice	Two lanes both ways allows for more traffic flow and it a better longer term option than keeping the three lanes	have to imagine adding a new lane will be very expensive and disruptive while adding the non-motorized uses (option A) would be cheaper.
Second Choice	First Choice	Cyclists will definitely utilize bike lanes in both directions of this segment. Also, the afternoon rush hour down the hill always bottlenecks with the single lane, so an additional lane would be very helpful.	
Second Choice	First Choice	Dangerous traffic not having enough room going downhill, would be improved by 2 lanes. Sidewalk seems unnecessary.	
	First Choice		
Second Choice	First Choice	Segment 2 needs a 2nd drive lane for moving southbound traffic in the afternoon. I don't see many pedestrians walking that segment but an off-corridor bike lane would be useful.	Benches along the route.
Second Choice	First Choice		
Undecided	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	We need 4 lanes all the way down to Puyallup.	
Second Choice	First Choice		
Second Choice	First Choice	I think there are fewer people walking/biking along the hill area and that the priority is to get the traffic through to the freeways or into town.	Add speed bumps reduce speeds to 25 discourage commuters
Second Choice	First Choice	The distance is too large from the bottom to the top to invite regular pedestrian traffic, as well as no businesses on the hill. Vehicle traffic will remain the biggest throughput, therefore adding a southbound lane would decrease congestion	
Second Choice	First Choice	I don't think it's necessary to have a bike/walking path down the hill. I can't imagine there's a huge need for that	Hopefully this plan includes a solution to the landslide issue on the downhill/western side where the asphalt has repeatedly cracked as if the southbound lane is going to slide down the cliff (and trees are leaning that direction too).
Second Choice	First Choice	Four lanes are a given.	We need to get the city Council to start making the people building all those apartments pay for the extra road means you can't take for homes and make it an apartment complex and expect there not to be traffic problems
Second Choice	First Choice	Its laughable to think people will use a walking path up this hill. LOL They park as close as they can to saweway to avoid walking.	
First Choice	First Choice		There should be a solid barrier between non-motorized lane and the motor lanes.
Second Choice	First Choice	Hardly anyone needs to walk this stretch of road. That's a long way up or down hill. We need more lanes instead. That'll make a larger impact.	A roundabout at 36th and Meridian would be good, as well; to resolve the problem of Chrisella coming out there. If it could help manage traffic flow, slowing speed of everyone with curvy lanes, but also keep traffic moving.
Second Choice	First Choice	I have never seen a pedestrian or bike on this hill, but lots of cars, especially during commute hours. Second option seems like it would be more practical.	
Second Choice	First Choice	With the increased traffic, and more to be added when the 528 units go in behind Northwood Elementary, there will be even more traffic moving up and down the hill. To plan for this effectively, there needs to be two lanes going up and down the hill to Puyallup in both directions. Otherwise, traffic will bottleneck at the top of the hill waiting to go down.	
Second Choice	First Choice	Visibility is poor on the tight hill corners going either direction. It would be safer for pedestrians and bikers to not be there.	
Second Choice	First Choice	I drive this segment 4+ times per week on my commute. It feels really dangerous and a lot of drivers are pretty aggressive through this segment in terms of speed. I would prefer those drivers had the option to pass others. I am also not confident anyone will want to walk or bike up that hill, although there are some residences there.	
Second Choice	First Choice	Better traffic flow.	

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	Easy Traffic flow, not many bikers or walkers would prefer want to go up and down the hill	
Undecided	First Choice	Need to get traffic moving. Now it's a bottle neck.	
Second Choice	First Choice		
Second Choice	First Choice	Needs to be 4 lanes- 2 up and 2 down	
Second Choice	First Choice	Cheaper to expand to 4 lanes now than it would be to disrupt traffic and have multiple constriction when needed to expand later	Meridian is too steep for a bicycle lane
Second Choice	First Choice	I think it would be too dangerous to have pedestrian traffic going up/down that hill with all of the truck traffic and it would create a way for more transients to come up to Edgewood.	It's clear that at the bottom of the hill there have been many accidents that have taken out the guard rails on both side. Not sure what the solution is for this but the two lane curves up the hill is a good place to race up the hill from what I've seen. Something to slow traffic may be in order.
	First Choice		
Second Choice	First Choice		Add another light with camera for speeding
Second Choice	First Choice	Double lanes going both ways are better for traffic.	Probably not enough right of way but a dedicated left turn lane would be ideal.
Second Choice	First Choice	We need 4 lanes. The traffic often backs up from Valley Ave to 24th and Meridian during rush hour	
Second Choice	First Choice		
First Choice	First Choice		It would be nice to acquire "inter urban trail" type pedestrian access for segment 2.
Second Choice	First Choice		Lighting
Second Choice	First Choice	More people drive this road than the people who would be walking or biking. Traffic going down into Puyallup is often backed up the hill into Edgewood and is a headache.	
Second Choice	First Choice	Traffic problems	
Second Choice	First Choice	Increased car capacity for better flow and funneling high traffic during rush hour up and down the hill	
Second Choice	First Choice	People don't need to walk down the hill. It only adds the chance of pedestrians getting hit by cars adding a sidewalk.	
Second Choice	First Choice	There is no reason to pretend that pedestrians are going to walk up this segment of roadway. The people that do that already use Pacific to Lakeland Hills for that purpose and it is more challenging.	
Second Choice	First Choice	A single downhill lane creates a traffic bottleneck at 36th street, the two lane downhill option eliminates this.	N/A
Second Choice	First Choice	See answer to question 8.	
Second Choice	First Choice		
Second Choice	First Choice	Choosing Option A would be a complete and utter traffic management failure. The bottleneck created driving South and having only one lane down the hill after adding two lanes in Segment 1 would be a waste and fix nothing. Besides that there is ZERO need for sidewalks on Meridian hill.	We need 4 lanes from Edgewood to Puyallup down the hill with no left turns especially in the curves as they're very dangerous. We're retired, live in Milton, have 5 children with grandkids who live nearby and have lived in the area for over 50 years. Thanks for asking.
Second Choice	First Choice		More property owner rights and input. Less developer input. All decisions should be made by those who live in Edgewood, not those who travel through, or those who live in other cities and or work here.
Second Choice	First Choice	Eliminating the two lane to one lane merge.	
Second Choice	First Choice		
Second Choice	First Choice	I like the idea of having a parallel route for non-motorized multi-use, as long as it's constructed at the same time as the roadway revisions. It would be disappointing to see the walk/bike lane take a back seat to the vehicle lanes since there is NO safe way to get down the hill without a car/bus right now.	Stop changing Edgewood.
Second Choice	First Choice	I do think there has to be options for pedestrians and bikes, but I feel it is more important to improve the traffic flow and alleviate the congestion.	Slow traffic! Decrease volume.
Second Choice	First Choice	It's a busy section of road that has really steep sections of road, so practically it doesn't seem like it's going to get much pedestrian or bicycle use. Plus the traffic jams in this section are awful, so more traffic lanes up and down make the most sense to me.	
Second Choice	First Choice		
Second Choice	First Choice	Accommodation for higher traffic volume	
	First Choice	I feel option B is safer. If you widen the road from 24 to 36th and leave the bottom to Todd Road the same, there will be a real mess traveling south out of Edgewood.	
Second Choice	First Choice	The vole needs four lanes.	
Second Choice	First Choice	We need to move more vehicles in the hill, not pedestrians or bikes.	
Second Choice	First Choice		
Second Choice	First Choice	We need 2 lanes each direction. Traffic is already slow at certain times of the day with only one lane and the area is continuing to grow.	
Second Choice	First Choice	We need more traffic capacity along Meridian to reduce congestion and reduce the need to alternate routes on the surface streets. That should be the top priority.	2 lanes each way makes much more sense to avoid a bottle neck.
	First Choice		More food trucks!
Second Choice	First Choice		
Second Choice	First Choice	Priority to motorized vehicles especially since that is a huge concern. Plus still allows for separate pedestrian path.	Bike lane, sidewalk not needed on this segment.
Second Choice	First Choice	Improved flow up and down the hill to Puyallup would benefit everyone greatly. Pedestrians given an alternate route away from the road sounds like a much more pleasant walk.	At 36th and Meridian it would be nice if west bound traffic would stop east of Chrisella road not blocking and allowing cars from Chrisella road to pass through and turn right on to Meridian.
Undecided	First Choice		
Second Choice	First Choice	Safer	
Second Choice	First Choice	There are zero businesses and no appetite from people to walk up and down that road. Focus on car traffic. More lanes will make it safer for the home owners who live off that road.	
Second Choice	First Choice	We need more vehicle movement than pedestrians	
Second Choice	First Choice	Going from two lanes to one lane would create backup traffic. No lane for left turns into houses with only one lane.	
Second Choice	First Choice	Need to allow for even traffic flow in both directions	Dog poop bag dispensers
	First Choice	Keep it a hwy not for bikes and pedestrians.	
Second Choice	First Choice	Foot traffic up the hill is nonexistent except for homeless. Sidewalk only provides area for them to set up camp.	
Second Choice	First Choice	Meridian is a highway and traffic needs 2 lanes both ways. Pedestrians and bicycles should not be on the highway for safety reasons.	Bottleneck issues will need to be addressed in some way at 36th St or the bridge going over the railroad
Undecided	First Choice	Again, this is unsafe Hill for any pedestrian to be on. There shouldn't be a sidewalk. Use the money for a 2nd lane going southbound.	
Second Choice	First Choice	Additional southbound lane should improve traffic flow.	This is not regarding the proposals put forth. I am interested in having an overpass that leads from east meridian to somewhere near key bank and area. crossing meridian is hard during very busy hours and it is not easy to either go up or down to the lights to cross. I would walk more if there were a safer way to get to the shopping area.

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	I'm unsure if the extending of 15 to 167 will alleviate the traffic issues as you head down the hill. I would choose the 4 lanes with the parallel walking path because I know the additional downhill lane will help, regardless of the 167 extension.	
Second Choice	First Choice	More traffic moving through than people walking, no one walking to Puyallup from Edgewood!!	
Second Choice	First Choice	Pedestrian lane is not needed for this part as it is a steep grade and would rarely be used. Cost versus reward will s	
Second Choice	First Choice	I think additional lanes are needed for motorized traffic. In my opinion, I think pedestrian use along that segment would be sparse.	
Second Choice	First Choice	The core Town Center area likely will not extend down the hill and instead of pedestrian walkways, extra auto lanes could help alleviate traffic from cutting through residential streets in Edgewood. A safe pedestrian walkway/trail should be added east on 36th from Meridian and down Chrisella to provide safe bicycle and pedestrian corridors connecting residential areas to the core commercial areas on Meridian.	Discourage vehicle traffic just cutting through Edgwood. Eliminate the bottleneck at SR 167.
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	There is too much traffic in the afternoon and the road gets backed up. A 2nd lane would help alleviate the back up in	
Second Choice	First Choice		Remove the blind corner. Future increase in traffic will impede safety on the undivided highway.
Second Choice	First Choice	I live on 36th and it will back up traffic at the intersection if the two lanes are not continued down the hill.	
Second Choice	First Choice	The traffic is very bad during the peak commute time in the afternoon. Adding a bike lane doesn't help that congestion.	
Second Choice	First Choice		
Undecided	First Choice	Not sure how functional a multi-use non-motorized zone would be for that section of the road. How many people are going to use it to walk or bike up the hill? With how bad the traffic backs up going down the hill in the evenings it would make sense for 2 lanes going down instead of a multi-use non-motorized zone that doesn't really take you anywhere.	
Undecided	First Choice	Don't really like either. I think the problem is that traffic piles up at Valley Ave.. Until that's solved, the additional lane is just temporary car storage capacity.	
Second Choice	First Choice	Safety for bicyclists and pedestrians	
Second Choice	First Choice	Four lanes is almost always preferable to three lanes of travel.	
Second Choice	First Choice	Option B, first choice: Two lanes going South would help with evening traffic. Option A, Second choice, I wouldn't feel safe walking/biking along traffic on that hill; too many people speeding up it.	
Second Choice	First Choice	The traffic on this road going south is always HORRIBLE. It absolutely needs a second southbound lane to decrease congestion.	Change the 24th and Meridian intersection to give better line of sight when making a right turn going south on Meridian
Second Choice	First Choice	Accommodating the growing number of vehicles for efficient traffic flow is very important; more so than adding sidewalks through that stretch of the road.	
Second Choice	First Choice	I like the idea of the walking/biking path down the hill, but I worry about how the merge at 36th would impact traffic.	
Second Choice	First Choice		
Second Choice	First Choice	There seems to be little need for pedestrian traffic down that hill. Also the road gets very icy in winter and having the pedestrian travel area outside the buffer/shoulder area seems like a much safer choice.	
Second Choice	First Choice		
Second Choice	First Choice	I do not see option A as a realistic need. Walking and biking between these two points seems unsafe given the conditions of the road's curves and slope.	
Second Choice	First Choice		
Second Choice	First Choice	Forget adding a sidewalk. No one is going to walk along this roadway!	
Second Choice	First Choice	Traffic in the afternoon going south at times takes 45 - 60 minutes from 24th down the hill to Puyallup	
Second Choice	First Choice	Really, people going up or down that road on a bike or walking, are you insane?	No sideways on hill, too dangerous for pedestrians and allows for increased potential of homeless or walking travelers. This appears as an invitation
	First Choice		
Second Choice	First Choice	Not many people walk up that hill but when they do it is extremely dangerous. Rather than a non-motorized lane I believe an improved shoulder or buffer area would be a better use of funds as well as give some safety for those adventurous to attempt walking up the hill.	
Second Choice	First Choice		
	First Choice	Realistically foot traffic (and bikes) should be separated in a more realistic way from cars coming downhill. They exceed the speed limit as a rule and there are several "almost blind" curves that would take only a distracted driver answering or sending a text or looking away from the road momentarily for any other reason and then Bam! The pedestrian or biker would pay the price. This is NOT a safe stretch of road to have other than vehicles with air bags so close to each other. The Option B Off-Corridor parallel route for non-motorized users is the Safe and Sane plan.	
Second Choice	First Choice	Less traffic going southbound	Add more roundabouts, reduce speeds, and ticket speeders and aggressive driving.
Second Choice	First Choice	Double lanes going down would help the most because that's where traffic backs up the worst.	
Second Choice	First Choice		I find questions 12-17 inappropriate and therefore I answered them incorrectly. What does my income have to do with anything? Will you give them less weight if I'm a woman, or a man? Will you take my answers into consideration if I'm black, rather than hispanic? Just off putting to see these types of questions being asked.
Second Choice	First Choice	The way it wind up the hill is too narrow. Any design must anticipate how the SR167 extension will impact traffic at the intersection of Valley Ave and Meridian. This traffic backs up the hill almost every weekday.	I would like to see a non-motorized buffer added to Option A (in place of what looks like a green buffer) so that cyclists have a safe place to ascend this steep incline and not have to pass pedestrians on the sidewalk.
Second Choice	First Choice		
Second Choice	First Choice		Less traffic lights. Roundabouts seem to work well in other cities.
Second Choice	First Choice	Hardly anyone walks this hill - it sucks to bike and walk. Most bikers will go down Milton way or down Yuma because it's not as steep and more scenic. Traffic is a problem and current amount of lanes won't be good long term.	
Second Choice	First Choice		
Second Choice	First Choice	Having 2 lanes each way would help with traffic and hopefully safety on the hill.	
Second Choice	First Choice	I don't see walkers using this often. Seems dangerous to walk the road even with the improvements	
Second Choice	First Choice		
Second Choice	First Choice	Narrowing traffic from 2 lanes to 1 going down the hill creates a bottleneck. That stretch is not multiuser friendly.	
Second Choice	First Choice	We need the extra lane to improve congestion. Example: one afternoon it took me one hour to go from 32nd ave down Meridian to the Puyallup Fairgrounds area. That is approximately 4 miles. Something needs to be done.	
Second Choice	First Choice	More lanes going down the hill will help the most with traffic back-ups. Keeping one lane going down Meridian doesn't solve anything.	
Undecided	First Choice	The funnel effect of single lane traffic will not rectify your traffic burdens we already have.	

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Undecided	First Choice	People should not be walking or riding a bike on this dangerous road, also invites transient population up the hill.	
Second Choice	First Choice	Option A does nothing to address the problem of a vehicle backup going down the hill on meridian towards Puyallup.	
Second Choice	First Choice	I don't envision much bike traffic or pedestrian traffic going up and down the hill. Until the RR bridge is widened, nobody will be going any further on foot.	
Second Choice	First Choice	I would love there to be a sidewalk, but I can't think of that many people would walk that way and the flow of traffic is much more important and will serve a greater number of people. Plus walking on a sidewalk on that road would be scary.	Remove the black metal fencing rail along Meridian and definitely do not extend it along the new roadway changes. The black metal fence railing is a significant safety hazard and should no longer be a part of the roadway. There have been numerous accidents and injuries because this railing blocks a safe view for vehicles entering the roadway. Please find a new configuration that allows for a clear view for all vehicles entering the roadway.
Second Choice	First Choice	I believe very few residents of edgewood would walk down the large hill to puyallup. I believe 2 lanes down the hill would help ease the backup created in edgewood from the intersection of Valley Ave in the evening between 3pm to 6pm.	
Second Choice	First Choice	Highest priority should be to add a lane. During busy times, the traffic can be very backed up through these sections. Many of the drivers are just passing through. This causes massive delays and backups for those of us that live here. Let's get that traffic moving and out of our town so travel is easier and better for us that live here.	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		Two lanes southbound with option A.
Undecided	First Choice	Due to increased traffic volume and safety concerns over the years of only having one lane s/b down the hill I think if it can be addressed to it. From personal experience, drivers head downhill tend to want to push others in front of them to go faster and faster thru the curves, while following way too closely. It would be nice to have a lane to get out of the way.	
Second Choice	First Choice	The sidewalk wouldn't lead to anything as there are mostly warehouses at the base of the hill.	
Second Choice	First Choice		Option B is the only one that makes sense. We need to alleviate traffic, not waste valuable space on bike/pedestrian lanes.
Second Choice	First Choice	Makes safe as possible	
Second Choice	First Choice		
Second Choice	First Choice		Possibly a roundabout at 36th. It's a very dangerous intersection.
Second Choice	First Choice		
Second Choice	First Choice	Need two lanes to support traduce demand in both directions	
Second Choice	First Choice	I want to have more walking space where I live. But I'm not super likely to walk down the hill.	
Second Choice	First Choice	Downhill backs up the hill, which up to 30 minutes to get down at times.	
Undecided	First Choice	I worry about the safety of pedestrians on the hill and think it's important for snowy/icy/rainy days to have multiple lanes going up and down	
Undecided	First Choice		
Second Choice	First Choice	Steep hill and treacherous. Improving the commuter traffic in this section seems more important.	
Second Choice	First Choice		
Second Choice	First Choice	Option B makes more sense for traffic flow.	
Second Choice	First Choice	Property to build roads is rare going down the hill. Build a bike/pedestrian lane that will not be used as intensively somewhere else.	
Second Choice	First Choice	Traffic can be terrible because of the current one lane setup. To keep one downhill lane in an "upgrade" project makes no sense	Stop trying to grow in an area that is not designed for growth. Listen to the people that live here we want a small town the whole reason for moving here.
Second Choice	First Choice		
Second Choice	First Choice	Don't need sidewalk. Need more lanes instead.	
Second Choice	First Choice	Improve safety for bicyclists with separated corridor. Improve traffic through put going down hill.	
Second Choice	First Choice	It won't be worth it to construct it for pedestrians.	
Second Choice	First Choice	N/A	
Second Choice	First Choice	We need more lanes going up and down the hill. Traffic gets too congested.	
	First Choice		
Undecided	First Choice		Try to prep it for the bridge to get upgraded and widened.
Second Choice	First Choice	Consistent look and keeps traffic flow moving to have two lanes both ways	
Second Choice	First Choice	Evening commute traffic needs option B.	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	the road up and down the hill is horrible and can be scary.	
Second Choice	First Choice	keep it symmetrical.	
Second Choice	First Choice		
Second Choice	First Choice	Option B accommodates more vehicle traffic and that is where the volume of transportation is.	
Undecided	First Choice		
Undecided	First Choice	No one is going to walk up meridian even if there is a sidewalk. That's silly and a waste of tax dollars. I might use it if it were a safe and protected bike path. But that's a stretch too.	
Second Choice	First Choice	Safer	Please ensure access to public restrooms in the area. Walkers and bikers need access to restrooms.
Second Choice	First Choice	I don't think this road is safe enough for anyone to walk on.	As mentioned above, improved walkability throughout town would be great. We live on 48th and it would be nice to have a safe connection to the parks, schools and commercial up north.
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		If adding an extra lane is this going to cause a worse bottle neck back up at the bridge?
Second Choice	First Choice		
Second Choice	First Choice	A lot less traffic blockage	It would make more sense to have two lanes up and two lanes down Meridian, however, if this is done, I do believe there should still be access for pedestrians to walk, ride bikes, etc. up and down the hill.
Second Choice	First Choice	Need to allow for more traffic off the hill so they stop taking Chrisella.	
Second Choice	First Choice	More lanes of traffic keep vehicles moving and reduce congestion	
Second Choice	First Choice	No one walks down this hill. Too much traffic to make it enjoyable.	
Second Choice	First Choice		There needs to be a barrier dividing directions of travel for cars. Also, a staging area for road closed signs in the event of snow so any police officer can close the hill to avoid bottleneaking traffic stuck on an icy hill
Second Choice	First Choice	We need more room for traffic on the hill. It would be too dangerous for pedestrians.	
Second Choice	First Choice		

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	I don't think bicycles or walkers need to be going down Meridian hill.	
Second Choice	First Choice	I think an additional downhill lane would help the late afternoon traffic backup down the hill.	Very difficult to make an informed choice with the given information.
Second Choice	First Choice		
Second Choice	First Choice	Less backups southbound during rush hour and safer for bicyclists and walkers	
Second Choice	First Choice	Option B is the best choice. This corridor is not set up for walkers. Traffic is heavy and having one lane in one direction to allow for walkers does not seem to be the answer to improve traffic flow.	
Second Choice	First Choice		
Second Choice	First Choice		
Undecided	First Choice	DO NOT BOTTLE NECK WITH 3 LANES!	Center barrier going down the hill
Second Choice	First Choice		
Second Choice	First Choice	Unfortunately with so much growth there needs to be the 4 lanes on meridian. The 4 to 3 currently has already cause near and also accidents with cars trying to get a head of everyone else and trying to cut back in as the road goes back to 3 lanes. I drive this road every day and these are all people that are more important or in a big rush, these are not people that didn't realize the road goes back to 1 lane south bound. There are markings letting everyone know to get in the left lane unless you are going to 1 or the 3 companies from the corner to where the lane becomes 1 again. From 4 to 5:30 or so I completely avoid south bound meridian it can take 10 to 15 mins to go from 24th to 36th.	
Second Choice	First Choice	I don't think anybody should be going up and down Meridian hill using a bike or walking. No one would use this sidewalk for exercise as the incline is way too steep. It will only open opportunities for crime coming from both federal way and Puyallup/Tacoma communities	2 lanes down and 2 lanes up would be helpful - especially if the 2 lanes up continued on between 36th and 24th instead of converging shortly after the light on 36th. Same with coming from 24th to 36th and the lanes converging shortly after the light on 24th. Both situations create problems with people trying to race around getting in front of others. It is especially bad with people trying to race others coming up the hill. I have lived here for 10 years now and how fast people come up the hill is unacceptable and dangerous. Serious recs all the time from people speeding excessively. My child's daycare is located in a house half way down the hill and sometimes it feels like I'm taking my life in my hands trying to get in and out of their
Second Choice	First Choice	I'm torn between these two. That road is too windy and has no businesses and not very much residential area. I don't think it's a road to be walked on. Yet, once in awhile we will see sketchy looking people walking it. Their safety is at risk.	What can be done to discourage the out of area traffic from moving through Edgewood creating the problem?
Second Choice	First Choice	Preference to increase capacity and widen the road for safety.	
Second Choice	First Choice	Very few people will walk up and down meridian hill. Better use for more lanes of traffic versus a sidewalk.	
Second Choice	First Choice		Keep the bureaucrats out of any planning. Edgewood has largely been destroyed with the help of it's current and past councilmembers who have vested interests to crowd our beautiful main street with apartments I can touch when I roll down the window and stick my hand out. I moved to Edgewood before it became a modern Federal Way.
Second Choice	First Choice	Bottle neck southbound meridian at 36th.	
Undecided	First Choice	We need more vehicle capacity. But the hill should have a sidewalk also.	
Undecided	First Choice		
Second Choice	First Choice	More capacity	
	First Choice	Traffic down the hill is terrible and will only get worse if no additional lanes are created	
Second Choice	First Choice	I prefer Option B because adding a sidewalk in Segment 2 will increase the opportunity for homeless traffic coming up the hill from the Puyallup Valley and jeopardizing community safety. Right now it's not as accessible which has cut down on our homeless issue on North Hill and making our community safer.	
Second Choice	First Choice		
Second Choice	First Choice	More lanes, better for traffic	
Second Choice	First Choice		
Second Choice	First Choice	Does not sound safe at all to have space that encourages people to walk or bike down the road...there is no space as is for emergencies	
Second Choice	First Choice		As stated above, the trail on 36th that ends at 110th needs to be connected to meridian for pedestrian access and safety.
Undecided	First Choice	Auto is far more productive and better for environment. Too much fuel wasted sitting in traffic. This is not practical for biking or walking path. The only closest place to go is Fred Meyer. No one is going to carry groceries home from there.	
Second Choice	First Choice		
Undecided	First Choice	We need more room for vehicle traffic and not foot traffic. The amount of money spent for foot traffic does NOT make financially logic.	
Second Choice	First Choice		
Second Choice	First Choice	Currently can't get into Puyallup during commute times...stuck in backup traffic on the hill	
Second Choice	First Choice		
Second Choice	First Choice	Not enough people are going to use the sidewalk in that area	
Second Choice	First Choice	The need for 2 lanes going in each direction	
Second Choice	First Choice		
Undecided	First Choice		A barrier between uphill and downhill lanes. The addition of a second downhill lane with safety barrier and buffer is most important in modifying this section.
Second Choice	First Choice		
Second Choice	First Choice	Car traffic is much more significant and this road needs two lanes both way. Bikes and pedestrians would rarely use this section of road no matter what.	
Second Choice	First Choice	More lanes are needed for future growth	
Second Choice	First Choice	I don't think many people will walk up and down Meridian hill, as compared to 24th to 36th.	What bridge are you talking about over the railroad? Does this segment plan on building a bridge?
Undecided	First Choice	The Meridian Hill is steep and curvy and people/bikers are unlikely to make use of a sidewalk. A pet or child could run into coming traffic and bikers meeting pedestrians is just looking for trouble.	
Second Choice	First Choice	Where and what exactly is this "off corridor" non motorized path further to the west?	
Second Choice	First Choice		
Second Choice	First Choice	Need two lanes going down is needed. Prevents back ups.	With the steep and curvy section south of 36th Street, I don't believe there is a need for a non-motorized zone. There are not many residents in that area and money could be saved with eliminating that zone and eliminating the cost of maintaining that area.
Second Choice	First Choice		Nope see above this is a bad idea turning it into south hill! It
	First Choice	The least invasive to get the job done the quickest, so it doesn't impact us for too long. The last time meridian was torn apart. Had to do it twice instead of doing everything the first time.	
Undecided	First Choice	Ultimately, North Hill will end up like South Hill. Traffic will overwhelm a three lane very quickly. Other options for ped/bike.	
Second Choice	First Choice		
Second Choice	First Choice		

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Option A	Option B		
Second Choice	First Choice	Option B allows for two car lanes in each direction, which should be a priority over a sidewalk to nowhere.	
Second Choice	First Choice		
Second Choice	First Choice	Traffic awful trying to get to puyallup after 4pm	
Undecided	First Choice	i am not sure how safe it would be to have a sidewalk in this area of the road.	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	Prioritize 2 lanes traffic both directions vs sidewalk for this portion of meridian.	
Second Choice	First Choice	no sidewalks down the hill. we need two lanes going each way to eliminate traffic	
Second Choice	First Choice	Traffic flow both directions for morning/afternoon commute.	
Second Choice	First Choice		
Second Choice	First Choice	The traffic movement is more important than adding other items that will not get used.	
Second Choice	First Choice	Pedestrian from Edgewood not as important along this route	Use the funds to improve roads around Edgewood so commuters will drive around and not through.
Second Choice	First Choice		Use the funds to improve roads around Edgewood so commuters will drive around and not through.
Second Choice	First Choice	I don't think people should be walking on this section of road. Way too dangerous and curvy.	
Undecided	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	Widening road seems more valuable	
Second Choice	First Choice	Going down the hill backs up so badly.	A partition between oncoming traffic. It is dangerous because cars go above speeding limit
Second Choice	First Choice	Increase flow of traffic	Add lights or roundabouts to slow traffic down going northbound. Add some type of barrier between lanes.
Second Choice	First Choice	Priority to traffic congestion.	
Second Choice	First Choice	It needs two lanes in the evening southbound.	
Undecided	First Choice		
Second Choice	First Choice	South bound afternoon traffic is a bigger hassle than northbound in the morning.	
Second Choice	First Choice		
Second Choice	First Choice	Traffic flow is more important heading into Puyallup. Not many people would walk that corridor.	
Second Choice	First Choice		NO MORE APARTMENTS!!! YOU'RE ADDING TRAFFIC.
Second Choice	First Choice		
Second Choice	First Choice	I don't walk down the hill	
Second Choice	First Choice	For safety, I believe the city's plan to "create an off-corridor parallel route for non-motorized users farther west" is the best.	4 lanes and sidewalks. Maybe another light to deter all the puyallup residents from using meridian.
Second Choice	First Choice	Three lanes is not enough capacity. I live on that stretch and it is hard to pull out into a signal lane..	
Second Choice	First Choice	Again, almost nobody will be biking or walking on this section of road.	The City/DOT need to look at how the redesign fits into Edgewood's interest in pedestrian access to walking trails in/along the Edgewood Canyon up to the park at 36th street
Second Choice	First Choice	Better traffic flow.	A second southbound lane or continuing the 3rd lane to Todd Rd would require widening or building a new bridge over the RR and be reduced to one lane either at the RR overpass or Spencer Street. That doesn't sound like a good investment especially with the SR167 Freeway extension project that likely improves operation of the Meridian/Valley intersection and reduces the PM peak hour delays SB from 36th.
Second Choice	First Choice	Need to keep traffic free and clear going up and down the hill. Along with keeping the bikes and non motorized transportation away from the lanes of traffic	
Second Choice	First Choice		do everything you can to minimize potential head on collisions
Second Choice	First Choice	Keep bicycles and vehicles as far apart as possible.	
Second Choice	First Choice		
Undecided	First Choice	Move traffic	
Second Choice	First Choice	2 lanes each way is more useful than anything else you could do.	
Second Choice	First Choice	More lanes in option 2	could potential foot traffic be included with the Wolf Point Trail?
Second Choice	First Choice	I have been driving down that hill for years and there should not be pedestrian traffic, very dangerous for someone to be waling down/up that hill.	
Second Choice	First Choice	Auto traffic safety and flow need to be a priority through here. Pedestrian traffic again needs to be moved away from the primary road as it would only create additional safety concerns.	
Undecided	First Choice	Prefer.	do nothing
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	That is a crazy road for pedestrians even with a sidewalk. A walking path would encourage the homeless down by the river in Puyallup to venture up the hill easier which I guess would be okay but we have no services here for them. Plus, the bottle necking to one lane going downhill is crazy sometimes- that lane seems so narrow when you are on a bus. Two lanes down hill would be ideal.	Barrier between the sidewalk and the road (metal barrier or concrete).
Second Choice	First Choice	traffic flow s most important	Sidewalk necessary
Second Choice	First Choice		I would prefer the barrier be between the north and south lanes instead of on the edge of the road. This road is so twisty and people drive fast. There needs to be a barrier between the lanes.
First Choice	First Choice	safety	
Second Choice	First Choice	Need to fix getting traffic out of edgewood. That should be the number 1 priority. people will drive through regardless. If you can solve the traffic flow another way, then great, if not, we need to provide the lanes to get the flow out.	
Undecided	First Choice		
Second Choice	First Choice	There is so much traffic with all the apartments. Need two lanes in both directions	
Second Choice	First Choice	We need more lanes to accommodate the traffic.	
Second Choice	First Choice		
Second Choice	First Choice	This corridor is too dangerous and steep for pedestrians. It should be expanded to support the heavy vehicle traffic in this section.	
Second Choice	First Choice		
Second Choice	First Choice	It needs 2 lanes both ways	
Second Choice	First Choice	Neither are good honestly. But I would rather slide or be hit by another vehicle without being worried about hitting the pedestrians.	
Second Choice	First Choice	Realistically, it's a steep enough hill that I don't expect much foot traffic so having the sidewalk seems like it would be a waste of space.	Can a bike lane be added?
Second Choice	First Choice	Traffic is backed up heading south between 3pm and 6:30pm from 36th all the way down to Valley on week nights.	

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Second Choice	First Choice	Choice 1 isn't much different than it is now	A divider would feel safer
Second Choice	First Choice	Two lanes both direction to improve traffic flow durin commute times. Downhill in evening hours is terrible	
	First Choice	I choose option B. 2 lanes up and 2 lanes down.	
Undecided	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice		I would say, make uphill one lane. It may slow down the people that fly uphill. Or widen one lane uphill. And no left turns either way. Especially now that they are building more homes off the hill.
Second Choice	First Choice		
Second Choice	First Choice	too busy/steep of a street to be bicycling or walking. not much foot traffic.	
Second Choice	First Choice	high traffic area and large/incline hill, I don't think too many people will be going up and down it outside of a car; better use is for traffic.	
Second Choice	First Choice	I am supposing that fewer people walk or bike up and down the hill, whereas car traffic is always enmass.	Safer access to Meridian Court off of Meridian needs to be included. There are too many accidents when residents try to enter/exit this side street.
Second Choice	First Choice	We need more lane capacity down the hill. Due to grade I don't think many would walk bike in the second half, compared to 24th to 36th where we would see more walkers.	Considering how his connects to the new 167. What kind of transit facilities will be available for bikers or walkers in this area. How will the bike lanes connect to puyallup trails.
Second Choice	First Choice		More street lights for better visibility- that stretch of road is very dangerous and dark. Better lighting will help mitigate
Second Choice	First Choice	Frees up traffic heading southbound.	
Second Choice	First Choice	I don't see often, nor foresee anyone, walking/biking up/down this hill. What I do see and experience is lots of roadway traffic.	
Second Choice	First Choice	Cost. Property tax hikes	
Undecided	First Choice	I'm a little tired of ranting. Please see the manifesto of vitriol written in other sections.	
Second Choice	First Choice	No one should walk that road.	
Second Choice	First Choice	I believe to improve the corridor and create improved safety features is paramount primarily for vehicular travel, which is the highest users of the corridor. Also, that approach could assuredly get the project planned, permitted, and constructed sooner, compared with more studies and greater cost considerations for pedestrian, biking, and tree planting facilities.	
	First Choice		
Second Choice	First Choice	With all the curves on the hill it is not smart to include walking traffic. How many times have crews been down that hill to replace guardrails that have been struck by cars? Once they are fixed it gets hit again shortly after.	Reducing traffic down the hill should be the primary goal
Second Choice	First Choice	The hill is so steep there will be few people walking it. More traffic relief with four lanes.	See note above about intersection with 36th, Meridian, and Chrisella.
Second Choice	First Choice	I imagine this would best alleviate traffic.	
Second Choice	First Choice	That area needs to focus on moving vehicles not people	
Second Choice	First Choice		Again added sidewalks throughout Edgewood especially on connecting streets to Meridian
Second Choice	First Choice	Traffic continues to be congested going southbound to 167. Our town can't move during peak times. Adding the additional lane provides overflow to occur on the hill and not back up into our town.	Railroad crossing bridge needs to be widened to four lanes.
Second Choice	First Choice	A fourth lane is needed.	
Second Choice	First Choice	Assuming option 1 = A and option 2 = B.	
Second Choice	First Choice	I'd rather improve the traffic flow. There are better options for walking areas.	
Second Choice	First Choice	Higher vehicle throughput.	
Second Choice	First Choice		
Second Choice	First Choice	A sidewalk would be pretty wasted in this area. having the double lanes both ways would be future-proofed for future expansion.	
Second Choice	First Choice	Bikes and pedestrians in that section of road is a dangerous idea. An additional downhill lane would alleviate rush hour backups.	
Second Choice	First Choice	I don't think it's a walkable or even bike riding stretch.	
Undecided	First Choice		
Second Choice	First Choice	Pedestrian safety seems to be prioritized with option 2.	Traffic light added ot Meridian and 32nd Street. With additional of park makes trying to make a left on Meridian impossible
Second Choice	First Choice	Safety	
Undecided	First Choice	With the extension of SR 167, more people may need access to meridian going downhill	
Second Choice	First Choice	It needs to be done right the first time. We need to look ahead for the future. It will not be any cheaper to add a lane in the future.	
Second Choice	First Choice		
Second Choice	First Choice	I really don't think there needs to be a sidewalk in such a large hill.	
Second Choice	First Choice		
Second Choice	First Choice		
Second Choice	First Choice	An extra southbound lane is needed more than pedestrian space on this road- it gets very backed up going down the hill	Its gonna cost a lot of money, keep it simple. Don't be wasteful.
Second Choice	First Choice		
Second Choice	First Choice	Increased traffic capability	
Second Choice	First Choice		
Undecided	First Choice	We absolutely need two lanes going each direction on the hill to Todd Rd.	
Second Choice	First Choice		As stated earlier, we could make the hill part with a reversable lane timed to commuter traffic. When the light rail is finally accomplished, we should have bike and pedestrian modes out of Edgewood that can get people to the light rail stations.
Second Choice	First Choice	The road going down into Puyallup gets severely backed up after work and during Fair time. Two lines on each side would be better.	
Second Choice	First Choice		
Second Choice	First Choice	Need more lanes going up and down the hill.	
Second Choice	First Choice	2 lanes going southbound will help with traffic.	
Second Choice	First Choice	Getting more lanes in for traffic is more important to me than pedestrians and bikes.	
Second Choice	First Choice		After the public vote of 73 percent against a utility tax and then have the council pass the tax I believe what I have to say will not be of any importance. And please do not ask my race as it human. The demographic information you request is insulting and prejudicial. This is an insulting waste of time.

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Undecided	First Choice		If space were possible, splitting the uphill and downhill lanes into separate streets would be lovely.
Second Choice	First Choice	Adding another drive lane going south of 36th would be the only option I support as it would reduce the bottleneck of traffic going south.	If more turn-offs are added to the south direction, Option B would improve safety.
Second Choice	First Choice		Option B would not improve traffic through Segment 2 as the bottleneck off the hill occurs down street at the intersection of Meridian and Valley Ave.
Second Choice	First Choice	Traffic is bad in both directions at times. Focusing on vehicle throughput should be a priority, especially if a separate pedestrian path was created to the West in Option B.	Don't put bikes and pedestrians close to the hill traffic! People are not smart enough to stay out of traffic anymore. Especially young people sadly
Second Choice	First Choice	2 traffic lanes down to one lane will cause issues	
Second Choice	First Choice	Having two lanes each way would help traffic congestion in morning and evening.	
Undecided	First Choice		
Second Choice	First Choice	I have been driving on the meridian corridor for 20+ years and RARELY see anybody walking it or especially biking it. The need for this segment is to get more vehicle traffic through faster.	
	First Choice		
Second Choice	First Choice	Don't see the need for a sidewalk down Meridian. The road is too dangerous already to have pedestrians and bikes in it.	
Second Choice	First Choice	A sidewalk and bike lane is not necessary in that portion of the road. It's far too steep and long and will rarely be used by members of the Edgewood community.	
First Choice	Second Choice		
First Choice	Second Choice	I think Option B is infeasible due the natural occurring bottleneck at the viaduct over the railroad tracks. I also think accidents are more likely to occur with passing downhill.	
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	Non motor users cannot currently use the hill. This will give them the ability.	
First Choice	Second Choice	because I live on 102nd and have always felt trapped in here with no option but a car to get out	
First Choice	Second Choice		As I mentioned above, the most important improvement to Segment 2 would be a barrier between the uphill and downhill
First Choice	Second Choice		
First Choice	Second Choice	I live on 102nd E - we are trapped on this street unless we have a car (thus my answers above that I only drive). I would love to be able to walk up to the park and city.	
First Choice	Second Choice	It would be very sad to not see an option for pedestrians and cyclist. This would set the tone for the future of Edgewood as not being a friendly place for walkers/joggers/bicyclists.	
First Choice	Second Choice	More lanes just means more cars will travel this way!	Walkers should have a off road trail if this is something the public is asking for. Not sure anyone has every thought this was a road that walking makes sense on. A trail makes sense that would parallel the road but not be connected to it. May work for bikes as well.
Second Choice	Second Choice	More space for cars	
First Choice	Second Choice	while it makes sense to widen the southbound lanes, especially during afternoon commute times, adding the other non-motorized uses is slightly more critical, imo.	
First Choice	Second Choice	safer option	
First Choice	Second Choice	We need sidewalks!	
First Choice	Second Choice	People will walk more if you make space for them to do so safely. It's healthier for people and healthier for the environment. There should be a solid barrier between car lanes and the non-motorized lane.	
Second Choice	Second Choice		
First Choice	Second Choice	The two main roads that get you up North Hill (Meridian & Chrisella) are not safe for walking, biking etc. A sidewalk would make sense	
First Choice	Second Choice	The sidewalk for pedestrian traffic gives people more commuting options that does not include strictly driving everywhere.	
Second Choice	Second Choice	Leave it alone. We don't need to change the current street.	
First Choice	Second Choice	I live along this section and I really prefer some kind of walkability/bikeability here. There are a ton of kids who would benefit from walking up to the park or to see friends or even walking to and from school in these neighborhoods. With the curves in the road I would be concerned about the speed traveled if the area was opened up to four lanes.	
First Choice	Second Choice		If option B is chosen, could there be a sign at the top and bottom of hill that says, "No pedestrian traffic"? This road is too windy and dangerous for pedestrians.
First Choice	Second Choice	Would be great to have a walking option	If there is a way to straighten the road more that would be awesome for safety especially in bad weather
First Choice	Second Choice		Will the railroad bridge at the bottom of the hill be removed and replaced?
First Choice	Second Choice	One lane heading down/ south seems to work fine. Just need pedestrian sidewalk	
First Choice	Second Choice	It might be nice to provide a way for people to walk to Puyallup. Going down the hill in one lane has been easier because people have to pay attention and slow down. If there were two roads heading south, seems like more accidents could easily occur as people speed down or try to change lanes, etc. I know the hill backs up during commute hours but it's safer with a single lane heading south.	
First Choice	Second Choice	I like the sidewalk but would many people use it?	
First Choice	Second Choice	Adding another lane without a barrier just seems like that's an accident waiting to happen	
First Choice	Second Choice		
Second Choice	Second Choice		
First Choice	Second Choice	Safer sidewalks for people walking the hill.	I would like to see added safety measures (turn lane) for cars entering and exiting driveways and streets along Segment 2 to increase motor vehicle safety.
First Choice	Second Choice	This stretch of road is windy and scary! If you can't straighten the lanes, then keep as is and add bike lane.	
First Choice	Second Choice	I think it's important to have the sidewalk easily accessible from the roads. I may be comfortable with Option B, but I'd need to see exactly where the off-corridor parallel route for non-motorized users will be and how much difficult it will be to	
First Choice	Second Choice	I am aware of the costs associated with widening this segment thru this terrain and prefer the least cost option.	
First Choice	Second Choice	Safety of pedestrians and cyclists	
First Choice	Second Choice	There needs to be accommodations for bikes and walkers on that road. Currently none. Reducing the speed limit would also help. I know the speed limit is 35 on that hill but I drove it yesterday and cars were passing me at 60+ MPH.	
First Choice	Second Choice		
First Choice	Second Choice		

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
First Choice	Second Choice		
First Choice	Second Choice	Don't see how an additional lane going southbound is going to make a difference when there is only a two lane bridge eventually unless you plan to rebuild the bridge. If cars have to merge into one lane at the bridge it will just cause back ups anyway. Pedestrian access into Puyallup would be nice.	That is an incredible view sod Rainier there coming down the hill. Would be amazing to have a pull over or some way to allow folks to enjoy it
First Choice	Second Choice	Adding the option for non-motorized or bicycles is ideal due to the necessity of those who don't always drive needing to get up/down the hill	
First Choice	Second Choice	Although it would be nice to have 4 lanes, we really need sidewalk to keep people safe who walk there.	Too many wrecks on this rode with 3 lanes. A barrier between lanes would be better for all and skip the walking path.
First Choice	Second Choice	Would rather have a multi-use lane than two southbound vehicle lanes.	
First Choice	Second Choice		
First Choice	Second Choice	Downhill doesn't need another lane. It would result in those unsafe few causing incident.	Stop building multifamily housing. The extra people and traffic are bad enough as it is. We don't have the infrastructure for it - not enough grocery, shopping or dining aside from fast food for the people we have. We don't need more.
First Choice	Second Choice	More esthetic. Better for bikers and walkers.	
First Choice	Second Choice	Prefer not to create a thorough fare for traffic to go north south through the city.	
First Choice	Second Choice	There have to be safe transportation options for cyclists and pedestrians. Also dog walkers and wheelchairs and strollers need to have a wide sidewalk area.	
First Choice	Second Choice	Need area for walking but not having 4 lanes isn't ideal.	
First Choice	Second Choice	So there is a safe way for people to walk or ride their bikes up and down the hill.	
First Choice	Second Choice		
First Choice	Second Choice	A sidewalk in segment 2 would be welcome. Not infrequently I see people walking on the side of the road at night which is of course extremely dangerous for the pedestrian (and also for the driver). A physical barrier between the road and sidewalk would be very important. I think the major bottleneck for traffic is the stoplight past Todd road, not the single	Need some type of divider between opposite direction lanes. It is scary driving on inner lane around the curves
First Choice	Second Choice	Option #2 looks SPENDY	
First Choice	Second Choice	There must be pedestrian and cyclist access to the roads	
First Choice	Second Choice	There needs to be a safe place for pedestrian traffic!	
First Choice	Second Choice	Not sure 2 lanes going down are necessary or safer. Like the idea of a place for pedestrian traffic	
First Choice	Second Choice	We need a safe non-motorized option.	
First Choice	Second Choice	Traffic moves fine down the hill but there is no place to walk	
First Choice	Second Choice	Sidewalks going down the hill are needed. City fathers made Edgewood a city fit for renters, and you see apartments everywhere but no sidewalks. Add safe sidewalks going all the way down to Todd. Keep the sidewalks well-separated from the speeding traffic by using a green belt. Make sure they are separated from speeding traffic by using a large green belt. Allow bikes to ride on the sidewalk because bike lanes on the road are silly ideas that Seattle dreams up--look at the number of bike riders killed on bike lanes that are right next to speeding cars !!!! Last I looked, the bikers do not have air	Will the bridge over the train tracks just north of Todd road be replaced?
First Choice	Second Choice		Not every road needs to be accessible to walkers or bikers unless it is designated trails are far enough away from traffic . Then make sure these trails are accessible to everyone. Meridian Hill is just that...it's a hill!
First Choice	Second Choice	Giving the walking option will give a sense of Home to our area. Not... a prettier Everett	Any construction on segment 2 WILL NOT MATTER if you don't widen the bridge at the bottom!!
First Choice	Second Choice		
Second Choice	Second Choice	Anything less than 2 lanes in each direction is short sighted toward future growth and demand. I live near 36th and meridian and have witnessed traffic backed up to 36th various times in the 10 years I've lived in Edgewood.	Unless you do something with the bridge at the bottom of the hill adding another lane isn't going to do much. You need to increase the bridge to four lanes.
First Choice	Second Choice	There are currently zero safe ways for pedestrians to walk from Edgewood to Puyallup. This needs to be a priority	
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	I see the value in adding a second downhill lane, but I think it would be nice to future proof this corridor with some pedestrian accessibility, so option A eeks out for me, but either way this will be a great improvement.	
First Choice	Second Choice	I believe improving the current 3 lanes of traffic would be more feasible and cost effective.	
First Choice	Second Choice	I prefer quality of life in my neighborhood over cars and traffic.	
First Choice	Second Choice	Must include sidewalks & bike access that is physically isolated from the road.	Not sure why this is being discussed as at a WashDOT town hall meeting years ago they stated this ship has long sailed for widening Meridian down the hill
First Choice	Second Choice	Sidewalk needed	
First Choice	Second Choice	Pedestrian need a way up the hill.	
First Choice	Second Choice		
First Choice	Second Choice	area for bikes to slowly climb the hill without traffic interference	No roundabout no additional traffic lights
First Choice	Second Choice	Need at least a walking sidewalk	
First Choice	Second Choice	While Option B may increase carrying capacity,this intended consequence increases the probability drivers will travel at excessive speeds between 36th and 8th streets.Option A has the benefit of minimizing additional capacity and enhancing Non-vehicular use.Clearly this portion of Meridian is vastly dated.The whole hillside is moving and fundamental re-engineering of the road design is necessary .	
First Choice	Second Choice	Option A meets the design criteria that are most important from question 4.	
First Choice	Second Choice	There is no safe pedestrian access south from 36th. I would like to walk to the park safely.	
First Choice	Second Choice		
First Choice	Second Choice	A sidewalk for pedestrians and cyclists would be desirable as currently it is too dangerous for walking or cycling.	
Second Choice	Second Choice	cost will be unreal will not help	
First Choice	Second Choice	There needs to be safe walking options and so option A is more appealing	Really would love to see at least a lane on one side or the other for pedestrian bike/walkway.
First Choice	Second Choice		
First Choice	Second Choice	Need a sidewalk.	
First Choice	Second Choice	Need a sidewalk for this area. Option B does not meet this need.	What will be done with the bridge at the bottom of the hill?
First Choice	Second Choice	I am desperate to have a walking path going up and down Meridian	
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	Option B gets more cars down the hill, but at the expense of options for people and non-motor vehicles to safely move up and down the hill.	Hard separator between the directions of traffic except where turns are needed.
First Choice	Second Choice	Space is best used to alleviate traffic. Hill too stee for pedestrian use anyway	

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
First Choice	Second Choice	Option A works great as it is...	
First Choice	Second Choice	I seems like it would take less time for the construction.	
Second Choice	Second Choice		
First Choice	Second Choice	Sidewalks are a must. There is currently no safe way for pedestrians to get from Edgewood to Puyallup on foot.	
First Choice	Second Choice	Keep the road as close as possible to how it is today. I don't want to encourage more drivers to use meridian as their pass through to work.	
First Choice	Second Choice	Adding lanes doesn't work and the traffic will still build up from the light at valley so more pedestrian space is ideal	Center barrier wall and reduced buffers. Provide the pedestrians and bikers with an alternate location trail.
First Choice	Second Choice	There is no safe way for anyone to walk down there. I think people need to have that option and it's the city's job to provide something for walkers.	
First Choice	Second Choice		
First Choice	Second Choice	Maybe widening the existing lanes will improve the number of accidents on the hill. Squeeze if another lane in will put more cars in harms way at the same time.	
First Choice	Second Choice		
First Choice	Second Choice	If the city could somehow incorporate a SAFE pedestrian path from Edgewood Community Park down the hill would provide more walkability, get more folks outside, exercising, etc.,	
First Choice	Second Choice	You really need a pedestrian option on the hill.	
First Choice	Second Choice	Realistically hardly anyone is going to be walking up and down that hill. It's too far for pedestrians who need groceries or whatnot from puyallup... and no one will want to walk up the big ass hill regularly. Improving the road should improve the transit.	
First Choice	Second Choice	Enabling a pedestrian path off the hill would go a LONG way to creating an important connection necessary for a similar trail to the Interurban Trail further North.	
First Choice	Second Choice		
First Choice	Second Choice	People use the hill for biking and walking already and it is very dangerous. It would be great to have a sidewalk.	
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	Extend a walking lane to the valley.	
First Choice	Second Choice		
Second Choice	Second Choice		Round a bouts are the way to go. They move traffic much more efficiently
First Choice	Second Choice		
Undecided	Second Choice	Seems like a dangerous road to walk regardless of sidewalk. Curious if having 4 lanes actually helps due to the bridge condensing at the bottom of the hill.	
First Choice	Second Choice		
First Choice	Second Choice	Continuing options for walking and biking would aide in alleviating traffic and give options other than driving.	
First Choice	Second Choice	Walkway provided	Is perhaps more street lights.
First Choice	Second Choice	A second lane southbound would would only increase the speeds of vehicles. How many more accidents are needed?	
First Choice	Second Choice	Sidewalk looks like the safest option	
First Choice	Second Choice	waking/bike path from the bottom of the hill would be of value. There is no safe path to come from the valley to Edgewood via walking og biking	
First Choice	Second Choice		
Second Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice		
First Choice	Second Choice	It would be nice to have sidewalks down to the valley.	
First Choice	Second Choice		
Second Choice	Second Choice		
First Choice	Second Choice		The intersection of 36th/Meridian/Chrisella needs to be changed and updated for easier flow onto and off of Meridian. The blind corner makes it a very dangerous intersection.
First Choice	Second Choice		
First Choice	Second Choice	Again there needs to be an option Number 3, or option C, suggesting we do nothing to change what is there.	
First Choice	Second Choice		
First Choice	Second Choice	More walking options, the better.	not spending money on things nobody needs
First Choice	Second Choice	There is no reason to add another downhill lane. the traffic backs up at the light on valley all the way up the hill. the light determines throughput, an extra lane just shuffles the cars around.	
First Choice	Second Choice		
First Choice	Second Choice	Traffic backs up going south on Meridian frequently. I value having a non-motorized path but like the option of not having it directly next to the roadway.	
First Choice	Second Choice		
First Choice	Second Choice	If the road widens to 4 lanes, it will still need to merge to 3 at the bottom of Meridian. So it feel like adding a lane just moves the inevitable back up. Meanwhile a safe pedestrian and bike lane could be used.	
First Choice	Second Choice		
Second Choice	Second Choice		
First Choice	Second Choice	Multi Use path!!!	
First Choice	Second Choice		
First Choice	Second Choice	That section needs a safe way for pedestrians to get up/down the hill. It is completely unsafe right now.	
First Choice	Second Choice	I believe this hill needs options for pedestrians and non motorized vehicles to improve the safety of those in need of that type of transportation as well as the safety of the drivers. I do believe we need a better option for traffic and speeds on this hill no matter what as I live directly off of Meridian and have witnessed and assisted in tons of accidents right in front of my	
First Choice	Second Choice		
Second Choice	Second Choice		
First Choice	Second Choice	There needs to be a safe way for foot traffic to make it to Puyallup	
First Choice	Second Choice	Additional safe pedestrian walkways are always a good idea.	
First Choice	Second Choice	Safety	
First Choice	Second Choice	Single lane down the hill is okay, but need a space for pedestrians	
First Choice	Second Choice		

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
First Choice	Second Choice	Inclusion of a safe sidewalk would be fantastic.	The new multi-use non-motorized zone from Option A should be put in Chrisella Rd E. It has significantly less traffic and a lot more pedestrians who risk their lives trying to walk around those blind turns adjacent to vehicular traffic.
First Choice	Second Choice		
Undecided	Second Choice		More lighting
First Choice	Second Choice	Better for pedestrians	
First Choice	Second Choice		
Second Choice	Second Choice	No one is riding their bicycles up and down Meridian at the hill to Puyallup and if they are, they should be discouraged from doing so for everyone's safety. Fact is, there are driveways and houses off of the roadway and 2 lanes in either direction allows people to turn off the roadway while causing less backups to traffic.	Have turn lanes for driveways. Less accidents
First Choice	Second Choice		
First Choice	Second Choice	There needs to be a pedestrian option in this area. People will bike/walk either way -- they must be accommodated for overall safety. Lack of infrastructure does not mean walkers/bikers will not use the road. They currently are and it is incredibly, increasingly dangerous.	
First Choice	Second Choice	I like the separate, yet adjacent bike/walking route.	
Second Choice	Second Choice		
First Choice	Second Choice	Is "Option 1" really "Option A"? If so, the above rankings apply.	
First Choice	Second Choice		
Undecided	Undecided	In 45 years of living in Edgewood I have yet to see sufficient downhill traffic to justify a second lane, unless you are trying to plan for 40 years from now. And I can't imagine enough demand for non-motorized transportation UP Meridian to justify the expense.	
First Choice	Undecided	Should be 2 lanes in each direction.	
First Choice	Undecided	Option B is a poor design. It does not provide safe pedestrian or bicyclist access, and the added lane is not necessary. Better to have ability for people to walk/bike the hill, rather than an added vehicle lane.	
Undecided	Undecided	How much pedestrian traffic is there on this section of the road? I drive this section of road frequently and never see any, so wonder if a sidewalk is needed - especially since it is a fairly steep hill with no businesses and few homes directly on that road. (Not a walk for 'pleasure' or necessity) If segment 1 is expanded to 4 lanes (2 in each direction), there will be a back up during commuting hours when lanes go from 2 to 1. This is already the case where lanes are reduced southbound after 24th St and northbound after 36th. Therefore, option B makes more sense to continue 2 lanes in both directions in both segments.	
Undecided	Undecided	What is the "off-corridor parallel route for non-motorized users farther west?" If there will be a sidewalk up the hill with 4 driving lanes too, I prefer option B. If no sidewalk with B, I prefer A.	
Undecided	Undecided		
Undecided	Undecided		
First Choice	Undecided	Do not add an additional lane going south. This will add to the problem of speeders that we have going north. As a resident that live off 102nd Ave, I pray my family and neighbors survive turning in daily.	Same as above.
First Choice	Undecided	I believe there is already too much traffic on this stretch of Meridian. I am a resident in this area and have witnessed many accidents.	
First Choice	Undecided	my moms property has already been reduced to provide the second uphill road. A 4 lane road would take to much land.	
First Choice	Undecided	Option A, but with a 3-ft high barrier between traffic and the sidewalk.	
Undecided	Undecided	Discourage commuters	
Undecided	Undecided		round about and/or median to decrease speeds. way too many accidents on this hill
Undecided	Undecided		
Undecided	Undecided	I cannot decide one way or the other.	
Undecided	Undecided		Keep the speed slow. Add trees. Make it attractive, not a sewer for cars to race through.
Undecided	Undecided		
Undecided	Undecided	Nothing addresses the eminent domain problem. With monies tight in state /local budgets, what becomes of property owners rights?	
First Choice	Undecided	Need speed bumps also to slow traffic. Currently people drive at 50mph +	Bike path to Puyallup valley
Undecided	Undecided	unnecessary	
First Choice	Undecided	I love the idea of having a walking path, safe up and down that hill	
Undecided	Undecided	Both options will still have bottleneck issues going southbound.	The fairly new 4 way signal by the Autozone, Mc Donalds, In the morning, on the main drag, (161) when there is traffic its not uncommon to see four cars to make it through the light
First Choice	Undecided		
Undecided	Undecided		"Loops" of pedestrian walkways throughout Edgewood. So many sidewalks to nowhere
Second Choice	Undecided		Destroy the bridge connecting Edgewood to Puyallup. The valley belongs in the valley.
First Choice	Undecided	Reduce traffic volumes and speeds! Do not add lanes, add multiple round abouts to make traffic go elsewhere.	
First Choice	Undecided		
Second Choice	Undecided	I thnk the hill is too dangerous for non-motorized traffic.	
Undecided	Undecided		I am not in favor of keeping this corridor three lanes...too many deaths and accidents. I'm guessing the incident report is available publicly or will be in the results of this study.
Undecided	Undecided		
Undecided	Undecided	Don't see how this is possible. You already allowed a developer to clear the trees, which ruined the area, how are you gonna add lanes. This area has steep slopes. How are you going to keep the land from sliding.	
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided		Putting a turn lane in for left turns off of the road. A median to prevent head on collisions.
Undecided	Undecided		
Undecided	Undecided	I need more information about the off ROW route. Additional lanes going downhill is not necessary.	
Undecided	Undecided	I do not have to commute for work and I use this area of the road less so I am less aware of how painful it is during high traffic times.	
First Choice	Undecided	Sidewalks are very important.	Street lights
Undecided	Undecided		
First Choice	Undecided	Let traffic control (police) issues determine the lay out for safety issues.	
Undecided	Undecided		

9. Please rank the		10. In one or two sentences, please let us know why you gave the rankings you did for the options.	11. Please let us know any other ideas/input you would like to see included:
Option A	Option B		
Undecided	Undecided	See above	We will only continue to grow, even with the extension of Highway 167. Having four lanes creates a more even flow of traffic and allows for less disruption if a lane needs to be closed for construction or disables vehicles.
First Choice	Undecided	option b would be to expensive	
First Choice	Undecided	A safe non-motorized lane is needed, why have a bike lane above but not a safe way back up the hill!	
Undecided	Undecided	Use the funds to improve roads around Edgewood so commuters will drive around and not through.	
Undecided	Undecided	Use the funds to improve roads around Edgewood so commuters will drive around and not through.	Would it be possible to add a bike lane?
Undecided	Undecided	There is no barrier between north and south lanes. I can't approve either until more safety measures are considered. Option B looks like fatalities waiting to happen.	
Undecided	Undecided		
Second Choice	Undecided	Meridian is a nightmare to pull out onto from the side streets. I can easily wait 10 minutes to get onto meridian and with all the apartment buildings being put up it's really frustrating!	
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided		
First Choice	Undecided	Walking & biking is nearly nonexistent from Puyallup / Sumner up to Edgewood - multi use for this mandatory	
Undecided	Undecided		
Undecided	Undecided	Why are we paying for private development expenses to access the private developments? The developers are once again not paying for infrastructure. This is pure insanity. Just the survey being conducted is an insult as the tax payer is paying for a survey the developers implemented.	
Undecided	Undecided		
First Choice	Undecided	This part of the road needs a side walk/ bike lane for safety.	A sidewalk could open houseless people to the city from Fife. Not too fond of that idea.
Undecided	Undecided	I don't know how bad traffic is. I'd like sidewalks but traffic might be more important	4 lanes is the best option.
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided		
Undecided	Undecided	Where is the turn lane?	
Undecided	Undecided	None of this is required, what is the point?	
First Choice	Undecided	Try not to lay waste to any more of the trees along that downhill part	
First Choice	Undecided	This section is dangerous in the center lane with oncoming traffic. Pedestrian zone would be good, but would it be safe?	
Undecided	Undecided		
Undecided	Undecided	Same as above	
First Choice	Undecided	It would be insane to build something new and leave out any option for pedestrian use. It's bad enough there is no dedicated bike path here.	
Second Choice	Undecided	If spending the money to widen over bridge you might as well make it 4 lanes	
Undecided	Undecided	Improved shoulders would be great.	
Undecided	Undecided		My concern is that once the road reaches the railroad bridge, won't traffic be one lane in each direction whereby there will be traffic backups and probably accidents as the lane merges into one, especially in the southbound direction?
Undecided	Undecided		
Undecided	Undecided	I am undecided on both of these options. I feel that both options have faults. Whatever is chosen will still have people pass in oncoming lane, accidents due to blind corners. Possibly try a stop light half way up or down? Widen or mark residential streets or signs with warning ahead.	
Undecided	Undecided		

First Choice
First Choice
First Choice

It's important to have a sidewalk going down the hill.

First Choice
First Choice
First Choice

Any new road projects must include separate access for pedestrians and non motorized zone for city and regional connectivity.

First Choice

A sidewalk would be nice

Second Choice

Safety and traffic control to actually get home without being run over. Too many cars coming thru Edgewood to get down the hill.

First Choice

While Option B would ease traffic congestion, I oppose this option because it will increase traffic through Edgewood and we will continue to be a city where people just pass through to get to South Hill or Sumner to avoid Hwy 167 or I5

First Choice

What option that is decided will stay face tons of problems. There is the housing development that hasn't been completed - how will people exit that? Left turns out will be constant accidents. First fix the problem at the top with the light, stop sign weird 5 angle intersection. 36th and Chrisella and Meridian.

definitely need bicycle/pedestrian path to get up and down the hill

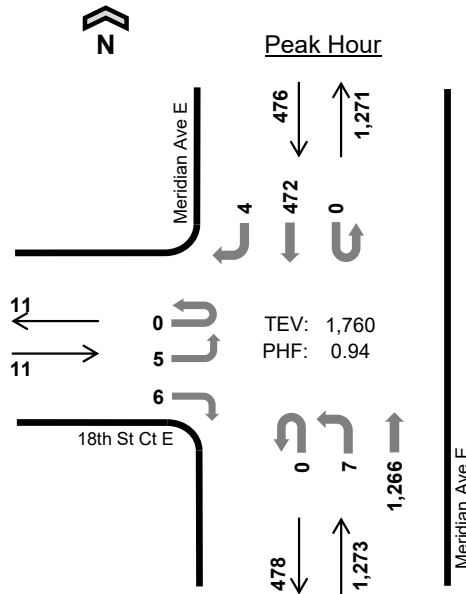
Who is paying for this? Is this survey for non city tax paying commuters that cut through town instead of driving I-5? Is "Option 2" really "Option B"? If so, the above rankings apply.

Gender		Ethnicity		Race		Languages Spoken		Household Income		Age		Connection to Edgewood		Rent/Own	
Woman	332	Not Hispanic/Latino	564	American Indian/AK Native	22	English Only	597	Less than \$24,999	8	Under 18 years	1	Resident	574	Own	590
Man	270	Hispanic/Latino	26	White	534	Spanish	25	\$25,000-\$34,999	18	18-29 years	39	Frequent Visitor	86	Rent/Owr	66
Prefer not to say	48			Asian	28	Korean	6	\$35,000-\$49,999	19	30-44 years	192	Employee	32		
				Multiracial	38	Chinese	4	\$50,000-\$74,999	45	45-59 years	170				
				Black or African American	19	German	10	\$75,000-\$99,999	64	60-74 years	149				
				Native HI or Pacific Islander	14	Vietnamese	151	\$100,000-\$149,999	149	Over 74 years	24				
						Tagalog	5	Over \$150,000	224						
						Russian	10								
						Arabic	3								
						Prefer not to answer	35								

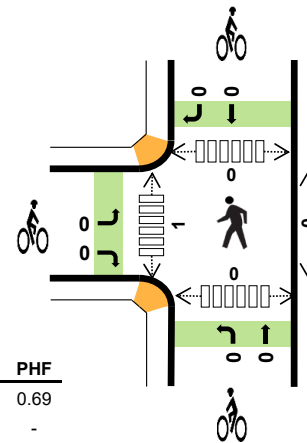
Appendix C: Traffic Data Worksheets

Appendix C: Turning Movement & Average Daily Traffic (ADT) Counts

Meridian Ave E 18th St Ct E



Date: 09/20/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	0.0%	0.69
WB	-	-
NB	4.6%	0.87
SB	6.1%	0.88
TOTAL	4.9%	0.94

Two-Hour Count Summaries

Interval Start		18th St Ct E				0				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	2	0	3	0	0	0	0	0	0	302	0	0	0	105	0	412	0
7:15 AM		0	0	0	1	0	0	0	0	0	1	363	0	0	0	101	0	466	0
7:30 AM		0	3	0	1	0	0	0	0	0	1	321	0	0	0	124	2	452	0
7:45 AM		0	2	0	1	0	0	0	0	0	2	302	0	0	0	113	1	421	1,751
8:00 AM		0	0	0	3	0	0	0	0	0	3	280	0	0	0	134	1	421	1,760
8:15 AM		0	0	0	0	0	0	0	0	0	1	290	0	0	0	132	2	425	1,719
8:30 AM		0	3	0	2	0	0	0	0	0	2	272	0	0	0	124	2	405	1,672
8:45 AM		0	0	0	1	0	0	0	0	0	3	250	0	0	0	144	4	402	1,653
Count Total		0	10	0	12	0	0	0	0	0	13	2,380	0	0	0	977	12	3,404	0
Peak Hour	All	0	5	0	6	0	0	0	0	0	7	1,266	0	0	0	472	4	1,760	0
	HV	0	0	0	0	0	0	0	0	0	1	57	0	0	0	29	0	87	0
	HV%	-	0%	-	0%	-	-	-	-	-	14%	5%	-	-	-	6%	0%	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

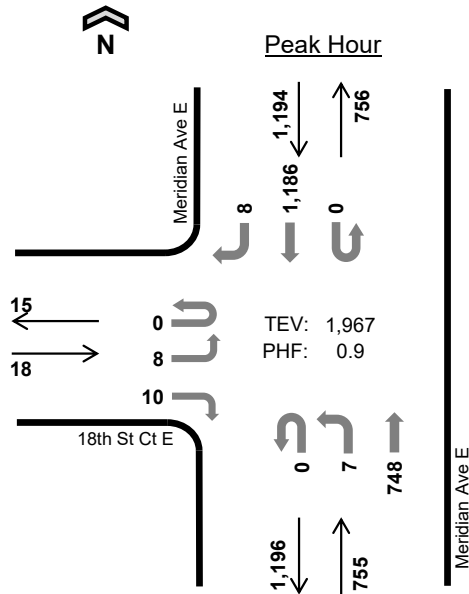
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	17	3	20	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	16	4	20	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	13	8	21	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	14	6	20	0	0	0	0	0	0	1	0	0	1
8:00 AM	0	0	15	11	26	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	13	5	18	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	19	8	27	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	20	13	33	0	0	0	0	0	0	4	0	0	4
Count Total	0	0	127	58	185	0	0	0	0	0	0	5	0	0	5
Peak Hr	0	0	58	29	87	0	0	0	0	0	0	1	0	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	18th St Ct E				0				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	17	0	0	0	3	0	20	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	16	0	0	0	4	0	20	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	12	0	0	0	8	0	21	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	6	0	20	81
8:00 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	11	0	26	87
8:15 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	5	0	18	85
8:30 AM	0	0	0	0	0	0	0	0	0	0	19	0	0	0	8	0	27	91
8:45 AM	0	0	0	0	0	0	0	0	0	0	20	0	0	0	13	0	33	104
Count Total	0	0	0	0	0	0	0	0	0	1	126	0	0	0	58	0	185	0
Peak Hour	0	0	0	0	0	0	0	0	0	1	57	0	0	0	29	0	87	0

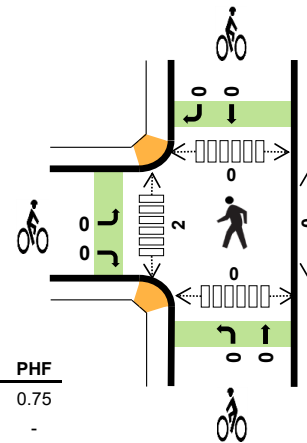
Two-Hour Count Summaries - Bikes																	
Interval Start	18th St Ct E			0			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Meridian Ave E 18th St Ct E



Date: 09/20/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	5.6%	0.75
WB	-	-
NB	1.6%	0.87
SB	1.8%	0.93
TOTAL	1.8%	0.90

Two-Hour Count Summaries

Interval Start		18th St Ct E				0				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	2	0	2	0	0	0	0	0	3	180	0	0	0	322	3	512	0
4:15 PM		0	0	0	1	0	0	0	0	0	1	177	0	0	0	309	2	490	0
4:30 PM		0	3	0	2	0	0	0	0	0	2	169	0	0	0	287	1	464	0
4:45 PM		0	2	0	0	0	0	0	0	0	2	144	0	0	0	310	1	459	1,925
5:00 PM		0	3	0	2	0	0	0	0	0	0	218	0	0	0	322	0	545	1,958
5:15 PM		0	2	0	4	0	0	0	0	0	1	168	0	0	0	303	4	482	1,950
5:30 PM		0	2	0	1	0	0	0	0	0	3	173	0	0	0	279	1	459	1,945
5:45 PM		0	1	0	3	0	0	0	0	0	3	189	0	0	0	282	3	481	1,967
Count Total		0	15	0	15	0	0	0	0	0	15	1,418	0	0	0	2,414	15	3,892	0
Peak Hour	All	0	8	0	10	0	0	0	0	0	7	748	0	0	0	1,186	8	1,967	0
	HV	0	0	0	1	0	0	0	0	0	0	12	0	0	0	22	0	35	0
	HV%	-	0%	-	10%	-	-	-	-	-	-	0%	2%	-	-	-	2%	0%	2%

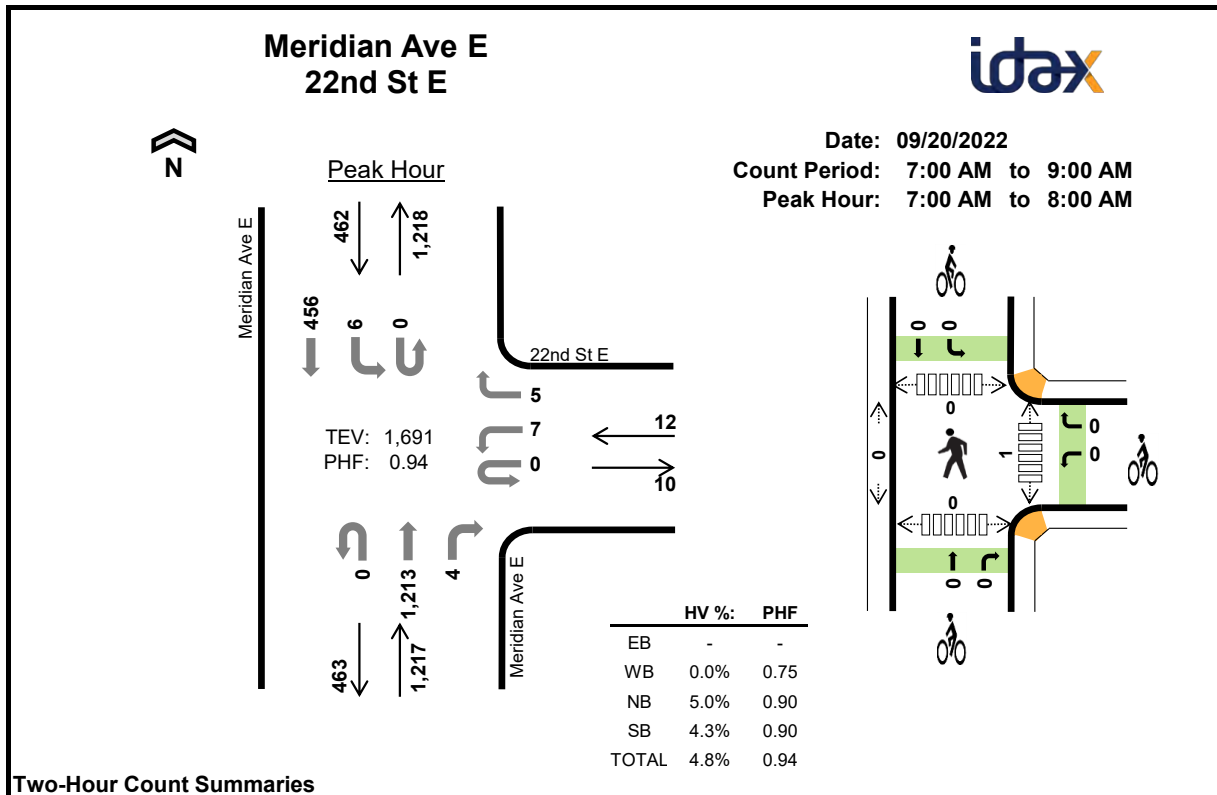
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	10	12	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	7	8	16	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	5	5	10	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	4	9	13	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	4	5	0	0	0	0	0	0	1	0	0	1
5:30 PM	1	0	2	4	7	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	5	5	10	0	0	0	0	0	0	1	0	0	1
Count Total	2	0	28	49	79	0	0	0	0	0	0	3	0	0	3
Peak Hr	1	0	12	22	35	0	0	0	0	0	0	2	0	0	2

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	18th St Ct E				0				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	10	0	12	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	7	0	0	0	8	0	16	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	6	44
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	9	0	13	45
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	34
5:30 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	4	0	7	31
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	35
Count Total	0	0	0	2	0	0	0	0	0	0	28	0	0	0	49	0	79	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	12	0	0	0	22	0	35	0

Two-Hour Count Summaries - Bikes																		
Interval Start	18th St Ct E			0			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		0				22nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	1	0	0	295	0	0	3	105	0	404	0
7:15 AM		0	0	0	0	0	2	0	2	0	0	337	0	0	0	107	0	448	0
7:30 AM		0	0	0	0	0	3	0	1	0	0	313	2	0	2	126	0	447	0
7:45 AM		0	0	0	0	0	2	0	1	0	0	268	2	0	1	118	0	392	1,691
8:00 AM		0	0	0	0	0	1	0	1	0	0	262	2	0	2	132	0	400	1,687
8:15 AM		0	0	0	0	0	1	0	3	0	0	274	0	0	1	133	0	412	1,651
8:30 AM		0	0	0	0	0	0	0	2	0	0	267	1	0	0	121	0	391	1,595
8:45 AM		0	0	0	0	0	2	0	1	0	0	243	2	0	2	128	0	378	1,581
Count Total		0	0	0	0	0	11	0	12	0	0	2,259	9	0	11	970	0	3,272	0
Peak Hour	All	0	0	0	0	0	7	0	5	0	0	1,213	4	0	6	456	0	1,691	0
	HV	0	0	0	0	0	0	0	0	0	0	60	1	0	0	20	0	81	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	5%	25%	-	0%	4%	-	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	17	3	20	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	16	5	21	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	13	7	20	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	15	5	20	0	0	0	0	0	1	0	0	0	1
8:00 AM	0	0	15	10	25	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	10	5	16	0	0	0	0	0	3	0	0	0	3
8:30 AM	0	0	19	7	26	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	24	11	35	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	129	53	183	0	0	0	0	0	4	0	0	0	4
Peak Hr	0	0	61	20	81	0	0	0	0	0	1	0	0	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				22nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	17	0	0	0	3	0	20	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	16	0	0	0	5	0	21	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	12	1	0	0	7	0	20	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	5	0	20	81
8:00 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	10	0	25	86
8:15 AM	0	0	0	0	0	0	0	1	0	0	10	0	0	0	5	0	16	81
8:30 AM	0	0	0	0	0	0	0	0	0	0	19	0	0	0	7	0	26	87
8:45 AM	0	0	0	0	0	0	0	0	0	0	24	0	0	0	11	0	35	102
Count Total	0	0	0	0	0	0	0	1	0	0	128	1	0	0	53	0	183	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	60	1	0	0	20	0	81	0

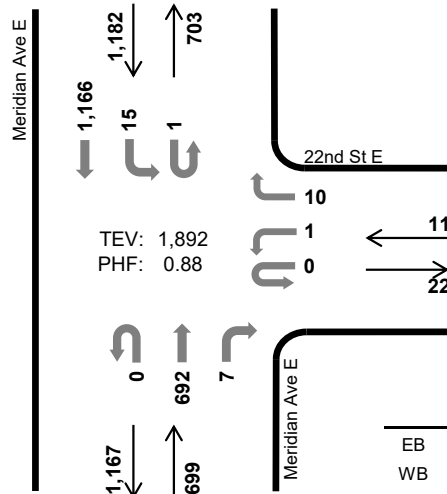
Two-Hour Count Summaries - Bikes																	
Interval Start	0			22nd St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

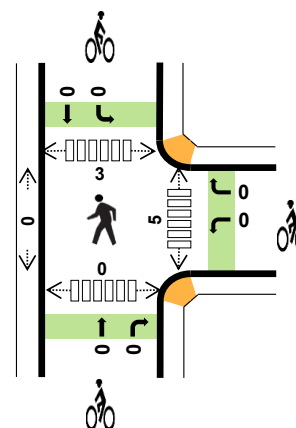
Meridian Ave E 22nd St E



Peak Hour



Date: 09/20/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	-	-
WB	0.0%	0.46
NB	2.6%	0.82
SB	2.7%	0.92
TOTAL	2.6%	0.88

Two-Hour Count Summaries

Interval Start		0				22nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	1	0	0	165	2	0	8	315	0	491	0
4:15 PM		0	0	0	0	0	0	0	2	0	0	176	1	1	5	277	0	462	0
4:30 PM		0	0	0	0	0	1	0	2	0	0	164	2	0	5	281	0	455	0
4:45 PM		0	0	0	0	0	0	0	0	0	0	142	1	0	2	291	0	436	1,844
5:00 PM		0	0	0	0	0	0	0	6	0	0	210	3	0	3	317	0	539	1,892
5:15 PM		0	0	0	0	0	0	0	4	0	0	152	3	0	5	286	0	450	1,880
5:30 PM		0	0	0	0	0	0	0	0	0	0	184	1	0	3	254	0	442	1,867
5:45 PM		0	0	0	0	0	0	0	1	0	0	173	2	0	6	267	0	449	1,880
Count Total		0	0	0	0	0	1	0	16	0	0	1,366	15	1	37	2,288	0	3,724	0
Peak Hour	All	0	0	0	0	0	1	0	10	0	0	692	7	1	15	1,166	0	1,892	0
	HV	0	0	0	0	0	0	0	0	0	0	18	0	0	0	32	0	50	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	3%	0%	0%	0%	3%	-	3%	0

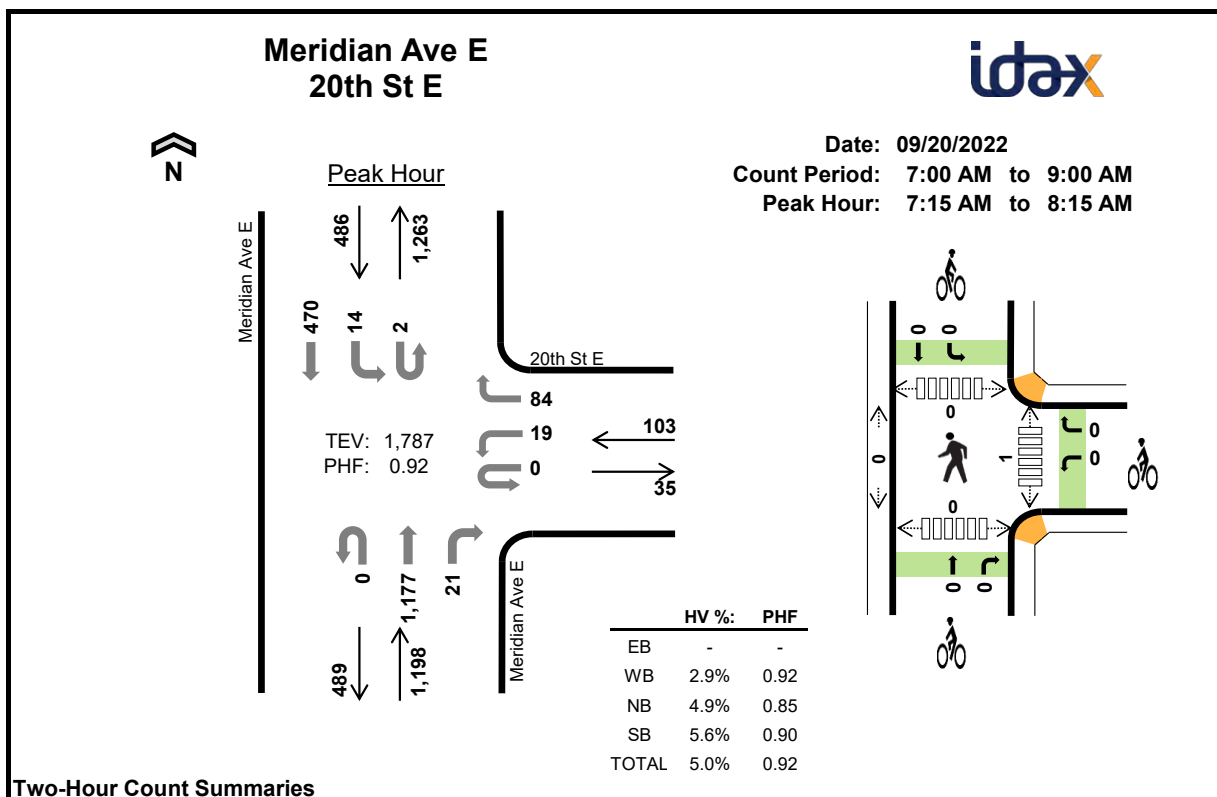
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	9	11	0	0	0	0	0	3	0	0	0	3
4:15 PM	0	0	9	9	18	0	0	0	0	0	3	0	0	0	3
4:30 PM	0	0	4	5	9	0	0	0	0	0	1	0	1	0	2
4:45 PM	0	0	2	6	8	0	0	0	0	0	1	0	2	0	3
5:00 PM	0	0	3	12	15	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	2	3	0	0	0	0	0	5	0	1	0	6
5:30 PM	0	0	4	5	9	0	0	0	0	0	0	0	3	0	3
5:45 PM	0	0	5	5	10	0	0	0	0	0	1	0	3	0	4
Count Total	0	0	30	53	83	0	0	0	0	0	14	0	10	0	24
Peak Hr	0	0	18	32	50	0	0	0	0	0	5	0	3	0	8

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				22nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	9	0	11	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	9	0	18	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	46
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	12	0	15	50
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	35
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	35
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	37
Count Total	0	0	0	0	0	0	0	0	0	0	30	0	0	0	53	0	83	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	18	0	0	0	32	0	50	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			22nd St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		0				20th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	11	0	14	0	0	285	4	0	3	97	0	414	0
7:15 AM		0	0	0	0	0	3	0	22	0	0	345	7	0	3	105	0	485	0
7:30 AM		0	0	0	0	0	6	0	18	0	0	301	3	0	5	121	0	454	0
7:45 AM		0	0	0	0	0	6	0	20	0	0	272	6	1	3	113	0	421	1,774
8:00 AM		0	0	0	0	0	4	0	24	0	0	259	5	1	3	131	0	427	1,787
8:15 AM		0	0	0	0	0	3	0	19	0	0	274	4	0	5	128	0	433	1,735
8:30 AM		0	0	0	0	0	6	0	9	0	0	266	2	0	4	118	0	405	1,686
8:45 AM		0	0	0	0	0	3	0	18	0	0	237	6	0	14	128	0	406	1,671
Count Total		0	0	0	0	0	42	0	144	0	0	2,239	37	2	40	941	0	3,445	0
Peak Hour	All	0	0	0	0	0	19	0	84	0	0	1,177	21	2	14	470	0	1,787	0
	HV	0	0	0	0	0	2	0	1	0	0	58	1	0	2	25	0	89	0
	HV%	-	-	-	-	-	11%	-	1%	-	-	5%	5%	0%	14%	5%	-	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	17	3	20	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	18	4	23	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	12	6	20	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	14	4	18	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	15	13	28	0	0	0	0	0	1	0	0	0	1
8:15 AM	0	1	12	5	18	0	0	1	0	1	0	0	0	0	0
8:30 AM	0	0	20	9	29	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	23	10	33	0	0	0	0	0	1	0	0	0	1
Count Total	0	4	131	54	189	0	0	1	0	1	2	0	0	0	2
Peak Hr	0	3	59	27	89	0	0	0	0	0	1	0	0	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				20th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	16	1	0	0	3	0	20	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	17	1	0	0	4	0	23	0
7:30 AM	0	0	0	0	0	1	0	1	0	0	12	0	0	0	6	0	20	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0	18	81
8:00 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	2	11	0	28	89
8:15 AM	0	0	0	0	0	0	0	1	0	0	12	0	0	0	5	0	18	84
8:30 AM	0	0	0	0	0	0	0	0	0	0	20	0	0	1	8	0	29	93
8:45 AM	0	0	0	0	0	0	0	0	0	0	20	3	0	1	9	0	33	108
Count Total	0	0	0	0	0	2	0	2	0	0	126	5	0	4	50	0	189	0
Peak Hour	0	0	0	0	0	2	0	1	0	0	58	1	0	2	25	0	89	0

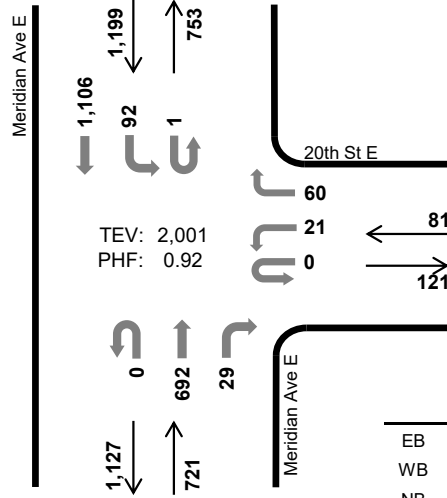
Two-Hour Count Summaries - Bikes																	
Interval Start	0			20th St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

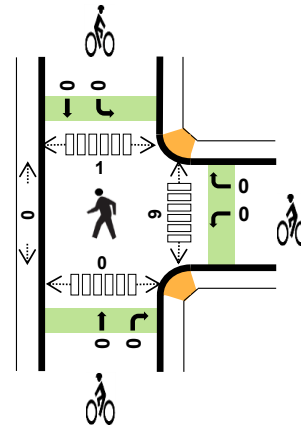
Meridian Ave E 20th St E



Peak Hour



Date: 09/20/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



	HV %:	PHF
EB	-	-
WB	1.2%	0.78
NB	1.8%	0.87
SB	1.9%	0.94
TOTAL	1.8%	0.92

Two-Hour Count Summaries

Interval Start		0				20th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	3	0	13	0	0	171	5	0	23	306	0	521	0
4:15 PM		0	0	0	0	0	3	0	13	0	0	164	6	0	20	281	0	487	0
4:30 PM		0	0	0	0	0	5	0	10	0	0	164	9	0	19	278	0	485	0
4:45 PM		0	0	0	0	0	5	0	6	0	0	144	4	0	13	300	0	472	1,965
5:00 PM		0	0	0	0	0	3	0	16	0	0	200	8	0	20	298	0	545	1,989
5:15 PM		0	0	0	0	0	7	0	16	0	0	154	5	0	26	286	0	494	1,996
5:30 PM		0	0	0	0	0	4	0	9	0	0	166	13	1	23	253	0	469	1,980
5:45 PM		0	0	0	0	0	7	0	19	0	0	172	3	0	23	269	0	493	2,001
Count Total		0	0	0	0	0	37	0	102	0	0	1,335	53	1	167	2,271	0	3,966	0
Peak Hour	All	0	0	0	0	0	21	0	60	0	0	692	29	1	92	1,106	0	2,001	0
	HV	0	0	0	0	0	0	0	1	0	0	13	0	0	0	23	0	37	0
	HV%	-	-	-	-	-	0%	-	2%	-	-	2%	0%	0%	0%	2%	-	2%	0

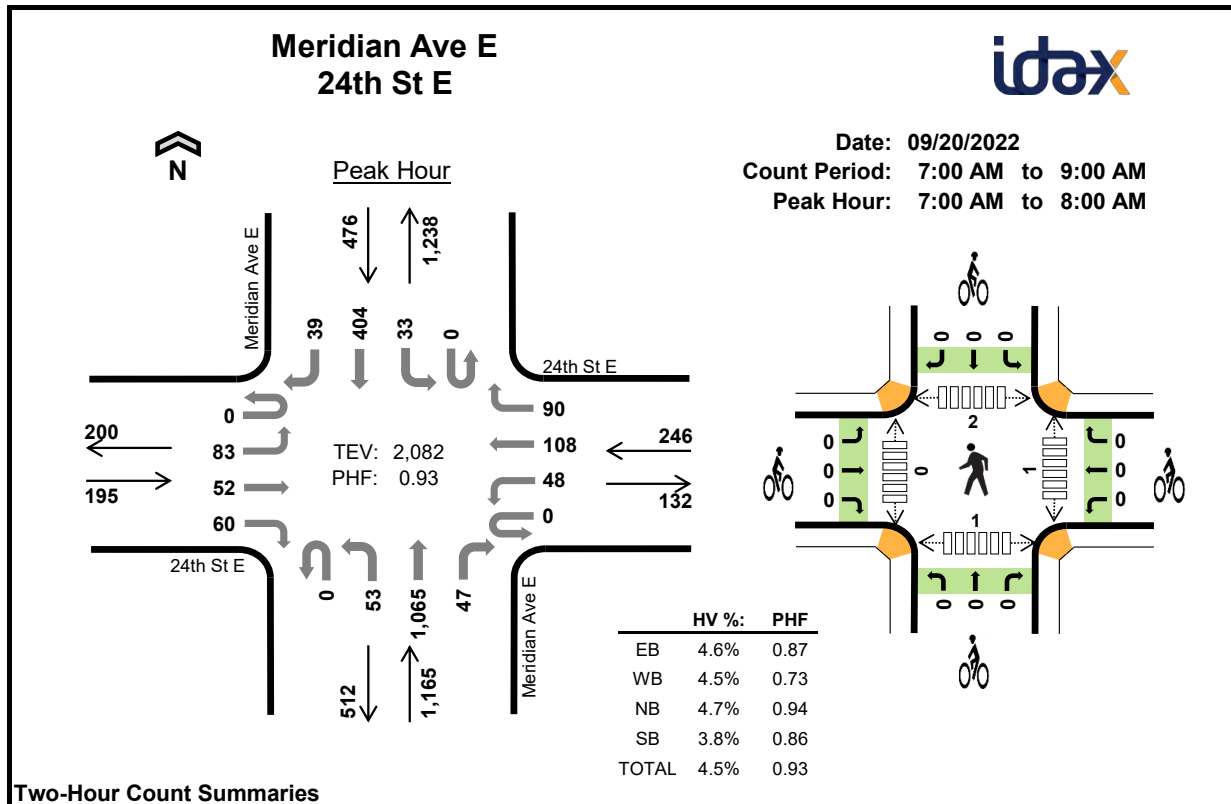
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	8	10	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	7	9	16	0	0	0	0	0	1	0	0	0	1
4:30 PM	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	3	7	10	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	3	10	14	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	3	4	0	0	0	0	0	4	0	0	0	4
5:30 PM	0	0	4	5	9	0	0	0	0	0	3	0	0	0	3
5:45 PM	0	0	5	5	10	0	0	0	0	0	2	0	1	0	3
Count Total	0	1	30	51	82	0	0	0	0	0	10	0	1	0	11
Peak Hr	0	1	13	23	37	0	0	0	0	0	9	0	1	0	10

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				20th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	8	0	10	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	0	16	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	0	10	45
5:00 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	10	0	14	49
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	37
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	37
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	10	37
Count Total	0	0	0	0	0	0	0	1	0	0	30	0	0	0	51	0	82	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	13	0	0	0	23	0	37	0

Two-Hour Count Summaries - Bikes																		
Interval Start	0			20th St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		24th St E				24th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	15	29	12	0	16	40	25	0	10	261	24	0	10	87	9	538	0
7:15 AM		0	27	17	12	0	18	32	34	0	15	287	8	0	6	96	8	560	0
7:30 AM		0	24	3	17	0	9	22	16	0	15	279	7	0	7	122	10	531	0
7:45 AM		0	17	3	19	0	5	14	15	0	13	238	8	0	10	99	12	453	2,082
8:00 AM		0	20	10	17	0	9	7	7	0	25	233	5	0	6	99	19	457	2,001
8:15 AM		0	22	4	14	0	8	10	9	0	17	242	7	0	8	108	17	466	1,907
8:30 AM		0	23	5	20	0	9	12	9	0	16	236	5	0	8	99	15	457	1,833
8:45 AM		0	22	8	26	0	8	13	8	0	34	214	10	0	3	109	19	474	1,854
Count Total		0	170	79	137	0	82	150	123	0	145	1,990	74	0	58	819	109	3,936	0
Peak Hour	All	0	83	52	60	0	48	108	90	0	53	1,065	47	0	33	404	39	2,082	0
	HV	0	3	5	1	0	0	2	9	0	2	51	2	0	1	16	1	93	0
	HV%	-	4%	10%	2%	-	0%	2%	10%	-	4%	5%	4%	-	3%	4%	3%	4%	0

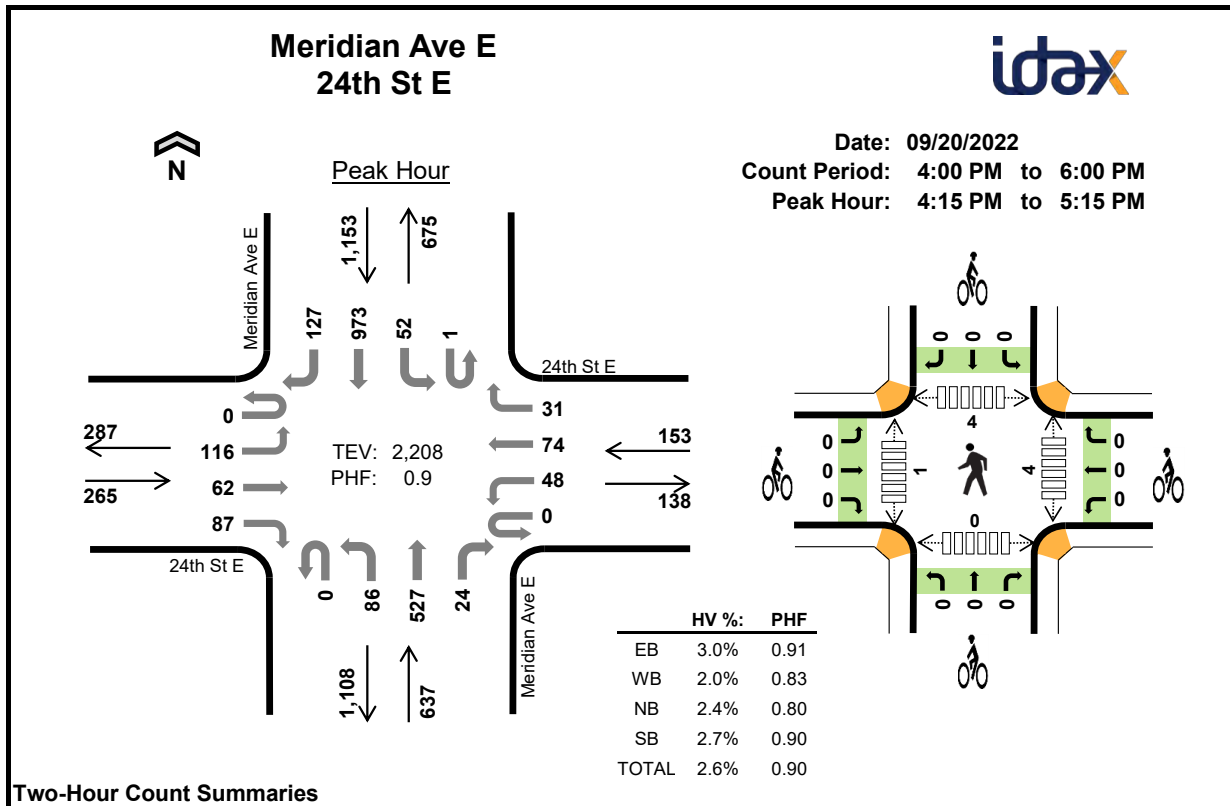
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	1	16	3	21	0	0	0	0	0	0	0	0	0	0
7:15 AM	7	3	15	4	29	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	4	12	6	23	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	3	12	5	20	0	0	0	0	0	1	0	1	1	3
8:00 AM	1	0	15	10	26	0	0	0	0	0	0	0	0	0	0
8:15 AM	3	0	11	4	18	0	0	0	0	0	0	0	1	0	1
8:30 AM	2	1	18	7	28	0	0	0	0	0	1	0	0	0	1
8:45 AM	2	4	22	8	36	0	0	0	0	0	0	0	2	0	2
Count Total	17	16	121	47	201	0	0	0	0	0	2	0	5	1	8
Peak Hour	9	11	55	18	93	0	0	0	0	0	1	0	2	1	4

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	24th St E				24th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	1	0	0	1	15	0	0	0	3	0	21	0
7:15 AM	0	2	5	0	0	0	0	3	0	0	14	1	0	1	3	0	29	0
7:30 AM	0	0	0	1	0	0	0	4	0	0	12	0	0	0	5	1	23	0
7:45 AM	0	0	0	0	0	0	1	2	0	1	10	1	0	0	5	0	20	93
8:00 AM	0	0	1	0	0	0	0	0	0	1	13	1	0	0	9	1	26	98
8:15 AM	0	1	1	1	0	0	0	0	0	1	9	1	0	1	3	0	18	87
8:30 AM	0	1	0	1	0	0	0	1	0	1	15	2	0	0	6	1	28	92
8:45 AM	0	0	0	2	0	2	0	2	0	0	22	0	0	0	8	0	36	108
Count Total	0	5	7	5	0	2	2	12	0	5	110	6	0	2	42	3	201	0
Peak Hour	0	3	5	1	0	0	2	9	0	2	51	2	0	1	16	1	93	0

Two-Hour Count Summaries - Bikes																	
Interval Start	24th St E			24th St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		24th St E				24th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	25	19	20	0	11	7	9	0	18	135	9	0	15	277	27	572	0
4:15 PM		0	25	23	23	0	17	17	12	0	22	132	6	0	13	237	27	554	0
4:30 PM		0	40	16	17	0	12	21	8	0	27	116	6	0	11	239	34	547	0
4:45 PM		0	23	13	20	0	9	23	5	0	17	105	7	0	16	221	33	492	2,165
5:00 PM		0	28	10	27	0	10	13	6	0	20	174	5	1	12	276	33	615	2,208
5:15 PM		0	19	20	22	0	13	12	7	0	15	124	9	1	21	249	21	533	2,187
5:30 PM		0	29	22	24	0	14	19	8	0	17	147	5	0	13	203	34	535	2,175
5:45 PM		0	27	19	13	0	14	10	6	0	22	133	3	0	13	227	32	519	2,202
Count Total		0	216	142	166	0	100	122	61	0	158	1,066	50	2	114	1,929	241	4,367	0
Peak Hour	All	0	116	62	87	0	48	74	31	0	86	527	24	1	52	973	127	2,208	0
	HV	0	2	3	3	0	1	2	0	0	2	13	0	0	1	29	1	57	0
	HV%	-	2%	5%	3%	-	2%	3%	0%	-	2%	2%	0%	0%	2%	3%	1%	3%	0

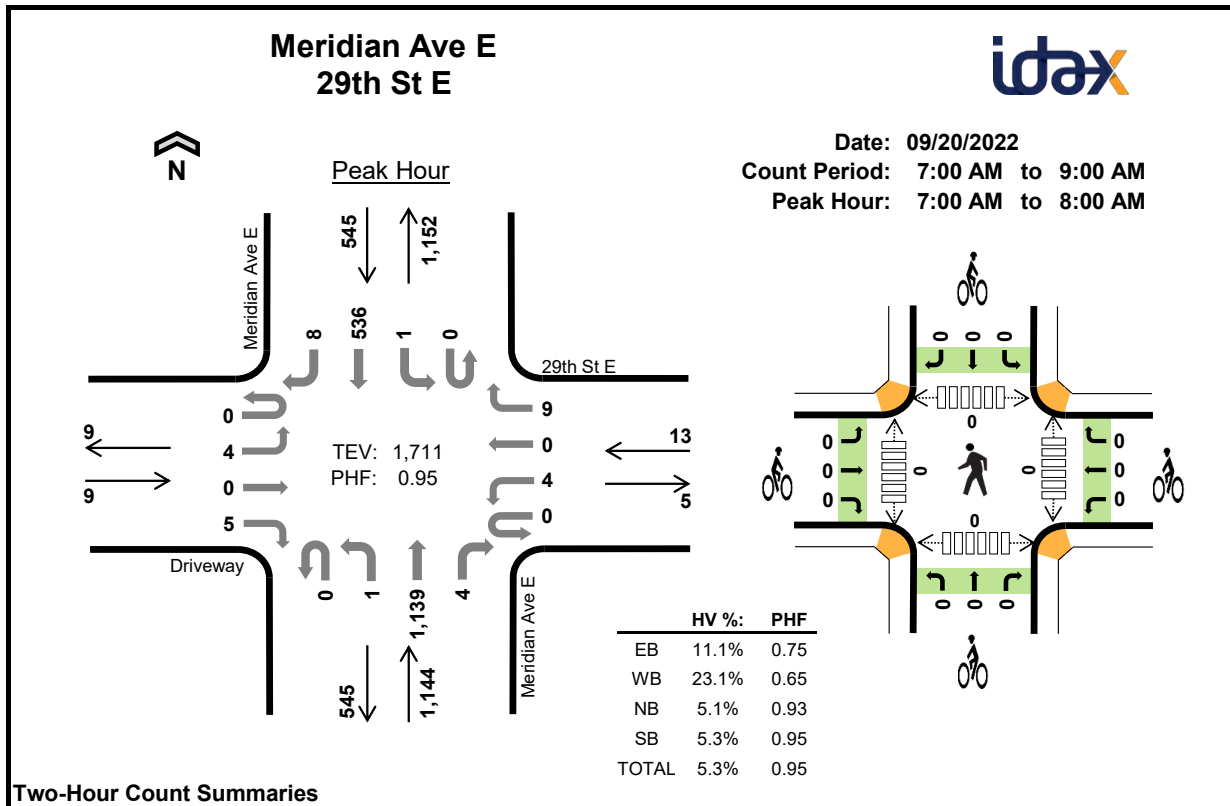
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	2	2	7	11	1	0	0	0	1	1	0	3	1	5
4:15 PM	4	2	7	8	21	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	1	3	5	11	0	0	0	0	0	2	0	2	0	4
4:45 PM	0	0	2	6	8	0	0	0	0	0	0	1	1	0	2
5:00 PM	2	0	3	12	17	0	0	0	0	0	2	0	1	0	3
5:15 PM	1	0	2	5	8	0	0	0	0	0	4	0	0	0	4
5:30 PM	1	1	3	5	10	0	0	0	0	0	1	0	0	0	1
5:45 PM	1	0	4	4	9	0	0	0	0	0	1	1	0	0	2
Count Total	11	6	26	52	95	1	0	0	0	1	11	2	7	1	21
Peak Hour	8	3	15	31	57	0	0	0	0	0	4	1	4	0	9

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	24th St E				24th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	1	1	0	1	1	0	0	0	7	0	11	0
4:15 PM	0	1	2	1	0	1	1	0	0	1	6	0	0	0	8	0	21	0
4:30 PM	0	0	1	1	0	0	1	0	0	0	3	0	0	0	5	0	11	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	51
5:00 PM	0	1	0	1	0	0	0	0	0	1	2	0	0	1	10	1	17	57
5:15 PM	0	0	0	1	0	0	0	0	0	1	1	0	0	1	3	1	8	44
5:30 PM	0	0	1	0	0	0	0	1	0	0	2	1	0	0	4	1	10	43
5:45 PM	0	1	0	0	0	0	0	0	0	1	3	0	0	0	4	0	9	44
Count Total	0	3	4	4	0	1	3	2	0	5	20	1	0	2	47	3	95	0
Peak Hour	0	2	3	3	0	1	2	0	0	2	13	0	0	1	29	1	57	0

Two-Hour Count Summaries - Bikes																	
Interval Start	24th St E			24th St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		Driveway				29th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	0	2	0	0	0	2	0	0	282	1	0	1	122	3	414	0
7:15 AM		0	1	0	1	0	0	0	2	0	0	306	0	0	0	136	2	448	0
7:30 AM		0	1	0	1	0	2	0	2	0	1	294	1	0	0	141	2	445	0
7:45 AM		0	1	0	1	0	2	0	3	0	0	257	2	0	0	137	1	404	1,711
8:00 AM		0	0	0	0	0	1	0	1	0	0	256	1	0	0	124	2	385	1,682
8:15 AM		0	1	0	0	0	1	0	2	0	1	261	1	0	1	129	1	398	1,632
8:30 AM		0	2	0	1	0	0	0	2	0	1	249	3	0	1	120	3	382	1,569
8:45 AM		0	0	0	0	0	0	0	2	0	0	249	1	0	0	125	4	381	1,546
Count Total		0	7	0	6	0	6	0	16	0	3	2,154	10	0	3	1,034	18	3,257	0
Peak Hour	All	0	4	0	5	0	4	0	9	0	1	1,139	4	0	1	536	8	1,711	0
	HV	0	0	0	1	0	1	0	2	0	0	56	2	0	0	29	0	91	0
	HV%	-	0%	-	20%	-	25%	-	22%	-	0%	5%	50%	-	0%	5%	0%	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	20	3	23	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	16	6	22	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	1	9	10	21	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	13	10	25	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	13	9	22	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	11	4	15	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	20	7	27	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	18	13	32	0	0	0	0	0	0	1	0	0	1
Count Total	1	4	120	62	187	0	0	0	0	0	0	1	0	0	1
Peak Hour	1	3	58	29	91	0	0	0	0	0	0	0	0	0	0

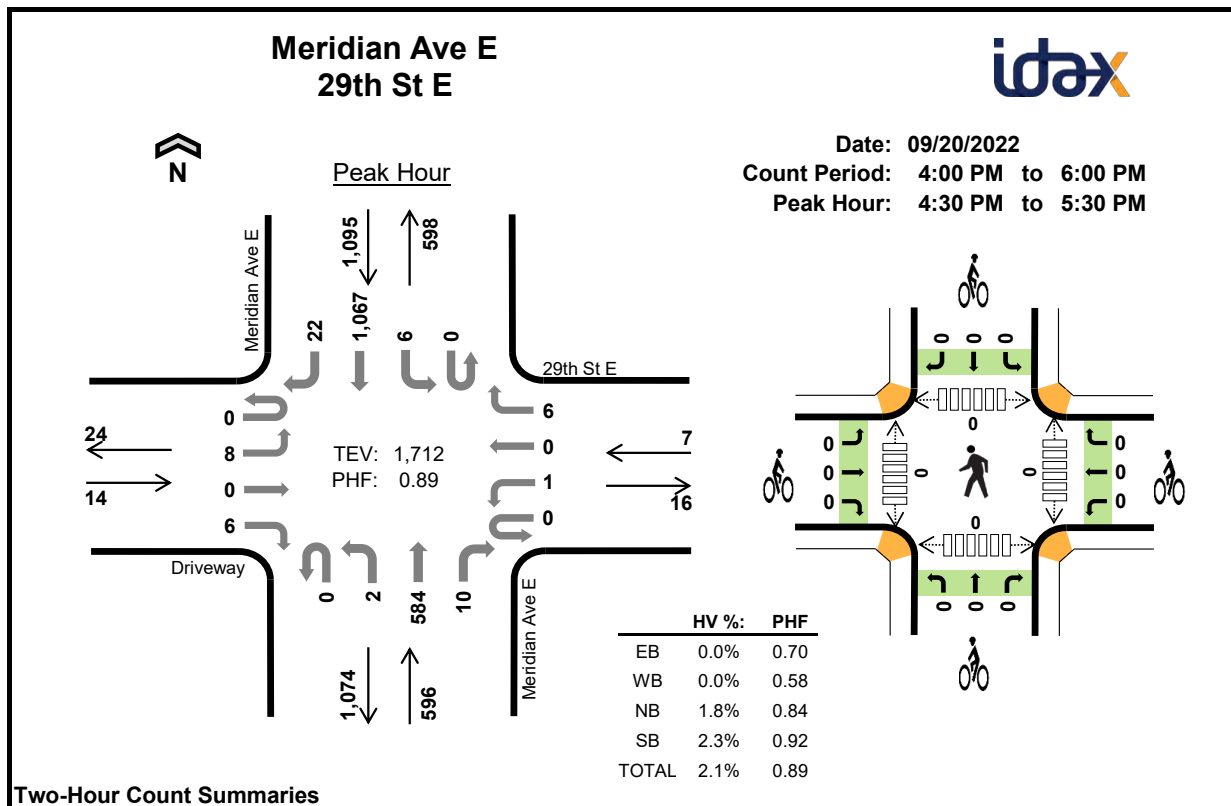
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Driveway				29th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	20	0	0	0	3	0	23	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	16	0	0	0	6	0	22	0
7:30 AM	0	0	0	1	0	1	0	0	0	0	9	0	0	0	10	0	21	0
7:45 AM	0	0	0	0	0	0	0	2	0	0	11	2	0	0	10	0	25	91
8:00 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	9	0	22	90
8:15 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	4	0	15	83
8:30 AM	0	0	0	0	0	0	0	0	0	0	19	1	0	0	7	0	27	89
8:45 AM	0	0	0	0	0	0	0	1	0	0	18	0	0	0	13	0	32	96
Count Total	0	0	0	1	0	1	0	3	0	0	117	3	0	0	62	0	187	0
Peak Hour	0	0	0	1	0	1	0	2	0	0	56	2	0	0	29	0	91	0

Two-Hour Count Summaries - Bikes

Interval Start	Driveway			29th St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start		Driveway				29th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	0	0	0	1	0	2	0	0	159	0	0	0	288	2	455	0
4:15 PM		0	0	0	1	0	0	0	0	0	1	146	1	0	2	258	1	410	0
4:30 PM		0	1	0	4	0	0	0	2	0	1	142	2	0	1	253	5	411	0
4:45 PM		0	4	0	1	0	0	0	0	0	0	132	4	0	2	247	10	400	1,676
5:00 PM		0	1	0	1	0	1	0	2	0	0	175	3	0	3	290	3	479	
5:15 PM		0	2	0	0	0	0	0	2	0	1	135	1	0	0	277	4	422	1,712
5:30 PM		0	3	0	1	0	1	0	1	0	1	147	0	0	2	219	1	376	1,677
5:45 PM		0	3	0	0	0	1	0	1	0	0	155	1	0	2	226	5	394	1,671
Count Total		0	17	0	8	0	4	0	10	0	4	1,191	12	0	12	2,058	31	3,347	0
Peak Hour	All	0	8	0	6	0	1	0	6	0	2	584	10	0	6	1,067	22	1,712	0
	HV	0	0	0	0	0	0	0	0	0	0	11	0	0	0	25	0	36	0
	HV%	-	0%	-	0%	-	0%	-	0%	-	0%	2%	0%	-	0%	2%	0%	2%	0

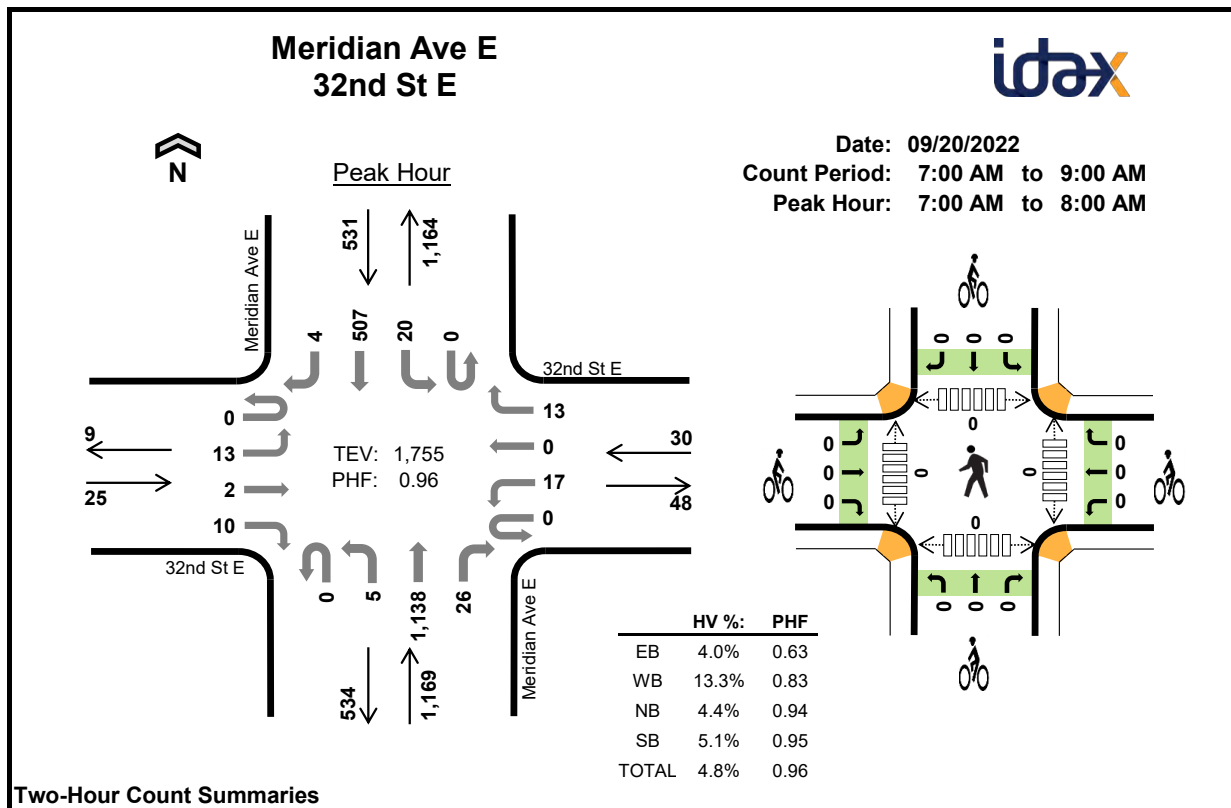
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	2	11	13	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	6	10	16	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	6	7	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	4	6	10	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	26	55	81	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	11	25	36	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Driveway				29th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	11	0	13	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	16	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	9	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	0	7	45
5:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0	14	46
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	36
5:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	33
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	10	36
Count Total	0	0	0	0	0	0	0	0	0	0	26	0	0	0	55	0	81	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	11	0	0	0	25	0	36	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Driveway				29th St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Count Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		32nd St E				32nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	3	1	2	0	5	0	3	0	0	292	8	0	4	117	0	435	0
7:15 AM		0	3	0	3	0	2	0	2	0	0	304	8	0	4	129	3	458	0
7:30 AM		0	6	0	4	0	7	0	2	0	2	285	5	0	7	133	0	451	0
7:45 AM		0	1	1	1	0	3	0	6	0	3	257	5	0	5	128	1	411	1,755
8:00 AM		0	2	0	2	0	2	0	6	0	4	246	5	0	6	117	4	394	1,714
8:15 AM		0	0	0	1	0	11	0	17	0	0	255	5	0	2	123	4	418	1,674
8:30 AM		0	4	0	1	0	4	0	10	0	1	239	1	0	3	116	1	380	1,603
8:45 AM		0	6	0	0	0	2	0	6	0	0	220	2	0	10	109	3	358	1,550
Count Total		0	25	2	14	0	36	0	52	0	10	2,098	39	0	41	972	16	3,305	0
Peak Hour	All	0	13	2	10	0	17	0	13	0	5	1,138	26	0	20	507	4	1,755	0
	HV	0	0	0	1	0	2	0	2	0	0	48	4	0	1	26	0	84	0
	HV%	-	0%	0%	10%	-	12%	-	15%	-	0%	4%	15%	-	5%	5%	0%	5%	0

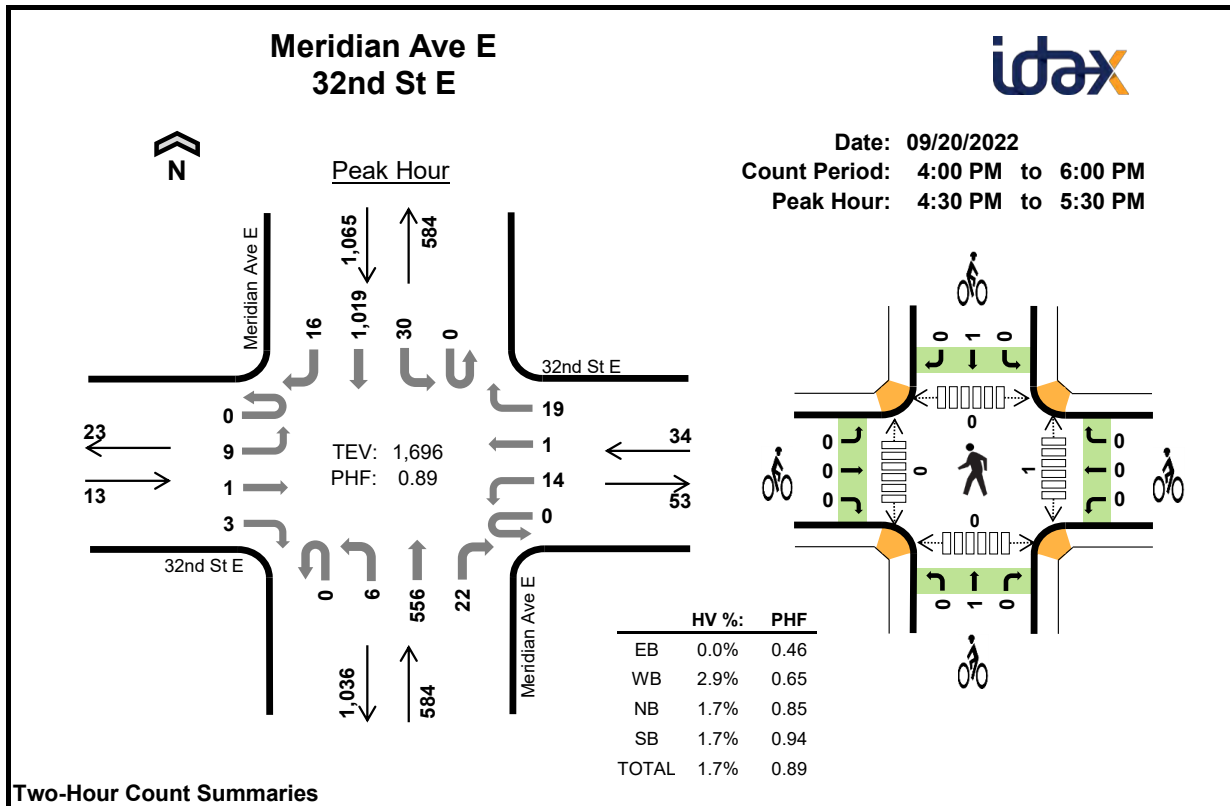
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	20	3	24	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	13	6	20	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	8	11	20	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	11	7	20	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	14	10	24	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	2	10	3	15	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	21	7	29	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	15	13	29	0	0	0	0	0	0	0	0	0	0
Count Total	1	8	112	60	181	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	4	52	27	84	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	32nd St E				32nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	1	0	0	0	0	0	0	19	1	0	0	3	0	24	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	12	1	0	0	6	0	20	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	7	1	0	1	10	0	20	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	10	1	0	0	7	0	20	84
8:00 AM	0	0	0	0	0	0	0	0	0	0	13	1	0	1	9	0	24	84
8:15 AM	0	0	0	0	0	1	0	1	0	0	9	1	0	0	3	0	15	79
8:30 AM	0	0	0	0	0	1	0	0	0	0	21	0	0	0	7	0	29	88
8:45 AM	0	0	0	0	0	1	0	0	0	0	15	0	0	1	11	1	29	97
Count Total	0	0	0	1	0	5	0	3	0	0	106	6	0	3	56	1	181	0
Peak Hour	0	0	0	1	0	2	0	2	0	0	48	4	0	1	26	0	84	0

Two-Hour Count Summaries - Bikes																	
Interval Start	32nd St E			32nd St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

**Two-Hour Count Summaries**

Interval Start		32nd St E				32nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	1	0	2	0	5	0	14	0	1	144	6	0	9	274	1	457	0
4:15 PM		0	2	0	1	0	3	0	4	0	0	132	3	0	7	249	1	402	0
4:30 PM		0	1	0	0	0	1	0	1	0	1	146	3	0	8	250	4	415	0
4:45 PM		0	4	1	0	0	6	0	7	0	1	119	8	0	4	235	5	390	1,664
5:00 PM		0	4	0	3	0	6	1	5	0	1	165	6	0	11	268	4	474	1,681
5:15 PM		0	0	0	0	0	1	0	6	0	3	126	5	0	7	266	3	417	1,696
5:30 PM		0	3	0	2	0	2	0	7	0	4	147	3	0	5	222	5	400	1,681
5:45 PM		0	1	0	0	0	6	0	7	0	1	137	2	0	8	209	3	374	1,665
Count Total		0	16	1	8	0	30	1	51	0	12	1,116	36	0	59	1,973	26	3,329	0
Peak Hour	All	0	9	1	3	0	14	1	19	0	6	556	22	0	30	1,019	16	1,696	0
	HV	0	0	0	0	0	0	0	1	0	0	10	0	0	2	16	0	29	0
	HV%	-	0%	0%	0%	-	0%	0%	5%	-	0%	2%	0%	-	7%	2%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	3	10	13	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	3	3	6	0	0	0	1	1	0	0	0	0	0
4:45 PM	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	4	8	13	0	0	1	0	1	1	0	0	0	1
5:15 PM	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	5	4	9	0	0	0	0	0	1	0	0	0	1
5:45 PM	0	0	2	5	7	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	26	45	72	0	0	1	1	2	2	0	0	0	2
Peak Hour	0	1	10	18	29	0	0	1	1	2	1	0	0	0	1

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	32nd St E				32nd St E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	10	0	13	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0	14	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	6	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	3	0	6	39
5:00 PM	0	0	0	0	0	0	0	1	0	0	4	0	0	1	7	0	13	39
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	4	29
5:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0	9	32
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0	7	33
Count Total	0	0	0	0	0	0	0	1	0	0	26	0	0	2	43	0	72	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	10	0	0	2	16	0	29	0

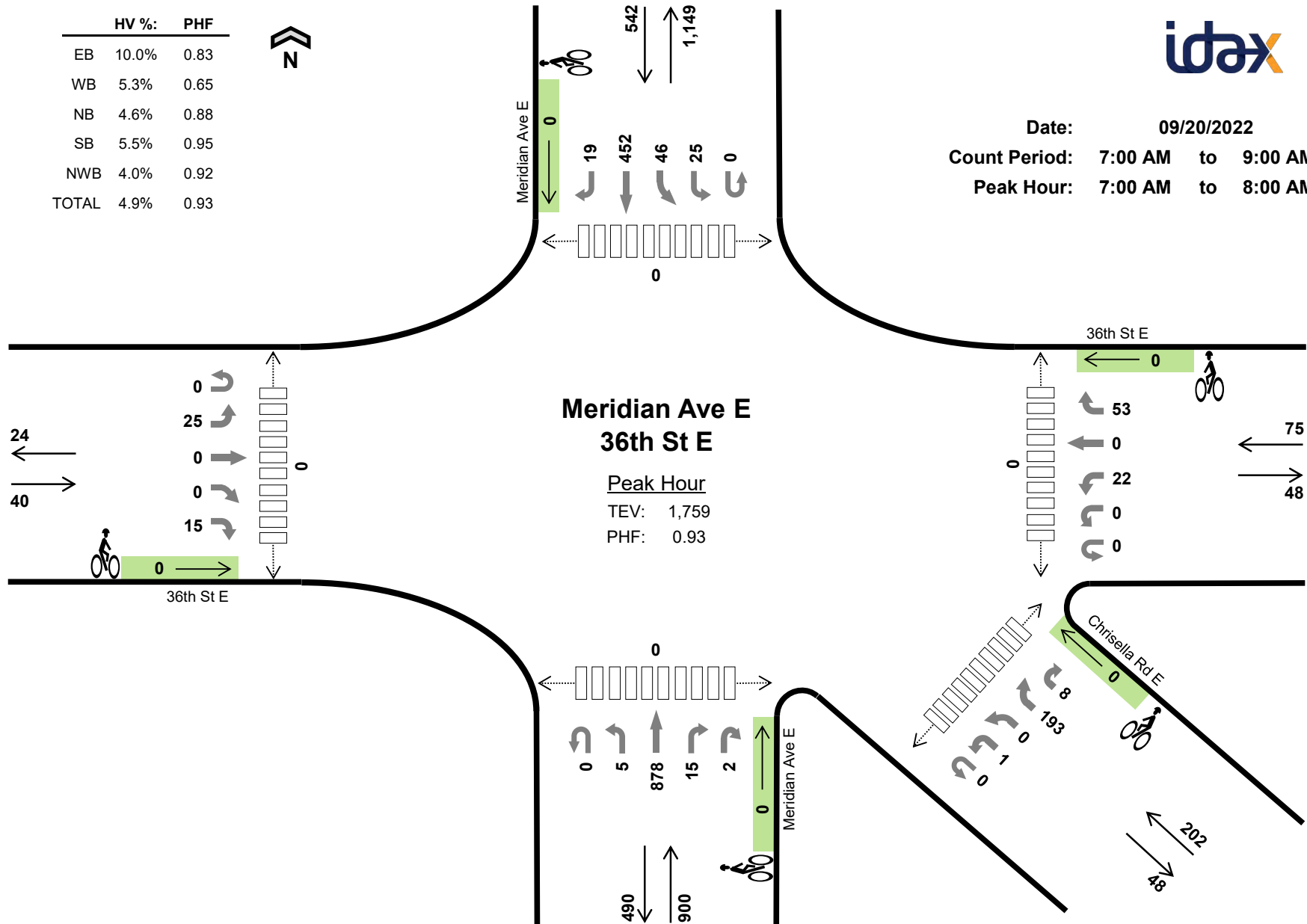
Two-Hour Count Summaries - Bikes																	
Interval Start	32nd St E			32nd St E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
Count Total	0	0	0	0	0	0	0	1	0	0	1	0	2	0			
Peak Hour	0	0	0	0	0	0	0	1	0	0	1	0	2	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

	HV %:	PHF
EB	10.0%	0.83
WB	5.3%	0.65
NB	4.6%	0.88
SB	5.5%	0.95
NWB	4.0%	0.92
TOTAL	4.9%	0.93



Date: 09/20/2022
 Count Period: 7:00 AM to 9:00 AM
 Peak Hour: 7:00 AM to 8:00 AM



Two-Hour Count Summaries

Interval Start		36th St E					36th St E					Meridian Ave E					Meridian Ave E					Chrisella Rd E					15-min Total	Rolling One Hour
		Eastbound					Westbound					Northbound					Southbound					Northwestbound						
		UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
7:00 AM		0	4	0	0	5	0	0	7	0	14	0	2	238	0	0	0	7	2	108	11	0	0	0	53	2	453	0
7:15 AM		0	8	0	0	4	0	0	3	0	8	0	3	240	10	2	0	8	13	115	4	0	1	0	50	2	471	0
7:30 AM		0	6	0	0	4	0	0	4	0	10	0	0	210	3	0	0	5	16	119	3	0	0	0	43	3	426	0
7:45 AM		0	7	0	0	2	0	0	8	0	21	0	0	190	2	0	0	5	15	110	1	0	0	0	47	1	409	1,759
8:00 AM		0	2	1	0	3	0	0	2	0	6	0	2	215	3	0	0	5	12	97	0	0	0	0	44	3	395	1,701
8:15 AM		0	2	0	0	3	0	1	7	0	9	0	2	201	3	1	0	11	19	102	0	0	1	0	34	4	400	1,630
8:30 AM		0	5	0	1	3	0	0	8	3	11	0	3	196	4	2	0	9	10	94	0	0	0	0	20	1	370	1,574
8:45 AM		0	6	0	0	2	0	0	2	0	22	0	1	161	4	0	0	8	17	84	3	0	0	0	25	0	335	1,500
Count Total		0	40	1	1	26	0	1	41	3	101	0	13	1,651	29	5	0	58	104	829	22	0	2	0	316	16	3,259	0
Peak Hour	All	0	25	0	0	15	0	0	22	0	53	0	5	878	15	2	0	25	46	452	19	0	1	0	193	8	1,759	0
	HV	0	1	0	0	3	0	0	1	0	3	0	0	39	2	0	0	0	3	25	2	0	0	0	6	2	87	0
	HV%	-	4%	-	-	20%	-	-	5%	-	6%	-	0%	4%	13%	0%	-	0%	7%	6%	11%	-	0%	-	3%	25%	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	NWB	Total	EB	WB	NB	SB	NWB	Total	East	West	North	South	Southeast	Total
7:00 AM	1	0	16	4	2	23	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	1	9	5	3	19	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	6	12	3	22	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	2	10	9	0	23	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	13	10	3	26	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	9	5	1	16	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	3	21	8	2	35	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	10	11	2	23	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	5	8	94	64	16	187	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hr	4	4	41	30	8	87	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	36th St E Eastbound					36th St E Westbound					Meridian Ave E Northbound					Meridian Ave E Southbound					Chrisella Rd E Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	16	0	0	0	0	0	4	0	0	0	0	2	0	23	0
7:15 AM	0	0	0	0	1	0	0	0	0	1	0	0	8	1	0	0	0	1	4	0	0	0	0	2	1	19	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	6	0	0	0	0	2	8	2	0	0	0	2	1	22	0
7:45 AM	0	1	0	0	1	0	0	1	0	1	0	0	9	1	0	0	0	0	9	0	0	0	0	0	0	23	87
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	0	10	0	0	0	0	2	1	26	90
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	9	0	0	0	0	1	4	0	0	0	0	1	0	16	87
8:30 AM	0	0	0	0	1	0	0	1	1	1	0	0	21	0	0	0	0	1	7	0	0	0	0	2	0	35	100
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	1	0	10	0	0	0	0	2	0	23	100
Count Total	0	1	0	0	4	0	0	3	1	4	0	0	90	4	0	0	1	5	56	2	0	0	0	13	3	187	0
Peak Hour	0	1	0	0	3	0	0	1	0	3	0	0	39	2	0	0	0	3	25	2	0	0	0	6	2	87	0

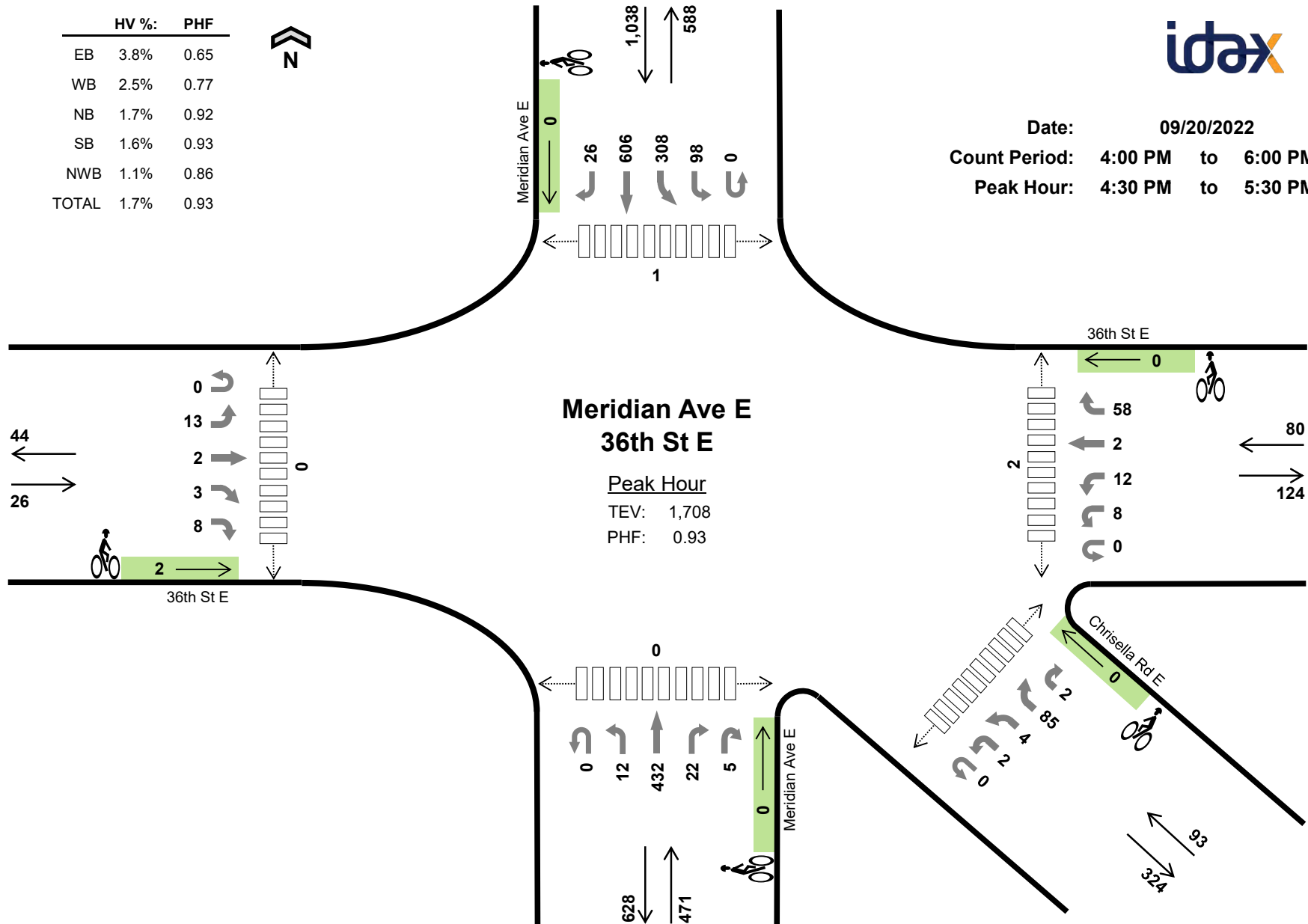
Two-Hour Count Summaries - Bikes

Interval Start	36th St E Eastbound					36th St E Westbound					Meridian Ave E Northbound					Meridian Ave E Southbound					Chrisella Rd E Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Date: 09/20/2022
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 4:30 PM to 5:30 PM

	HV %:	PHF
EB	3.8%	0.65
WB	2.5%	0.77
NB	1.7%	0.92
SB	1.6%	0.93
NWB	1.1%	0.86
TOTAL	1.7%	0.93



Two-Hour Count Summaries

Interval Start		36th St E					36th St E					Meridian Ave E					Meridian Ave E					Chrisella Rd E					15-min Total	Rolling One Hour
		Eastbound					Westbound					Northbound					Southbound					Northwestbound						
		UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
4:00 PM		0	3	1	2	0	0	1	2	1	14	0	1	113	6	1	0	18	90	186	6	0	0	0	18	0	463	0
4:15 PM		0	4	0	0	1	0	1	3	0	9	0	1	100	3	2	0	12	87	139	6	0	0	0	20	0	388	0
4:30 PM		0	2	1	2	5	0	2	3	1	20	0	2	110	6	0	0	28	101	119	4	0	0	0	16	0	422	0
4:45 PM		0	4	0	1	2	0	4	5	0	10	0	2	102	5	1	0	24	51	145	13	0	0	2	21	1	393	1,666
5:00 PM		0	4	1	0	1	0	2	2	0	19	0	6	116	4	2	0	24	70	177	4	0	1	0	24	1	458	1,661
5:15 PM		0	3	0	0	0	0	0	2	1	9	0	2	104	7	2	0	22	86	165	5	0	1	2	24	0	435	1,708
5:30 PM		0	1	0	0	0	0	1	0	2	21	0	2	93	8	1	0	12	69	147	4	0	1	0	29	3	394	1,680
5:45 PM		0	2	0	0	2	0	2	5	0	9	0	2	102	8	2	0	26	43	145	3	0	0	0	18	0	369	1,656
Count Total		0	23	3	5	11	0	13	22	5	111	0	18	840	47	11	0	166	597	1,223	45	0	3	4	170	5	3,322	0
Peak Hour	All	0	13	2	3	8	0	8	12	2	58	0	12	432	22	5	0	98	308	606	26	0	2	4	85	2	1,708	0
	HV	0	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	1	6	10	0	0	0	0	1	0	29	0
	HV%	-	0%	0%	33%	0%	-	0%	0%	50%	2%	-	0%	2%	0%	0%	-	1%	2%	2%	0%	-	0%	0%	1%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals						Bicycles						Pedestrians (Crossing Leg)					
	EB	WB	NB	SB	NWB	Total	EB	WB	NB	SB	NWB	Total	East	West	North	South	Southeast	Total
4:00 PM	0	0	3	9	1	13	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	3	8	1	12	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	1	1	3	4	0	9	2	0	0	0	0	2	2	0	0	0	2	4
4:45 PM	0	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	4	6	1	11	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	1	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	2	4	3	0	9	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	2	6	0	8	0	0	0	0	0	0	0	0	2	0	0	2
Count Total	1	4	20	43	3	71	2	0	0	0	0	2	2	1	3	0	2	8
Peak Hr	1	2	8	17	1	29	2	0	0	0	0	2	2	0	1	0	2	5

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	36th St E Eastbound					36th St E Westbound					Meridian Ave E Northbound					Meridian Ave E Southbound					Chrisella Rd E Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	7	1	0	0	0	1	0	13	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	7	0	0	0	0	1	0	12	0
4:30 PM	0	0	0	1	0	0	0	0	1	0	0	0	3	0	0	0	0	1	3	0	0	0	0	0	0	9	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	0	4	38
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	3	2	0	0	0	0	1	0	11	36
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	5	29
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	4	0	0	0	0	1	2	0	0	0	0	0	0	9	29
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	6	0	0	0	0	0	0	8	33
Count Total	0	0	0	1	0	0	0	0	1	3	0	0	20	0	0	0	1	9	32	1	0	0	0	3	0	71	0
Peak Hour	0	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	1	6	10	0	0	0	0	1	0	29	0

Two-Hour Count Summaries - Bikes

Interval Start	36th St E Eastbound					36th St E Westbound					Meridian Ave E Northbound					Meridian Ave E Southbound					Chrisella Rd E Northwestbound					15-min Total	Rolling One Hour
	UT	LT	TH	BR	RT	UT	HL	LT	TH	RT	UT	LT	TH	RT	HR	UT	LT	BL	TH	RT	UT	HL	BL	BR	HR		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

Meridian Ct Meridian Ave E

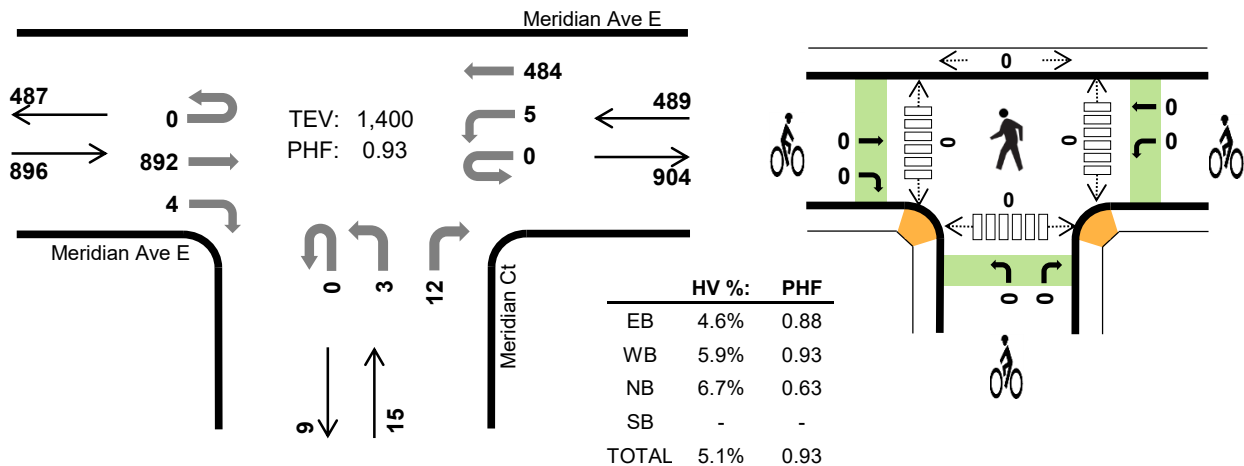


Peak Hour

Date: 09/20/2022

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



Two-Hour Count Summaries

Interval Start	Meridian Ave E Eastbound				Meridian Ave E Westbound				Meridian Ct Northbound				Meridian Ct Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	253	1	0	2	114	0	0	0	0	3	0	0	0	0	373	0
7:15 AM	0	0	251	1	0	2	119	0	0	0	0	4	0	0	0	0	377	0
7:30 AM	0	0	198	2	0	0	132	0	0	3	0	3	0	0	0	0	338	0
7:45 AM	0	0	190	0	0	1	119	0	0	0	0	2	0	0	0	0	312	1,400
8:00 AM	0	0	224	2	0	1	95	0	0	0	0	2	0	0	0	0	324	1,351
8:15 AM	0	0	196	0	0	6	108	0	0	4	0	3	0	0	0	0	317	1,291
8:30 AM	0	0	202	2	0	1	103	0	0	1	0	3	0	0	0	0	312	1,265
8:45 AM	0	0	164	0	0	0	92	0	0	1	0	2	0	0	0	0	259	1,212
Count Total	0	0	1,678	8	0	13	882	0	0	9	0	22	0	0	0	0	2,612	0
Peak Hour	All	0	0	892	4	0	5	484	0	0	3	12	0	0	0	0	1,400	0
	HV	0	0	41	0	0	2	27	0	0	0	1	0	0	0	0	71	0
	HV%	-	-	5%	0%	-	40%	6%	-	-	0%	8%	-	-	-	-	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	16	5	0	0	21	0	0	0	0	0	0	0	0	0	0
7:15 AM	10	5	1	0	16	0	0	0	0	0	0	0	0	0	0
7:30 AM	6	7	0	0	13	0	0	0	0	0	0	0	0	0	0
7:45 AM	9	12	0	0	21	0	0	0	0	0	0	0	0	0	0
8:00 AM	12	9	1	0	22	0	0	0	0	0	0	0	0	0	0
8:15 AM	9	5	0	0	14	0	0	0	0	0	0	0	0	0	0
8:30 AM	21	8	0	0	29	0	0	0	0	0	0	0	0	0	0
8:45 AM	10	12	0	0	22	0	0	0	0	0	0	0	0	0	0
Count Total	93	63	2	0	158	0	0	0	0	0	0	0	0	0	0
Peak Hr	41	29	1	0	71	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Meridian Ave E				Meridian Ave E				Meridian Ct				0				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	16	0	0	1	4	0	0	0	0	0	0	0	0	0	21	0
7:15 AM	0	0	10	0	0	0	5	0	0	0	0	1	0	0	0	0	16	0
7:30 AM	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0	13	0
7:45 AM	0	0	9	0	0	1	11	0	0	0	0	0	0	0	0	0	21	71
8:00 AM	0	0	12	0	0	0	9	0	0	0	0	1	0	0	0	0	22	72
8:15 AM	0	0	9	0	0	0	5	0	0	0	0	0	0	0	0	0	14	70
8:30 AM	0	0	21	0	0	0	8	0	0	0	0	0	0	0	0	0	29	86
8:45 AM	0	0	10	0	0	0	12	0	0	0	0	0	0	0	0	0	22	87
Count Total	0	0	93	0	0	2	61	0	0	0	0	2	0	0	0	0	158	0
Peak Hour	0	0	41	0	0	2	27	0	0	0	0	1	0	0	0	0	71	0

Two-Hour Count Summaries - Bikes

Interval Start	Meridian Ave E			Meridian Ave E			Meridian Ct			0			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Meridian Ct Meridian Ave E

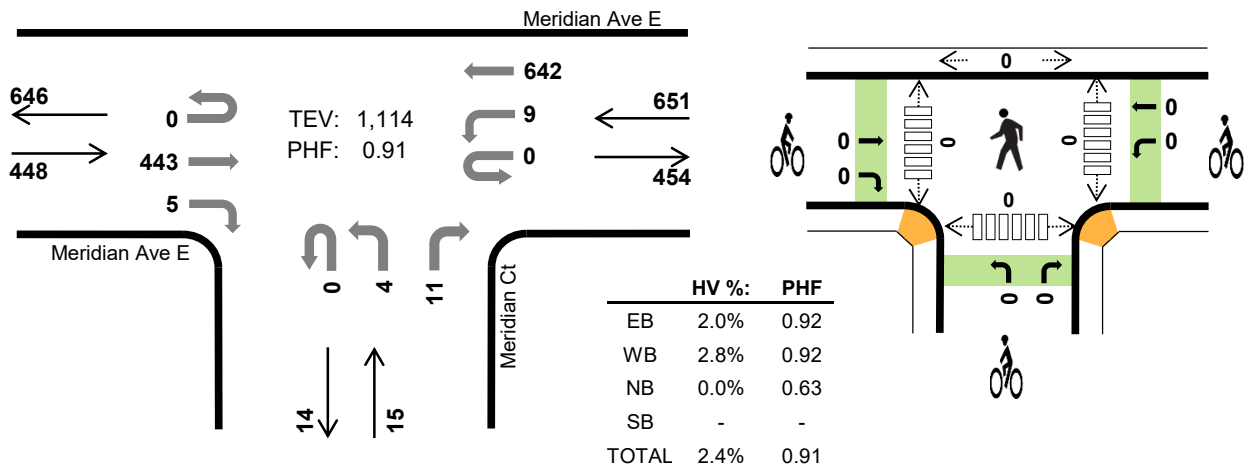


Peak Hour

Date: 09/20/2022

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 5:00 PM to 6:00 PM



Two-Hour Count Summaries

Interval Start	Meridian Ave E Eastbound				Meridian Ave E Westbound				Meridian Ct Northbound				0 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	120	1	0	2	176	0	0	0	0	3	0	0	0	0	302	0
4:15 PM	0	0	110	2	0	5	136	0	0	0	0	0	0	0	0	0	253	0
4:30 PM	0	0	116	3	0	1	132	0	0	2	0	0	0	0	0	0	254	0
4:45 PM	0	0	115	2	0	3	150	0	0	2	0	0	0	0	0	0	272	1,081
5:00 PM	0	0	121	1	0	2	175	0	0	2	0	4	0	0	0	0	305	1,084
5:15 PM	0	0	109	2	0	3	164	0	0	0	0	3	0	0	0	0	281	1,112
5:30 PM	0	0	99	2	0	2	149	0	0	0	0	2	0	0	0	0	254	1,112
5:45 PM	0	0	114	0	0	2	154	0	0	2	0	2	0	0	0	0	274	1,114
Count Total	0	0	904	13	0	20	1,236	0	0	8	0	14	0	0	0	0	2,195	0
Peak Hour	All	0	0	443	5	0	9	642	0	0	4	0	11	0	0	0	1,114	0
	HV	0	0	9	0	0	0	18	0	0	0	0	0	0	0	0	27	0
	HV%	-	-	2%	0%	-	0%	3%	-	-	0%	-	0%	-	-	-	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	4	0	0	7	0	0	0	0	0	0	0	0	0	0
4:15 PM	4	6	0	0	10	0	0	0	0	0	0	0	0	0	0
4:30 PM	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0
4:45 PM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	3	4	0	0	7	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0
5:30 PM	4	3	0	0	7	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	5	0	0	7	0	0	0	0	0	0	0	0	0	0
Count Total	20	34	0	0	54	0	0	0	0	0	0	0	0	0	0
Peak Hr	9	18	0	0	27	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Meridian Ave E				Meridian Ave E				Meridian Ct				0				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	7	0
4:15 PM	0	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	10	0
4:30 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	6	0
4:45 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	4	27
5:00 PM	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	7	27
5:15 PM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6	23
5:30 PM	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	7	24
5:45 PM	0	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	7	27
Count Total	0	0	20	0	0	0	34	0	0	0	0	0	0	0	0	0	54	0
Peak Hour	0	0	9	0	0	0	18	0	0	0	0	0	0	0	0	0	27	0

Two-Hour Count Summaries - Bikes

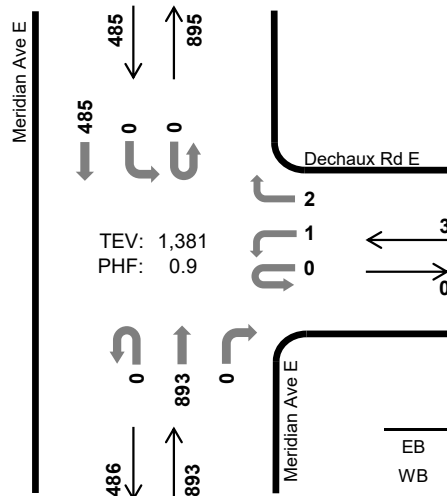
Interval Start	Meridian Ave E			Meridian Ave E			Meridian Ct			0			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Meridian Ave E Dechaux Rd E



Peak Hour



Date: 09/20/2022
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM

	HV %:	PHF
EB	-	-
WB	0.0%	0.38
NB	4.4%	0.86
SB	5.6%	0.93
TOTAL	4.8%	0.90

Two-Hour Count Summaries

Interval Start		0				Dechaux Rd E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	0	2	0	0	244	0	0	0	114	0	360	0
7:15 AM		0	0	0	0	0	0	0	0	0	0	260	0	0	0	123	0	383	0
7:30 AM		0	0	0	0	0	1	0	0	0	0	189	0	0	0	130	0	320	0
7:45 AM		0	0	0	0	0	0	0	0	0	0	200	0	0	0	118	0	318	1,381
8:00 AM		0	0	0	0	0	0	0	0	0	0	213	0	0	0	94	0	307	1,328
8:15 AM		0	0	0	0	0	0	0	1	0	0	207	0	0	0	115	0	323	1,268
8:30 AM		0	0	0	0	0	0	0	1	0	0	190	0	0	0	107	0	298	1,246
8:45 AM		0	0	0	0	0	0	0	1	0	0	179	0	0	0	93	0	273	1,201
Count Total		0	0	0	0	0	1	0	5	0	0	1,682	0	0	0	894	0	2,582	0
Peak Hour	All	0	0	0	0	0	1	0	2	0	0	893	0	0	0	485	0	1,381	0
	HV	0	0	0	0	0	0	0	0	0	0	39	0	0	0	27	0	66	0
	HV%	-	-	-	-	-	0%	-	0%	-	-	4%	-	-	-	6%	-	5%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	14	5	19	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	9	3	12	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	7	8	15	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	9	11	20	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	12	8	20	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	9	4	13	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	21	8	29	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	12	11	23	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	93	58	151	0	0	0	0	0	0	0	0	0	0
Peak Hr	0	0	39	27	66	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Dechaux Rd E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	5	0	19	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	3	0	12	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	8	0	15	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	11	0	20	66
8:00 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	8	0	20	67
8:15 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	13	68
8:30 AM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	8	0	29	82
8:45 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	11	0	23	85
Count Total	0	0	0	0	0	0	0	0	0	0	93	0	0	0	58	0	151	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	39	0	0	0	27	0	66	0

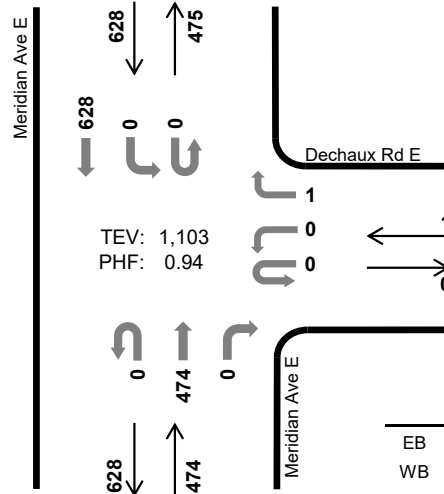
Two-Hour Count Summaries - Bikes																	
Interval Start	0			Dechaux Rd E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Meridian Ave E Dechaux Rd E



Peak Hour



Date: 09/20/2022
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

	HV %:	PHF
EB	-	-
WB	0.0%	0.25
NB	1.7%	0.97
SB	2.5%	0.91
TOTAL	2.2%	0.94

Two-Hour Count Summaries

Interval Start		0				Dechaux Rd E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	0	0	0	0	119	0	0	0	177	0	296	0
4:15 PM		0	0	0	0	0	0	0	0	0	0	112	0	0	0	142	0	254	0
4:30 PM		0	0	0	0	0	0	0	0	0	0	117	0	0	0	133	0	250	0
4:45 PM		0	0	0	0	0	0	0	0	0	0	117	0	0	0	159	0	276	1,076
5:00 PM		0	0	0	0	0	0	0	0	0	0	122	0	0	0	172	0	294	1,074
5:15 PM		0	0	0	0	0	0	0	1	0	0	118	0	0	0	164	0	283	1,103
5:30 PM		0	0	0	0	0	0	0	1	0	0	95	0	0	0	135	0	231	1,084
5:45 PM		0	0	0	0	0	0	0	0	0	0	113	0	0	0	156	0	269	1,077
Count Total		0	0	0	0	0	0	0	2	0	0	913	0	0	0	1,238	0	2,153	0
Peak Hour	All	0	0	0	0	0	0	0	1	0	0	474	0	0	0	628	0	1,103	0
	HV	0	0	0	0	0	0	0	0	0	0	8	0	0	0	16	0	24	0
	HV%	-	-	-	-	-	-	-	0%	-	-	2%	-	-	-	3%	-	2%	0

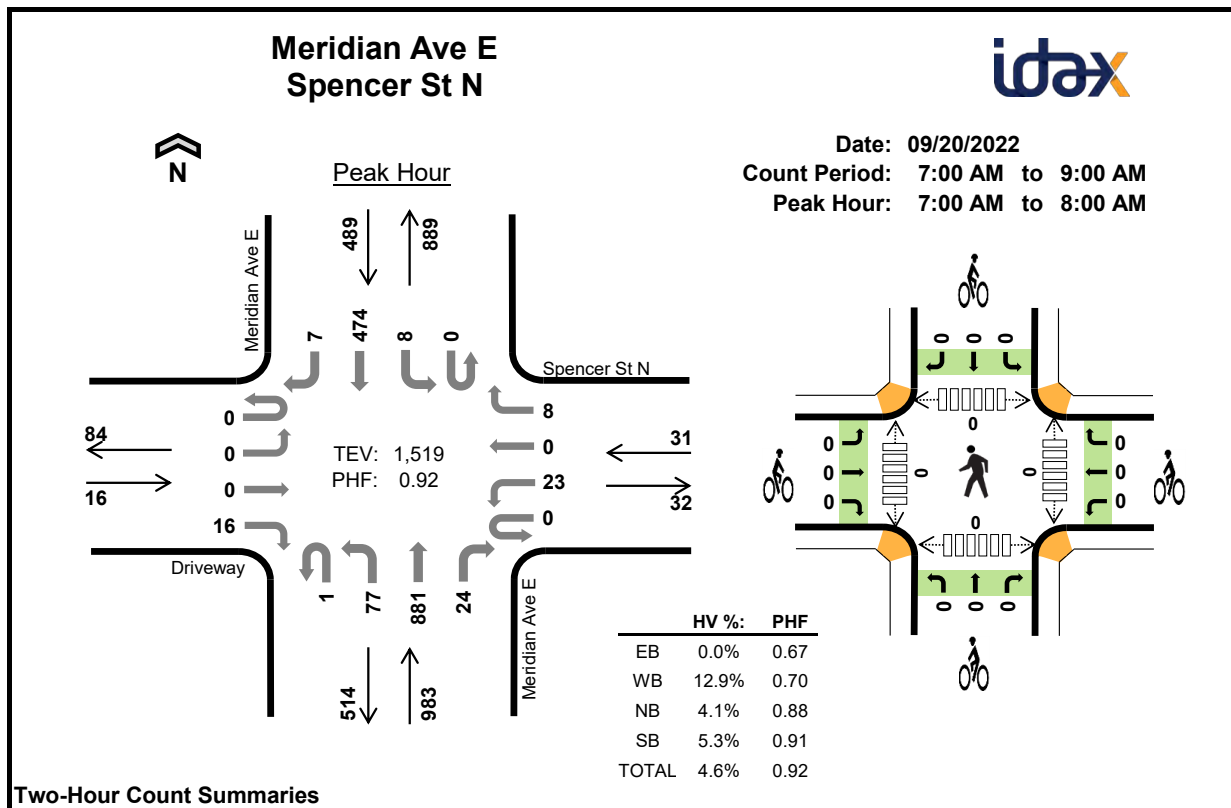
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	3	5	8	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	3	8	11	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	2	6	8	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	2	6	8	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	20	38	58	0	0	0	0	0	0	0	0	0	0
Peak Hr	0	0	8	16	24	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	0				Dechaux Rd E				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	8	0	11	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	4	31
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	30
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	24
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	0	7	23
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	8	27
Count Total	0	0	0	0	0	0	0	0	0	0	20	0	0	0	38	0	58	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	8	0	0	0	16	0	24	0

Two-Hour Count Summaries - Bikes																	
Interval Start	0			Dechaux Rd E			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Interval Start		Driveway				Spencer St N				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	6	0	7	0	4	0	13	242	6	0	2	104	2	386	0
7:15 AM		0	0	0	2	0	3	0	1	0	23	252	4	0	1	125	2	413	0
7:30 AM		0	0	0	2	0	4	0	1	1	14	198	7	0	4	131	0	362	0
7:45 AM		0	0	0	6	0	9	0	2	0	27	189	7	0	1	114	3	358	1,519
8:00 AM		0	0	0	4	0	7	0	3	1	9	219	9	0	0	92	1	345	1,478
8:15 AM		0	0	0	2	0	3	0	2	0	6	195	10	0	0	114	0	332	1,397
8:30 AM		0	0	0	5	0	4	0	1	0	6	205	12	0	2	102	0	337	1,372
8:45 AM		0	1	0	5	0	8	0	2	0	9	163	14	0	0	94	0	296	1,310
Count Total		0	1	0	32	0	45	0	16	2	107	1,663	69	0	10	876	8	2,829	0
Peak Hour	All	0	0	0	16	0	23	0	8	1	77	881	24	0	8	474	7	1,519	0
	HV	0	0	0	0	0	2	0	2	0	0	37	3	0	2	24	0	70	0
	HV%	-	-	-	0%	-	9%	-	25%	0%	0%	4%	13%	-	25%	5%	0%	5%	0

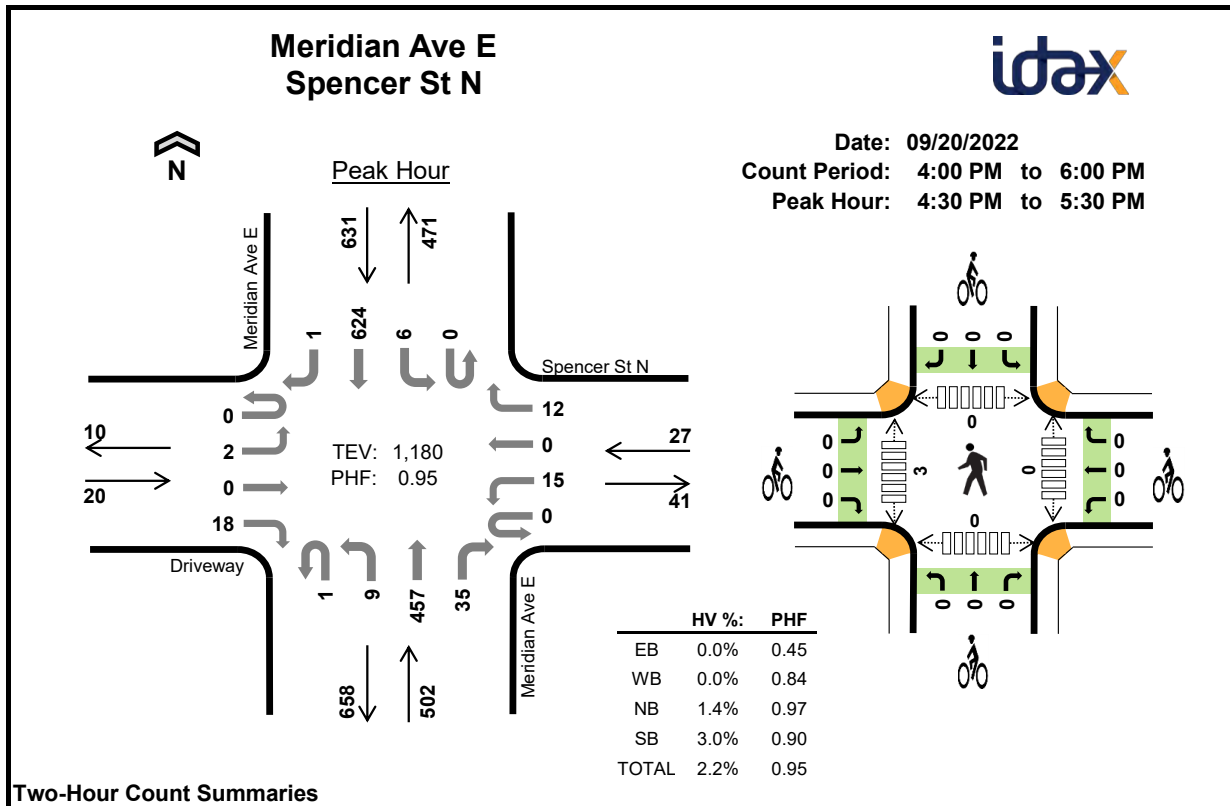
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	3	12	5	20	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	10	2	12	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	8	9	18	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	10	10	20	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	2	12	8	22	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	9	4	13	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	26	8	34	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	3	14	11	28	0	0	0	0	0	1	0	0	0	1
Count Total	0	9	101	57	167	0	0	0	0	0	1	0	0	0	1
Peak Hour	0	4	40	26	70	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Driveway				Spencer St N				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	2	0	1	0	0	11	1	0	0	5	0	20	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	9	1	0	0	2	0	12	0
7:30 AM	0	0	0	0	0	0	0	1	0	0	8	0	0	2	7	0	18	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	9	1	0	0	10	0	20	70
8:00 AM	0	0	0	0	0	2	0	0	0	0	12	0	0	0	8	0	22	72
8:15 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	13	73
8:30 AM	0	0	0	0	0	0	0	0	0	0	23	3	0	1	7	0	34	89
8:45 AM	0	0	0	0	0	3	0	0	0	0	12	2	0	0	11	0	28	97
Count Total	0	0	0	0	0	7	0	2	0	0	93	8	0	3	54	0	167	0
Peak Hour	0	0	0	0	0	2	0	2	0	0	37	3	0	2	24	0	70	0

Two-Hour Count Summaries - Bikes																		
Interval Start	Driveway			Spencer St N			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Interval Start		Driveway				Spencer St N				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	11	0	3	1	4	0	2	112	9	0	0	171	0	313	0
4:15 PM		0	0	0	7	0	1	0	2	0	3	113	8	0	3	140	1	278	0
4:30 PM		0	1	0	10	0	3	0	4	0	1	107	12	0	3	136	0	277	0
4:45 PM		0	0	0	4	0	2	0	3	1	4	117	7	0	1	155	0	294	1,162
5:00 PM		0	0	0	3	0	5	0	3	0	1	116	6	0	1	173	1	309	1,158
5:15 PM		0	1	0	1	0	5	0	2	0	3	117	10	0	1	160	0	300	1,180
5:30 PM		0	0	0	3	0	4	1	2	0	3	96	8	0	4	137	0	258	1,161
5:45 PM		0	0	0	4	0	7	0	1	0	2	110	9	0	2	147	0	282	1,149
Count Total		0	2	0	43	0	30	2	21	1	19	888	69	0	15	1,219	2	2,311	0
Peak Hour	All	0	2	0	18	0	15	0	12	1	9	457	35	0	6	624	1	1,180	0
	HV	0	0	0	0	0	0	0	0	0	0	7	0	0	1	18	0	26	0
	HV%	-	0%	-	0%	-	0%	-	0%	0%	0%	2%	0%	-	17%	3%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	5	8	13	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	5	6	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	2	5	7	0	0	0	0	0	0	2	0	0	2
5:00 PM	0	0	3	5	8	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	4	3	8	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	22	38	61	0	0	0	0	0	0	3	0	0	3
Peak Hour	0	0	7	19	26	0	0	0	0	0	0	3	0	0	3

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Driveway				Spencer St N				Meridian Ave E				Meridian Ave E				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	8	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	8	0	13	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	4	0	7	34
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	34
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	26
5:30 PM	0	0	0	0	0	1	0	0	0	0	4	0	0	0	3	0	8	28
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	0	6	27
Count Total	0	0	0	0	0	1	0	0	0	0	20	2	0	1	37	0	61	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	7	0	0	1	18	0	26	0

Two-Hour Count Summaries - Bikes

Interval Start	Driveway			Spencer St N			Meridian Ave E			Meridian Ave E			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 - 9/25/2022
 Site Code: 01

Time	Monday			Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Mid-Week Average		
	9/19/2022			9/20/2022			9/21/2022			9/22/2022			9/23/2022			9/24/2022			9/25/2022			Mid-Week Average		
	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total	NB	SB	Total
12:00 AM	29	41	70	30	37	67	38	39	77	42	55	97	49	42	91	87	71	158	89	101	190	37	44	80
1:00 AM	16	16	32	20	25	45	27	23	50	23	24	47	25	31	56	40	50	90	51	41	92	23	24	47
2:00 AM	20	20	40	18	16	34	20	28	48	25	20	45	29	29	58	29	49	78	35	44	79	21	21	42
3:00 AM	71	21	92	60	26	86	62	32	94	63	23	86	62	27	89	41	25	66	34	27	61	62	27	89
4:00 AM	190	52	242	225	67	292	225	61	286	229	59	288	203	52	255	42	34	76	50	24	74	226	62	289
5:00 AM	526	125	651	553	115	668	551	121	672	538	118	656	452	99	551	74	52	126	50	43	93	547	118	665
6:00 AM	661	208	869	736	262	998	720	277	997	711	253	964	586	245	831	128	92	220	64	64	128	722	264	986
7:00 AM	673	379	1,052	847	502	1,349	769	469	1,238	723	492	1,215	614	440	1,054	149	195	344	117	127	244	780	488	1,267
8:00 AM	533	421	954	742	402	1,144	638	404	1,042	618	388	1,006	535	374	909	256	316	572	208	197	405	666	398	1,064
9:00 AM	435	428	863	489	374	863	453	428	881	453	406	859	437	437	874	337	426	763	279	356	635	465	403	868
10:00 AM	379	465	844	404	356	760	338	425	763	374	447	821	350	486	836	351	545	896	296	432	728	372	409	781
11:00 AM	372	450	822	398	427	825	376	454	830	395	410	805	434	464	898	411	620	1,031	357	507	864	390	430	820
12:00 PM	359	499	858	388	455	843	388	495	883	343	483	826	427	524	951	440	669	1,109	367	584	951	373	478	851
1:00 PM	413	526	939	391	506	897	411	543	954	373	557	930	440	659	1,099	433	651	1,084	425	596	1,021	392	535	927
2:00 PM	412	810	1,222	419	730	1,149	424	846	1,270	474	788	1,262	448	809	1,257	504	639	1,143	371	621	992	439	788	1,227
3:00 PM	506	798	1,304	493	748	1,241	500	771	1,271	563	810	1,373	524	753	1,277	465	678	1,143	420	524	944	519	776	1,295
4:00 PM	454	628	1,082	454	601	1,055	483	706	1,189	525	595	1,120	448	625	1,073	453	569	1,022	428	523	951	487	634	1,121
5:00 PM	411	708	1,119	426	649	1,075	420	597	1,017	502	621	1,123	394	694	1,088	510	562	1,072	425	462	887	449	622	1,072
6:00 PM	344	568	912	380	537	917	363	642	1,005	342	667	1,009	375	561	936	451	442	893	423	437	860	362	615	977
7:00 PM	289	348	637	272	351	623	367	469	836	312	442	754	315	504	819	456	315	771	386	266	652	317	421	738
8:00 PM	288	234	522	236	264	500	339	264	603	335	257	592	338	258	596	426	271	697	377	213	590	303	262	565
9:00 PM	246	147	393	173	168	341	285	208	493	313	202	515	398	245	643	491	209	700	416	182	598	257	193	450
10:00 PM	232	89	321	77	80	157	467	117	584	274	107	381	411	164	575	492	170	662	402	98	500	273	101	374
11:00 PM	80	59	139	58	70	128	94	66	160	88	72	160	300	120	420	268	140	408	134	71	205	80	69	149
Total	7,939	8,040	15,979	8,289	7,768	16,057	8,758	8,485	17,243	8,638	8,296	16,934	8,594	8,642	17,236	7,334	7,790	15,124	6,204	6,540	12,744	8,562	8,183	16,745
Percent	50%	50%	-	52%	48%	-	51%	49%	-	51%	49%	-	50%	50%	-	48%	52%	-	49%	51%	-	51%	49%	-

1. Mid-week average includes data between Tuesday and Thursday.

Appendix C: Vehicular Speed Data

Vehicle Speed Report Summary

Location: Meridian Ave E S-O 36th St E

Count Direction: Northbound / Southbound

Date Range: 9/19/2022 to 9/25/2022

Site Code: 01

	Speed Range (mph)																	Total
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	Volume
Study Total																		
Northbound	1	18	286	570	941	9,465	25,625	14,292	3,681	705	138	25	7	1	0	0	1	55,756
Percent	0.0%	0.0%	0.5%	1.0%	1.7%	17.0%	46.0%	25.6%	6.6%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Southbound	27	158	700	1,190	4,704	26,655	19,788	2,177	143	6	5	1	2	0	3	0	2	55,561
Percent	0.0%	0.3%	1.3%	2.1%	8.5%	48.0%	35.6%	3.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
Total	28	176	986	1,760	5,645	36,120	45,413	16,469	3,824	711	143	26	9	1	3	0	3	111,317
Percent	0.0%	0.2%	0.9%	1.6%	5.1%	32.4%	40.8%	14.8%	3.4%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Total Study Percentile Speed Summary				Total Study Speed Statistics			
Northbound				Northbound			
50th Percentile (Median)		38.3	mph	Mean (Average) Speed		38.4	mph
85th Percentile		42.9	mph	10 mph Pace		33.3 - 43.3	mph
95th Percentile		46.4	mph	Percent in Pace		75.6	%
Southbound				Southbound			
50th Percentile (Median)		34.2	mph	Mean (Average) Speed		33.8	mph
85th Percentile		37.5	mph	10 mph Pace		29.4 - 39.4	mph
95th Percentile		39.7	mph	Percent in Pace		84.2	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Monday, September 19, 2022
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	7	10	9	1	0	1	0	0	0	0	0	0	29
1:00 AM	0	0	0	0	0	7	5	3	1	0	0	0	0	0	0	0	0	16
2:00 AM	0	0	0	0	0	3	11	5	0	1	0	0	0	0	0	0	0	20
3:00 AM	0	0	0	2	0	8	21	27	11	0	2	0	0	0	0	0	0	71
4:00 AM	0	0	0	3	0	2	36	93	37	14	5	0	0	0	0	0	0	190
5:00 AM	0	0	2	2	3	5	71	239	148	36	11	5	4	0	0	0	0	526
6:00 AM	0	0	1	2	4	15	180	343	100	16	0	0	0	0	0	0	0	661
7:00 AM	0	0	1	5	5	23	257	272	101	9	0	0	0	0	0	0	0	673
8:00 AM	0	0	4	7	9	42	237	194	32	7	0	1	0	0	0	0	0	533
9:00 AM	0	0	6	9	2	51	215	127	20	4	1	0	0	0	0	0	0	435
10:00 AM	0	0	2	6	6	65	176	94	28	2	0	0	0	0	0	0	0	379
11:00 AM	0	3	5	3	8	75	187	76	14	0	1	0	0	0	0	0	0	372
12:00 PM	0	0	4	7	5	82	198	55	8	0	0	0	0	0	0	0	0	359
1:00 PM	0	0	4	9	6	106	238	43	4	3	0	0	0	0	0	0	0	413
2:00 PM	0	1	3	3	4	95	220	73	13	0	0	0	0	0	0	0	0	412
3:00 PM	0	1	1	6	16	119	273	76	13	1	0	0	0	0	0	0	0	506
4:00 PM	0	1	2	1	22	115	228	76	8	1	0	0	0	0	0	0	0	454
5:00 PM	0	0	3	4	5	84	223	77	12	2	0	0	0	1	0	0	0	411
6:00 PM	0	0	0	1	8	68	191	59	16	1	0	0	0	0	0	0	0	344
7:00 PM	0	0	1	4	5	47	161	54	17	0	0	0	0	0	0	0	0	289
8:00 PM	0	0	0	0	6	64	145	66	4	2	1	0	0	0	0	0	0	288
9:00 PM	0	0	1	0	8	50	115	56	13	2	0	1	0	0	0	0	0	246
10:00 PM	0	0	0	0	0	26	120	66	16	4	0	0	0	0	0	0	0	232
11:00 PM	0	0	0	3	2	9	34	24	5	3	0	0	0	0	0	0	0	80
Total	0	6	40	77	125	1,168	3,552	2,207	622	108	22	7	4	1	0	0	0	7,939
Percent	0.0%	0.1%	0.5%	1.0%	1.6%	14.7%	44.7%	27.8%	7.8%	1.4%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	38.6	mph	Mean (Average) Speed	38.8	mph
85th Percentile	43.5	mph	10 mph Pace	33.9 - 43.9	mph
95th Percentile	46.9	mph	Percent in Pace	74.9	%

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Monday, September 19, 2022
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	5	20	14	2	0	0	0	0	0	0	0	0	0	41
1:00 AM	0	0	0	1	1	7	6	1	0	0	0	0	0	0	0	0	0	16
2:00 AM	0	0	0	0	5	7	8	0	0	0	0	0	0	0	0	0	0	20
3:00 AM	0	0	0	0	3	13	4	1	0	0	0	0	0	0	0	0	0	21
4:00 AM	0	0	0	0	4	23	22	2	1	0	0	0	0	0	0	0	0	52
5:00 AM	0	0	0	0	6	49	59	9	2	0	0	0	0	0	0	0	0	125
6:00 AM	0	1	1	2	15	82	96	11	0	0	0	0	0	0	0	0	0	208
7:00 AM	0	0	2	2	25	203	133	14	0	0	0	0	0	0	0	0	0	379
8:00 AM	0	0	5	2	43	233	131	6	1	0	0	0	0	0	0	0	0	421
9:00 AM	0	2	6	5	51	254	103	4	1	0	0	0	0	0	0	0	2	428
10:00 AM	2	1	5	5	50	272	123	7	0	0	0	0	0	0	0	0	0	465
11:00 AM	0	0	4	11	35	248	140	12	0	0	0	0	0	0	0	0	0	450
12:00 PM	0	1	6	7	28	259	180	17	1	0	0	0	0	0	0	0	0	499
1:00 PM	0	4	15	13	39	259	172	23	1	0	0	0	0	0	0	0	0	526
2:00 PM	1	1	10	25	37	385	328	21	2	0	0	0	0	0	0	0	0	810
3:00 PM	1	2	15	40	48	301	350	37	1	0	0	0	0	0	3	0	0	798
4:00 PM	1	4	22	23	33	221	278	45	1	0	0	0	0	0	0	0	0	628
5:00 PM	2	3	19	25	42	311	287	19	0	0	0	0	0	0	0	0	0	708
6:00 PM	0	2	9	22	42	259	210	24	0	0	0	0	0	0	0	0	0	568
7:00 PM	0	2	3	7	26	176	115	17	2	0	0	0	0	0	0	0	0	348
8:00 PM	0	0	2	1	26	114	81	10	0	0	0	0	0	0	0	0	0	234
9:00 PM	0	0	0	2	16	68	50	10	1	0	0	0	0	0	0	0	0	147
10:00 PM	0	0	0	1	8	45	30	5	0	0	0	0	0	0	0	0	0	89
11:00 PM	0	0	0	0	3	20	30	4	2	0	0	0	0	0	0	0	0	59
Total	7	23	124	194	591	3,829	2,950	301	16	0	0	0	0	0	3	0	2	8,040
Percent	0.1%	0.3%	1.5%	2.4%	7.4%	47.6%	36.7%	3.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.2	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.5	mph	10 mph Pace	29.4 - 39.4	mph
95th Percentile	39.5	mph	Percent in Pace	84.91	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Tuesday, September 20, 2022
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	0	6	13	7	4	0	0	0	0	0	0	0	0	30
1:00 AM	0	0	0	0	1	5	5	6	2	1	0	0	0	0	0	0	0	20
2:00 AM	0	0	0	0	0	4	8	4	2	0	0	0	0	0	0	0	0	18
3:00 AM	0	0	0	2	0	1	20	29	5	2	1	0	0	0	0	0	0	60
4:00 AM	0	0	0	2	1	3	32	114	50	19	4	0	0	0	0	0	0	225
5:00 AM	0	0	1	2	0	4	80	288	145	28	5	0	0	0	0	0	0	553
6:00 AM	0	0	4	8	6	37	189	335	132	22	2	1	0	0	0	0	0	736
7:00 AM	0	0	2	12	4	33	275	396	109	10	5	0	0	0	0	0	1	847
8:00 AM	0	0	4	9	12	46	340	292	37	2	0	0	0	0	0	0	0	742
9:00 AM	0	0	0	3	6	36	244	149	39	8	4	0	0	0	0	0	0	489
10:00 AM	0	1	3	4	15	72	200	88	20	1	0	0	0	0	0	0	0	404
11:00 AM	0	0	7	5	15	113	199	53	5	0	1	0	0	0	0	0	0	398
12:00 PM	0	0	3	5	9	110	207	48	6	0	0	0	0	0	0	0	0	388
1:00 PM	0	2	4	5	6	128	195	48	3	0	0	0	0	0	0	0	0	391
2:00 PM	0	0	2	4	4	79	236	79	10	4	1	0	0	0	0	0	0	419
3:00 PM	0	0	4	3	18	146	240	74	7	1	0	0	0	0	0	0	0	493
4:00 PM	0	0	2	0	12	116	241	68	13	2	0	0	0	0	0	0	0	454
5:00 PM	0	0	3	7	10	105	218	65	16	1	0	1	0	0	0	0	0	426
6:00 PM	0	0	4	3	4	56	202	94	12	4	1	0	0	0	0	0	0	380
7:00 PM	0	0	0	2	5	62	131	58	13	1	0	0	0	0	0	0	0	272
8:00 PM	0	0	0	1	7	54	127	41	2	3	1	0	0	0	0	0	0	236
9:00 PM	0	0	0	0	4	27	95	40	5	1	1	0	0	0	0	0	0	173
10:00 PM	0	0	0	0	1	13	31	27	5	0	0	0	0	0	0	0	0	77
11:00 PM	0	0	0	0	1	15	24	14	4	0	0	0	0	0	0	0	0	58
Total	0	3	43	77	141	1,271	3,552	2,417	646	110	26	2	0	0	0	0	1	8,289
Percent	0.0%	0.0%	0.5%	0.9%	1.7%	15.3%	42.9%	29.2%	7.8%	1.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	38.8	mph	Mean (Average) Speed	38.8	mph
85th Percentile	43.6	mph	10 mph Pace	33.7 - 43.7	mph
95th Percentile	46.9	mph	Percent in Pace	73.4	%

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Tuesday, September 20, 2022
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	2	0	0	3	17	13	2	0	0	0	0	0	0	0	0	0	37
1:00 AM	0	0	0	1	3	11	9	1	0	0	0	0	0	0	0	0	0	25
2:00 AM	0	0	0	0	3	7	5	0	1	0	0	0	0	0	0	0	0	16
3:00 AM	0	0	0	2	4	11	9	0	0	0	0	0	0	0	0	0	0	26
4:00 AM	0	0	2	2	8	22	29	4	0	0	0	0	0	0	0	0	0	67
5:00 AM	0	0	0	1	14	44	50	5	0	1	0	0	0	0	0	0	0	115
6:00 AM	0	1	2	3	22	132	95	7	0	0	0	0	0	0	0	0	0	262
7:00 AM	1	1	7	9	44	276	155	8	1	0	0	0	0	0	0	0	0	502
8:00 AM	0	4	10	11	57	189	120	11	0	0	0	0	0	0	0	0	0	402
9:00 AM	0	0	3	2	43	207	105	14	0	0	0	0	0	0	0	0	0	374
10:00 AM	0	0	4	5	29	201	109	7	1	0	0	0	0	0	0	0	0	356
11:00 AM	0	5	17	15	61	184	130	15	0	0	0	0	0	0	0	0	0	427
12:00 PM	1	1	4	5	66	211	147	20	0	0	0	0	0	0	0	0	0	455
1:00 PM	0	0	7	4	34	271	170	18	2	0	0	0	0	0	0	0	0	506
2:00 PM	2	1	10	10	47	373	259	28	0	0	0	0	0	0	0	0	0	730
3:00 PM	0	6	11	26	33	351	298	21	2	0	0	0	0	0	0	0	0	748
4:00 PM	0	8	7	12	58	216	264	35	1	0	0	0	0	0	0	0	0	601
5:00 PM	0	2	14	12	43	266	266	45	1	0	0	0	0	0	0	0	0	649
6:00 PM	0	3	3	2	14	253	236	26	0	0	0	0	0	0	0	0	0	537
7:00 PM	0	0	8	7	17	177	126	16	0	0	0	0	0	0	0	0	0	351
8:00 PM	0	0	2	4	35	126	80	14	2	0	1	0	0	0	0	0	0	264
9:00 PM	0	0	0	2	21	77	58	10	0	0	0	0	0	0	0	0	0	168
10:00 PM	0	0	1	2	5	33	31	7	1	0	0	0	0	0	0	0	0	80
11:00 PM	0	0	0	2	5	27	31	3	2	0	0	0	0	0	0	0	0	70
Total	4	34	112	139	669	3,682	2,795	317	14	1	1	0	0	0	0	0	0	7,768
Percent	0.1%	0.4%	1.4%	1.8%	8.6%	47.4%	36.0%	4.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.2	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.6	mph	10 mph Pace	29.3 - 39.3	mph
95th Percentile	39.7	mph	Percent in Pace	84.1	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Wednesday, September 21, 2022
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	7	17	7	3	2	1	0	0	0	0	0	0	38
1:00 AM	0	0	0	0	0	4	8	12	2	1	0	0	0	0	0	0	0	27
2:00 AM	0	0	0	0	0	1	10	7	2	0	0	0	0	0	0	0	0	20
3:00 AM	0	0	1	2	1	4	21	20	12	1	0	0	0	0	0	0	0	62
4:00 AM	0	0	0	1	0	4	24	93	69	25	8	1	0	0	0	0	0	225
5:00 AM	0	0	0	0	2	11	83	278	147	29	0	1	0	0	0	0	0	551
6:00 AM	0	0	0	11	9	32	172	292	139	48	13	3	1	0	0	0	0	720
7:00 AM	0	0	0	2	10	14	142	312	195	68	18	7	1	0	0	0	0	769
8:00 AM	0	0	2	12	9	16	168	308	102	21	0	0	0	0	0	0	0	638
9:00 AM	0	0	1	4	4	19	156	194	65	9	1	0	0	0	0	0	0	453
10:00 AM	0	1	1	3	2	33	172	94	30	2	0	0	0	0	0	0	0	338
11:00 AM	0	0	2	9	12	65	200	71	16	1	0	0	0	0	0	0	0	376
12:00 PM	0	0	4	7	10	100	202	58	7	0	0	0	0	0	0	0	0	388
1:00 PM	0	0	2	13	5	108	229	46	7	1	0	0	0	0	0	0	0	411
2:00 PM	0	0	2	5	5	103	217	81	11	0	0	0	0	0	0	0	0	424
3:00 PM	0	0	2	3	14	117	283	72	9	0	0	0	0	0	0	0	0	500
4:00 PM	0	0	3	8	11	124	257	69	10	1	0	0	0	0	0	0	0	483
5:00 PM	0	0	4	7	13	84	218	78	14	2	0	0	0	0	0	0	0	420
6:00 PM	0	0	4	2	3	81	189	74	9	1	0	0	0	0	0	0	0	363
7:00 PM	0	0	0	2	3	65	221	56	16	3	0	0	1	0	0	0	0	367
8:00 PM	0	0	0	2	6	70	169	77	15	0	0	0	0	0	0	0	0	339
9:00 PM	0	0	0	0	3	75	127	65	12	2	1	0	0	0	0	0	0	285
10:00 PM	0	0	0	0	5	83	241	115	18	2	3	0	0	0	0	0	0	467
11:00 PM	0	0	0	0	1	25	45	21	2	0	0	0	0	0	0	0	0	94
Total	0	1	28	93	129	1,245	3,571	2,500	912	219	45	12	3	0	0	0	0	8,758
Percent	0.0%	0.0%	0.3%	1.1%	1.5%	14.2%	40.8%	28.5%	10.4%	2.5%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	39.0	mph	Mean (Average) Speed	39.4	mph
85th Percentile	44.6	mph	10 mph Pace	34.0 - 44.0	mph
95th Percentile	48.4	mph	Percent in Pace	70.7	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01



Wednesday, September 21, 2022
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	1	0	0	2	16	14	6	0	0	0	0	0	0	0	0	0	39
1:00 AM	0	0	0	0	3	8	10	1	1	0	0	0	0	0	0	0	0	23
2:00 AM	0	0	0	0	2	12	13	1	0	0	0	0	0	0	0	0	0	28
3:00 AM	0	0	0	0	9	16	7	0	0	0	0	0	0	0	0	0	0	32
4:00 AM	0	0	2	1	8	26	21	2	1	0	0	0	0	0	0	0	0	61
5:00 AM	0	0	1	0	12	43	56	8	1	0	0	0	0	0	0	0	0	121
6:00 AM	0	1	1	8	39	134	86	7	1	0	0	0	0	0	0	0	0	277
7:00 AM	0	0	5	4	82	286	85	7	0	0	0	0	0	0	0	0	0	469
8:00 AM	0	1	4	4	53	246	95	1	0	0	0	0	0	0	0	0	0	404
9:00 AM	0	1	1	4	93	249	76	4	0	0	0	0	0	0	0	0	0	428
10:00 AM	0	0	4	4	47	269	96	5	0	0	0	0	0	0	0	0	0	425
11:00 AM	0	3	8	14	43	228	142	13	2	0	1	0	0	0	0	0	0	454
12:00 PM	0	0	6	4	24	246	199	15	1	0	0	0	0	0	0	0	0	495
1:00 PM	0	4	1	11	34	269	197	24	3	0	0	0	0	0	0	0	0	543
2:00 PM	0	3	9	14	41	426	328	24	1	0	0	0	0	0	0	0	0	846
3:00 PM	1	0	2	5	14	360	348	41	0	0	0	0	0	0	0	0	0	771
4:00 PM	0	0	12	11	42	290	306	44	1	0	0	0	0	0	0	0	0	706
5:00 PM	0	5	13	26	55	257	220	19	2	0	0	0	0	0	0	0	0	597
6:00 PM	0	3	6	22	42	298	245	25	1	0	0	0	0	0	0	0	0	642
7:00 PM	0	1	5	7	28	228	179	19	2	0	0	0	0	0	0	0	0	469
8:00 PM	0	1	6	10	32	139	71	5	0	0	0	0	0	0	0	0	0	264
9:00 PM	0	0	3	2	21	93	79	8	2	0	0	0	0	0	0	0	0	208
10:00 PM	0	0	0	1	13	46	49	7	1	0	0	0	0	0	0	0	0	117
11:00 PM	0	0	0	1	8	30	19	6	2	0	0	0	0	0	0	0	0	66
Total	1	24	89	153	747	4,215	2,941	292	22	0	1	0	0	0	0	0	0	8,485
Percent	0.0%	0.3%	1.0%	1.8%	8.8%	49.7%	34.7%	3.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.1	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.5	mph	10 mph Pace	29.6 - 39.6	mph
95th Percentile	39.6	mph	Percent in Pace	84.87	%

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Thursday, September 22, 2022
Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	2	13	15	8	2	1	0	0	0	0	0	0	0	42
1:00 AM	0	0	0	0	1	6	7	7	2	0	0	0	0	0	0	0	0	23
2:00 AM	0	0	0	0	0	3	15	5	1	1	0	0	0	0	0	0	0	25
3:00 AM	0	0	1	2	0	8	24	21	5	2	0	0	0	0	0	0	0	63
4:00 AM	0	0	0	1	0	4	35	100	76	12	1	0	0	0	0	0	0	229
5:00 AM	0	0	0	2	1	5	92	279	135	23	1	0	0	0	0	0	0	538
6:00 AM	0	0	1	7	4	34	236	324	94	11	0	0	0	0	0	0	0	711
7:00 AM	0	1	2	8	7	52	292	279	71	8	3	0	0	0	0	0	0	723
8:00 AM	0	0	5	2	6	55	294	224	30	2	0	0	0	0	0	0	0	618
9:00 AM	0	0	3	13	6	87	227	94	20	2	1	0	0	0	0	0	0	453
10:00 AM	0	1	5	2	5	79	222	51	9	0	0	0	0	0	0	0	0	374
11:00 AM	0	1	4	4	16	120	212	37	1	0	0	0	0	0	0	0	0	395
12:00 PM	0	0	2	6	8	65	198	59	3	1	1	0	0	0	0	0	0	343
1:00 PM	0	0	3	11	11	77	193	68	8	2	0	0	0	0	0	0	0	373
2:00 PM	0	0	3	8	12	134	252	60	4	1	0	0	0	0	0	0	0	474
3:00 PM	0	0	1	5	9	148	302	80	11	7	0	0	0	0	0	0	0	563
4:00 PM	0	0	6	6	20	135	258	91	7	1	1	0	0	0	0	0	0	525
5:00 PM	0	0	2	5	9	97	259	115	11	4	0	0	0	0	0	0	0	502
6:00 PM	0	0	2	2	4	62	185	77	7	1	2	0	0	0	0	0	0	342
7:00 PM	0	0	1	2	3	61	151	78	15	1	0	0	0	0	0	0	0	312
8:00 PM	0	0	1	4	10	91	162	48	16	0	3	0	0	0	0	0	0	335
9:00 PM	0	0	0	0	5	70	178	51	6	2	1	0	0	0	0	0	0	313
10:00 PM	0	0	0	0	7	63	122	66	14	2	0	0	0	0	0	0	0	274
11:00 PM	0	0	0	0	4	14	40	22	7	1	0	0	0	0	0	0	0	88
Total	0	3	42	91	150	1,483	3,971	2,244	555	85	14	0	0	0	0	0	0	8,638
Percent	0.0%	0.0%	0.5%	1.1%	1.7%	17.2%	46.0%	26.0%	6.4%	1.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	38.1	mph	Mean (Average) Speed	38.3	mph
85th Percentile	42.8	mph	10 mph Pace	33.1 - 43.1	mph
95th Percentile	46.1	mph	Percent in Pace	76.5	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Thursday, September 22, 2022
 Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	1	6	19	22	5	0	1	0	0	0	0	0	0	0	55
1:00 AM	0	1	1	2	3	11	5	1	0	0	0	0	0	0	0	0	0	24
2:00 AM	0	0	0	1	2	9	7	1	0	0	0	0	0	0	0	0	0	20
3:00 AM	0	0	0	0	2	14	6	1	0	0	0	0	0	0	0	0	0	23
4:00 AM	0	0	1	0	7	30	18	2	1	0	0	0	0	0	0	0	0	59
5:00 AM	0	0	0	1	11	35	57	12	2	0	0	0	0	0	0	0	0	118
6:00 AM	0	3	1	2	12	89	131	15	0	0	0	0	0	0	0	0	0	253
7:00 AM	0	0	0	2	43	250	176	20	1	0	0	0	0	0	0	0	0	492
8:00 AM	0	3	7	9	27	197	134	11	0	0	0	0	0	0	0	0	0	388
9:00 AM	0	0	2	6	52	235	106	5	0	0	0	0	0	0	0	0	0	406
10:00 AM	0	1	8	16	73	240	97	9	3	0	0	0	0	0	0	0	0	447
11:00 AM	0	0	2	9	52	224	114	9	0	0	0	0	0	0	0	0	0	410
12:00 PM	0	0	2	10	39	251	165	14	2	0	0	0	0	0	0	0	0	483
1:00 PM	0	0	8	20	57	281	175	15	1	0	0	0	0	0	0	0	0	557
2:00 PM	1	2	15	14	57	427	247	23	2	0	0	0	0	0	0	0	0	788
3:00 PM	0	2	9	44	70	356	293	36	0	0	0	0	0	0	0	0	0	810
4:00 PM	0	4	11	20	44	250	235	30	1	0	0	0	0	0	0	0	0	595
5:00 PM	0	0	6	12	54	283	237	28	1	0	0	0	0	0	0	0	0	621
6:00 PM	3	6	18	26	37	338	219	19	1	0	0	0	0	0	0	0	0	667
7:00 PM	1	3	7	15	41	202	161	12	0	0	0	0	0	0	0	0	0	442
8:00 PM	0	1	9	1	24	134	77	11	0	0	0	0	0	0	0	0	0	257
9:00 PM	0	2	4	5	20	86	74	9	2	0	0	0	0	0	0	0	0	202
10:00 PM	1	1	1	3	9	48	34	8	2	0	0	0	0	0	0	0	0	107
11:00 PM	0	0	3	1	7	34	26	1	0	0	0	0	0	0	0	0	0	72
Total	6	29	116	220	749	4,043	2,816	297	19	1	0	0	0	0	0	0	0	8,296
Percent	0.1%	0.3%	1.4%	2.7%	9.0%	48.7%	33.9%	3.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.0	mph	Mean (Average) Speed	33.6	mph
85th Percentile	37.4	mph	10 mph Pace	29.1 - 39.1	mph
95th Percentile	39.6	mph	Percent in Pace	83.59	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Friday, September 23, 2022
 Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	9	20	15	3	0	0	0	0	0	0	0	0	49
1:00 AM	0	0	0	0	1	5	9	7	3	0	0	0	0	0	0	0	0	25
2:00 AM	0	0	0	0	0	5	13	9	2	0	0	0	0	0	0	0	0	29
3:00 AM	0	0	2	3	0	13	24	15	4	1	0	0	0	0	0	0	0	62
4:00 AM	0	0	0	1	0	5	57	90	37	10	2	1	0	0	0	0	0	203
5:00 AM	0	0	2	2	1	18	98	232	86	10	3	0	0	0	0	0	0	452
6:00 AM	0	0	3	11	7	32	249	223	53	6	2	0	0	0	0	0	0	586
7:00 AM	0	1	3	13	15	67	307	177	26	4	1	0	0	0	0	0	0	614
8:00 AM	0	1	3	6	19	58	285	136	23	4	0	0	0	0	0	0	0	535
9:00 AM	0	1	8	4	6	58	233	105	18	4	0	0	0	0	0	0	0	437
10:00 AM	0	0	7	8	7	55	187	71	13	2	0	0	0	0	0	0	0	350
11:00 AM	0	0	8	13	18	118	211	55	11	0	0	0	0	0	0	0	0	434
12:00 PM	0	0	6	4	12	89	214	82	11	9	0	0	0	0	0	0	0	427
1:00 PM	0	0	12	14	12	76	227	85	10	4	0	0	0	0	0	0	0	440
2:00 PM	0	0	1	11	6	81	250	90	9	0	0	0	0	0	0	0	0	448
3:00 PM	0	0	1	3	6	116	311	72	11	4	0	0	0	0	0	0	0	524
4:00 PM	0	0	1	8	9	114	247	61	6	1	1	0	0	0	0	0	0	448
5:00 PM	0	0	4	2	14	97	184	83	8	2	0	0	0	0	0	0	0	394
6:00 PM	0	0	3	1	0	53	198	107	10	3	0	0	0	0	0	0	0	375
7:00 PM	0	0	3	2	7	70	171	55	5	2	0	0	0	0	0	0	0	315
8:00 PM	0	0	0	6	7	82	168	62	11	2	0	0	0	0	0	0	0	338
9:00 PM	0	0	0	2	9	98	215	63	9	2	0	0	0	0	0	0	0	398
10:00 PM	0	0	1	0	3	96	209	90	7	5	0	0	0	0	0	0	0	411
11:00 PM	0	0	3	1	4	54	155	66	13	2	2	0	0	0	0	0	0	300
Total	0	3	71	115	165	1,469	4,242	2,051	389	77	11	1	0	0	0	0	0	8,594
Percent	0.0%	0.0%	0.8%	1.3%	1.9%	17.1%	49.4%	23.9%	4.5%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	37.9	mph	Mean (Average) Speed	37.9	mph
85th Percentile	42.2	mph	10 mph Pace	33.0 - 43.0	mph
95th Percentile	45.4	mph	Percent in Pace	78.7	%

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Friday, September 23, 2022
Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	6	16	14	6	0	0	0	0	0	0	0	0	0	42
1:00 AM	0	0	1	1	2	13	7	7	0	0	0	0	0	0	0	0	0	31
2:00 AM	0	0	0	1	2	10	13	3	0	0	0	0	0	0	0	0	0	29
3:00 AM	0	0	0	2	5	7	10	3	0	0	0	0	0	0	0	0	0	27
4:00 AM	0	0	0	0	4	22	22	3	0	1	0	0	0	0	0	0	0	52
5:00 AM	0	1	1	1	1	37	55	3	0	0	0	0	0	0	0	0	0	99
6:00 AM	0	0	2	5	12	101	107	17	1	0	0	0	0	0	0	0	0	245
7:00 AM	0	2	5	8	53	241	120	11	0	0	0	0	0	0	0	0	0	440
8:00 AM	0	2	8	12	48	217	81	4	2	0	0	0	0	0	0	0	0	374
9:00 AM	0	0	4	1	69	253	99	9	2	0	0	0	0	0	0	0	0	437
10:00 AM	2	0	6	15	48	251	154	10	0	0	0	0	0	0	0	0	0	486
11:00 AM	0	0	7	15	45	243	141	13	0	0	0	0	0	0	0	0	0	464
12:00 PM	0	1	4	8	53	253	180	21	1	0	3	0	0	0	0	0	0	524
1:00 PM	0	2	5	9	42	354	227	20	0	0	0	0	0	0	0	0	0	659
2:00 PM	0	3	17	42	79	352	267	43	2	2	0	0	2	0	0	0	0	809
3:00 PM	0	1	19	27	39	325	308	32	2	0	0	0	0	0	0	0	0	753
4:00 PM	3	1	11	18	63	238	257	31	3	0	0	0	0	0	0	0	0	625
5:00 PM	2	3	9	24	57	334	246	18	1	0	0	0	0	0	0	0	0	694
6:00 PM	0	2	7	17	24	274	212	24	1	0	0	0	0	0	0	0	0	561
7:00 PM	0	1	6	12	43	256	167	17	2	0	0	0	0	0	0	0	0	504
8:00 PM	0	0	2	5	22	131	87	10	1	0	0	0	0	0	0	0	0	258
9:00 PM	0	2	1	5	19	115	86	16	0	1	0	0	0	0	0	0	0	245
10:00 PM	0	0	1	3	23	76	50	10	1	0	0	0	0	0	0	0	0	164
11:00 PM	0	0	1	2	16	61	31	7	2	0	0	0	0	0	0	0	0	120
Total	7	21	117	233	775	4,180	2,941	338	21	4	3	0	2	0	0	0	0	8,642
Percent	0.1%	0.2%	1.4%	2.7%	9.0%	48.4%	34.0%	3.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.0	mph	Mean (Average) Speed	33.7	mph
85th Percentile	37.5	mph	10 mph Pace	29.2 - 39.2	mph
95th Percentile	39.7	mph	Percent in Pace	83.18	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Saturday, September 24, 2022

Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	2	8	40	23	7	5	1	1	0	0	0	0	0	87
1:00 AM	0	0	0	1	1	8	19	6	4	1	0	0	0	0	0	0	0	40
2:00 AM	0	0	0	0	0	8	14	5	1	1	0	0	0	0	0	0	0	29
3:00 AM	0	0	2	0	0	2	18	13	5	1	0	0	0	0	0	0	0	41
4:00 AM	0	0	0	1	0	3	13	19	6	0	0	0	0	0	0	0	0	42
5:00 AM	0	0	0	0	1	10	24	34	5	0	0	0	0	0	0	0	0	74
6:00 AM	0	0	0	1	1	16	57	43	10	0	0	0	0	0	0	0	0	128
7:00 AM	0	0	0	1	0	13	47	66	19	2	1	0	0	0	0	0	0	149
8:00 AM	0	0	2	2	0	12	116	98	16	8	1	1	0	0	0	0	0	256
9:00 AM	0	0	4	3	6	22	140	119	37	6	0	0	0	0	0	0	0	337
10:00 AM	0	0	5	6	0	45	171	95	24	5	0	0	0	0	0	0	0	351
11:00 AM	0	0	1	6	5	102	219	64	11	2	1	0	0	0	0	0	0	411
12:00 PM	0	0	2	6	7	89	234	87	12	3	0	0	0	0	0	0	0	440
1:00 PM	0	0	1	4	11	111	235	61	8	2	0	0	0	0	0	0	0	433
2:00 PM	0	0	4	4	8	106	285	78	18	1	0	0	0	0	0	0	0	504
3:00 PM	0	1	5	3	10	131	219	81	11	3	1	0	0	0	0	0	0	465
4:00 PM	0	0	3	6	14	124	217	76	10	2	1	0	0	0	0	0	0	453
5:00 PM	0	0	1	2	7	109	286	92	9	3	1	0	0	0	0	0	0	510
6:00 PM	0	0	1	6	4	72	224	131	12	0	0	1	0	0	0	0	0	451
7:00 PM	0	0	2	1	5	109	215	98	25	1	0	0	0	0	0	0	0	456
8:00 PM	0	0	0	0	8	159	191	56	12	0	0	0	0	0	0	0	0	426
9:00 PM	0	0	1	1	7	131	253	74	15	8	1	0	0	0	0	0	0	491
10:00 PM	0	0	2	4	13	133	238	83	17	2	0	0	0	0	0	0	0	492
11:00 PM	0	0	1	2	4	67	147	41	4	2	0	0	0	0	0	0	0	268
Total	0	1	37	60	114	1,590	3,622	1,543	298	58	8	3	0	0	0	0	0	7,334
Percent	0.0%	0.0%	0.5%	0.8%	1.6%	21.7%	49.4%	21.0%	4.1%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	37.6	mph	Mean (Average) Speed	37.7	mph
85th Percentile	41.7	mph	10 mph Pace	32.8 - 42.8	mph
95th Percentile	45.0	mph	Percent in Pace	79.9	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

Saturday, September 24, 2022

Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	1	10	30	23	6	1	0	0	0	0	0	0	0	0	71
1:00 AM	0	0	1	0	4	20	23	2	0	0	0	0	0	0	0	0	0	50
2:00 AM	0	0	1	2	5	22	13	5	1	0	0	0	0	0	0	0	0	49
3:00 AM	0	0	1	0	5	11	8	0	0	0	0	0	0	0	0	0	0	25
4:00 AM	0	0	0	0	6	13	14	1	0	0	0	0	0	0	0	0	0	34
5:00 AM	0	0	0	0	8	29	15	0	0	0	0	0	0	0	0	0	0	52
6:00 AM	0	0	0	0	12	51	23	3	3	0	0	0	0	0	0	0	0	92
7:00 AM	0	0	0	1	16	83	81	14	0	0	0	0	0	0	0	0	0	195
8:00 AM	0	0	2	6	29	170	98	10	1	0	0	0	0	0	0	0	0	316
9:00 AM	0	0	2	2	30	249	125	15	3	0	0	0	0	0	0	0	0	426
10:00 AM	0	2	5	12	70	274	157	23	2	0	0	0	0	0	0	0	0	545
11:00 AM	0	1	7	12	35	295	245	25	0	0	0	0	0	0	0	0	0	620
12:00 PM	0	3	11	21	64	333	219	18	0	0	0	0	0	0	0	0	0	669
1:00 PM	0	1	12	17	57	306	239	19	0	0	0	0	0	0	0	0	0	651
2:00 PM	0	8	19	25	25	269	266	27	0	0	0	0	0	0	0	0	0	639
3:00 PM	0	0	4	9	61	306	275	20	3	0	0	0	0	0	0	0	0	678
4:00 PM	0	0	5	15	49	225	249	24	2	0	0	0	0	0	0	0	0	569
5:00 PM	0	1	2	6	57	277	189	27	3	0	0	0	0	0	0	0	0	562
6:00 PM	0	0	4	16	34	209	159	19	1	0	0	0	0	0	0	0	0	442
7:00 PM	0	0	0	1	41	166	94	12	1	0	0	0	0	0	0	0	0	315
8:00 PM	0	0	4	6	37	125	92	7	0	0	0	0	0	0	0	0	0	271
9:00 PM	0	0	1	6	30	96	68	6	2	0	0	0	0	0	0	0	0	209
10:00 PM	0	1	1	1	28	96	35	7	1	0	0	0	0	0	0	0	0	170
11:00 PM	0	1	2	1	19	71	35	10	1	0	0	0	0	0	0	0	0	140
Total	0	18	84	160	732	3,726	2,745	300	25	0	0	0	0	0	0	0	0	7,790
Percent	0.0%	0.2%	1.1%	2.1%	9.4%	47.8%	35.2%	3.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.1	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.5	mph	10 mph Pace	29.4 - 39.4	mph
95th Percentile	39.6	mph	Percent in Pace	84.06	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01



Sunday, September 25, 2022

Northbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	0	1	18	50	16	1	1	1	0	0	0	0	0	0	89
1:00 AM	0	0	0	0	0	9	25	11	5	1	0	0	0	0	0	0	0	51
2:00 AM	0	0	0	0	0	9	13	6	7	0	0	0	0	0	0	0	0	35
3:00 AM	0	0	0	1	1	2	9	13	5	3	0	0	0	0	0	0	0	34
4:00 AM	0	0	0	0	0	4	18	23	4	0	1	0	0	0	0	0	0	50
5:00 AM	0	0	0	0	1	5	17	20	6	1	0	0	0	0	0	0	0	50
6:00 AM	0	0	0	0	1	9	26	24	2	1	1	0	0	0	0	0	0	64
7:00 AM	0	0	1	3	2	7	40	51	9	3	1	0	0	0	0	0	0	117
8:00 AM	0	0	1	2	2	16	87	76	22	2	0	0	0	0	0	0	0	208
9:00 AM	0	0	3	8	1	19	109	103	29	4	3	0	0	0	0	0	0	279
10:00 AM	0	0	3	3	1	21	143	95	27	2	1	0	0	0	0	0	0	296
11:00 AM	0	0	2	4	7	50	191	91	9	3	0	0	0	0	0	0	0	357
12:00 PM	0	0	1	5	7	79	197	67	7	4	0	0	0	0	0	0	0	367
1:00 PM	0	0	3	3	6	100	239	65	8	1	0	0	0	0	0	0	0	425
2:00 PM	0	0	2	5	12	81	202	59	8	2	0	0	0	0	0	0	0	371
3:00 PM	0	0	1	7	9	87	205	89	19	3	0	0	0	0	0	0	0	420
4:00 PM	1	0	3	2	6	108	219	71	15	3	0	0	0	0	0	0	0	428
5:00 PM	0	0	1	4	7	102	219	81	9	1	1	0	0	0	0	0	0	425
6:00 PM	0	1	2	2	5	60	236	91	22	3	1	0	0	0	0	0	0	423
7:00 PM	0	0	1	3	4	92	217	60	8	1	0	0	0	0	0	0	0	386
8:00 PM	0	0	0	0	8	105	185	67	9	3	0	0	0	0	0	0	0	377
9:00 PM	0	0	0	0	19	118	208	60	10	0	1	0	0	0	0	0	0	416
10:00 PM	0	0	0	2	11	112	199	60	13	4	1	0	0	0	0	0	0	402
11:00 PM	0	0	0	3	6	26	61	31	5	2	0	0	0	0	0	0	0	134
Total	1	1	25	57	117	1,239	3,115	1,330	259	48	12	0	0	0	0	0	0	6,204
Percent	0.0%	0.0%	0.4%	0.9%	1.9%	20.0%	50.2%	21.4%	4.2%	0.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	37.6	mph	Mean (Average) Speed	37.7	mph
85th Percentile	41.8	mph	10 mph Pace	33.1 - 43.1	mph
95th Percentile	45.1	mph	Percent in Pace	79.7	%

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Sunday, September 25, 2022

Southbound

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	3	2	8	50	32	6	0	0	0	0	0	0	0	0	0	101
1:00 AM	0	0	1	1	3	16	16	4	0	0	0	0	0	0	0	0	0	41
2:00 AM	0	0	0	0	4	15	20	5	0	0	0	0	0	0	0	0	0	44
3:00 AM	0	0	0	0	6	9	11	1	0	0	0	0	0	0	0	0	0	27
4:00 AM	0	0	0	2	3	9	9	1	0	0	0	0	0	0	0	0	0	24
5:00 AM	0	0	1	0	6	22	11	0	3	0	0	0	0	0	0	0	0	43
6:00 AM	0	0	0	0	9	30	23	0	2	0	0	0	0	0	0	0	0	64
7:00 AM	0	0	0	1	9	51	50	15	1	0	0	0	0	0	0	0	0	127
8:00 AM	0	0	0	0	11	102	75	8	1	0	0	0	0	0	0	0	0	197
9:00 AM	0	1	3	7	19	178	139	9	0	0	0	0	0	0	0	0	0	356
10:00 AM	0	1	2	6	23	201	182	15	2	0	0	0	0	0	0	0	0	432
11:00 AM	2	0	10	11	39	258	171	16	0	0	0	0	0	0	0	0	0	507
12:00 PM	0	2	3	2	40	260	238	36	3	0	0	0	0	0	0	0	0	584
1:00 PM	0	2	8	8	29	266	254	28	1	0	0	0	0	0	0	0	0	596
2:00 PM	0	0	5	5	21	309	251	29	1	0	0	0	0	0	0	0	0	621
3:00 PM	0	0	6	13	29	230	227	18	1	0	0	0	0	0	0	0	0	524
4:00 PM	0	0	4	13	31	229	221	24	0	0	0	1	0	0	0	0	0	523
5:00 PM	0	1	6	10	22	194	196	30	3	0	0	0	0	0	0	0	0	462
6:00 PM	0	0	2	5	28	155	206	36	5	0	0	0	0	0	0	0	0	437
7:00 PM	0	1	2	2	18	135	90	18	0	0	0	0	0	0	0	0	0	266
8:00 PM	0	0	1	1	33	96	70	9	3	0	0	0	0	0	0	0	0	213
9:00 PM	0	1	1	2	29	92	53	4	0	0	0	0	0	0	0	0	0	182
10:00 PM	0	0	0	0	10	47	31	10	0	0	0	0	0	0	0	0	0	98
11:00 PM	0	0	0	0	11	26	24	10	0	0	0	0	0	0	0	0	0	71
Total	2	9	58	91	441	2,980	2,600	332	26	0	0	1	0	0	0	0	0	6,540
Percent	0.0%	0.1%	0.9%	1.4%	6.7%	45.6%	39.8%	5.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily Percentile Speed Summary			Speed Statistics		
50th Percentile (Median)	34.6	mph	Mean (Average) Speed	34.4	mph
85th Percentile	37.9	mph	10 mph Pace	29.8 - 39.8	mph
95th Percentile	40.2	mph	Percent in Pace	85.47	%

Location: Meridian Ave E S-O 36th St E
 Date Range: 9/19/2022 to 9/25/2022
 Site Code: 01

**Total Study Average
Northbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	0	0	1	10	24	12	3	1	1	0	0	0	0	0	0	52
1:00 AM	0	0	0	0	1	6	11	7	3	1	0	0	0	0	0	0	0	29
2:00 AM	0	0	0	0	0	5	12	6	2	0	0	0	0	0	0	0	0	25
3:00 AM	0	0	1	2	0	5	20	20	7	1	0	0	0	0	0	0	0	56
4:00 AM	0	0	0	1	0	4	31	76	40	11	3	0	0	0	0	0	0	166
5:00 AM	0	0	1	1	1	8	66	196	96	18	3	1	1	0	0	0	0	392
6:00 AM	0	0	1	6	5	25	158	226	76	15	3	1	0	0	0	0	0	516
7:00 AM	0	0	1	6	6	30	194	222	76	15	4	1	0	0	0	0	0	555
8:00 AM	0	0	3	6	8	35	218	190	37	7	0	0	0	0	0	0	0	504
9:00 AM	0	0	4	6	4	42	189	127	33	5	1	0	0	0	0	0	0	411
10:00 AM	0	0	4	5	5	53	182	84	22	2	0	0	0	0	0	0	0	357
11:00 AM	0	1	4	6	12	92	203	64	10	1	0	0	0	0	0	0	0	393
12:00 PM	0	0	3	6	8	88	207	65	8	2	0	0	0	0	0	0	0	387
1:00 PM	0	0	4	8	8	101	222	59	7	2	0	0	0	0	0	0	0	411
2:00 PM	0	0	2	6	7	97	237	74	10	1	0	0	0	0	0	0	0	434
3:00 PM	0	0	2	4	12	123	262	78	12	3	0	0	0	0	0	0	0	496
4:00 PM	0	0	3	4	13	119	238	73	10	2	0	0	0	0	0	0	0	462
5:00 PM	0	0	3	4	9	97	230	84	11	2	0	0	0	0	0	0	0	440
6:00 PM	0	0	2	2	4	65	204	90	13	2	1	0	0	0	0	0	0	383
7:00 PM	0	0	1	2	5	72	181	66	14	1	0	0	0	0	0	0	0	342
8:00 PM	0	0	0	2	7	89	164	60	10	1	1	0	0	0	0	0	0	334
9:00 PM	0	0	0	0	8	81	170	58	10	2	1	0	0	0	0	0	0	330
10:00 PM	0	0	0	1	6	75	166	72	13	3	1	0	0	0	0	0	0	337
11:00 PM	0	0	1	1	3	30	72	31	6	1	0	0	0	0	0	0	0	145
Total	0	1	40	79	133	1,352	3,661	2,040	529	99	19	3	1	0	0	0	0	7,957
Percent	0.0%	0.0%	0.5%	1.0%	1.7%	17.0%	46.0%	25.6%	6.6%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	38.3	mph	Mean (Average) Speed	38.4	mph
85th Percentile	42.9	mph	10 mph Pace	33.3 - 43.3	mph
95th Percentile	46.4	mph	Percent in Pace	75.6	%

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

**Total Study Average
Southbound**

Time	Speed Range (mph)																	Total Volume
	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60	60 - 65	65 - 70	70 - 75	75 - 80	80 - 85	85 +	
12:00 AM	0	0	1	1	6	24	19	5	0	0	0	0	0	0	0	0	0	56
1:00 AM	0	0	1	1	3	12	11	2	0	0	0	0	0	0	0	0	0	30
2:00 AM	0	0	0	1	3	12	11	2	0	0	0	0	0	0	0	0	0	29
3:00 AM	0	0	0	1	5	12	8	1	0	0	0	0	0	0	0	0	0	27
4:00 AM	0	0	1	1	6	21	19	2	0	0	0	0	0	0	0	0	0	50
5:00 AM	0	0	0	0	8	37	43	5	1	0	0	0	0	0	0	0	0	94
6:00 AM	0	1	1	3	17	88	80	9	1	0	0	0	0	0	0	0	0	200
7:00 AM	0	0	3	4	39	199	114	13	0	0	0	0	0	0	0	0	0	372
8:00 AM	0	1	5	6	38	193	105	7	1	0	0	0	0	0	0	0	0	356
9:00 AM	0	1	3	4	51	232	108	9	1	0	0	0	0	0	0	0	0	409
10:00 AM	1	1	5	9	49	244	131	11	1	0	0	0	0	0	0	0	0	452
11:00 AM	0	1	8	12	44	240	155	15	0	0	0	0	0	0	0	0	0	475
12:00 PM	0	1	5	8	45	259	190	20	1	0	0	0	0	0	0	0	0	529
1:00 PM	0	2	8	12	42	287	205	21	1	0	0	0	0	0	0	0	0	578
2:00 PM	1	3	12	19	44	363	278	28	1	0	0	0	0	0	0	0	0	749
3:00 PM	0	2	9	23	42	318	300	29	1	0	0	0	0	0	0	0	0	724
4:00 PM	1	2	10	16	46	238	259	33	1	0	0	0	0	0	0	0	0	606
5:00 PM	1	2	10	16	47	275	234	27	2	0	0	0	0	0	0	0	0	614
6:00 PM	0	2	7	16	32	255	212	25	1	0	0	0	0	0	0	0	0	550
7:00 PM	0	1	4	7	31	191	133	16	1	0	0	0	0	0	0	0	0	384
8:00 PM	0	0	4	4	30	124	80	9	1	0	0	0	0	0	0	0	0	252
9:00 PM	0	1	1	3	22	90	67	9	1	0	0	0	0	0	0	0	0	194
10:00 PM	0	0	1	2	14	56	37	8	1	0	0	0	0	0	0	0	0	119
11:00 PM	0	0	1	1	10	38	28	6	1	0	0	0	0	0	0	0	0	85
Total	4	21	100	170	674	3,808	2,827	312	18	0	0	0	0	0	0	0	0	7,934
Percent	0.1%	0.3%	1.3%	2.1%	8.5%	48.0%	35.6%	3.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Note: Average only considered on days with 24-hours of data.

Total Study Percentile Speed Summary			Total Study Speed Statistics		
50th Percentile (Median)	34.2	mph	Mean (Average) Speed	33.8	mph
85th Percentile	37.5	mph	10 mph Pace	29.4 - 39.4	mph
95th Percentile	39.7	mph	Percent in Pace	84.2	%

Appendix C: Vehicle Classifications

Vehicle Classification Report Summary

Location: Meridian Ave E S-O 36th St E

Count Direction: Northbound / Southbound

Date Range: 9/19/2022 to 9/25/2022

Site Code: 01

	FHWA Vehicle Classification													Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	Volume
Study Total														
Northbound	239	34,238	13,947	101	6,466	152	0	99	178	139	14	9	174	55,756
Percent	0.4%	61.4%	25.0%	0.2%	11.6%	0.3%	0.0%	0.2%	0.3%	0.2%	0.0%	0.0%	0.3%	100%
Southbound	240	42,236	8,211	60	4,313	170	0	38	155	48	0	1	89	55,561
Percent	0.4%	76.0%	14.8%	0.1%	7.8%	0.3%	0.0%	0.1%	0.3%	0.1%	0.0%	0.0%	0.2%	100%
Total	479	76,474	22,158	161	10,779	322	0	137	333	187	14	10	263	111,317
Percent	0.4%	68.7%	19.9%	0.1%	9.7%	0.3%	0.0%	0.1%	0.3%	0.2%	0.0%	0.0%	0.2%	100%

FHWA Vehicle Classification	
Class 1 - Motorcycles	Class 8 - Four or Fewer Axle Single-Trailer Trucks
Class 2 - Passenger Cars	Class 9 - Five-Axle Single-Trailer Trucks
Class 3 - Other Two-Axle, Four-Tire Single Unit Vehicles	Class 10 - Six or More Axle Single-Trailer Trucks
Class 4 - Buses	Class 11 - Five or fewer Axle Multi-Trailer Trucks
Class 5 - Two-Axle, Six-Tire, Single-Unit Trucks	Class 12 - Six-Axle Multi-Trailer Trucks
Class 6 - Three-Axle Single-Unit Trucks	Class 13 - Seven or More Axle Multi-Trailer Trucks
Class 7 - Four or More Axle Single-Unit Trucks	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Monday, September 19, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	21	5	0	2	0	0	0	0	0	0	0	0	29
1:00 AM	0	12	1	0	2	0	0	0	1	0	0	0	0	16
2:00 AM	0	13	6	0	1	0	0	0	0	0	0	0	0	20
3:00 AM	2	39	17	0	12	0	0	0	1	0	0	0	0	71
4:00 AM	0	60	88	1	38	0	0	2	1	0	0	0	0	190
5:00 AM	0	129	250	0	142	1	0	1	1	2	0	0	0	526
6:00 AM	1	235	284	3	128	3	0	4	2	1	0	0	0	661
7:00 AM	0	282	261	2	114	1	0	4	4	3	0	0	2	673
8:00 AM	0	265	177	2	84	0	0	2	2	1	0	0	0	533
9:00 AM	1	227	137	2	64	1	0	0	2	0	0	0	1	435
10:00 AM	3	192	117	0	60	0	0	0	2	2	0	0	3	379
11:00 AM	1	246	68	0	49	0	0	0	3	1	0	0	4	372
12:00 PM	1	245	70	0	32	2	0	0	3	0	0	0	6	359
1:00 PM	3	282	74	2	46	1	0	0	1	2	0	0	2	413
2:00 PM	2	310	61	0	36	1	0	0	0	0	0	0	2	412
3:00 PM	1	389	66	2	39	1	0	1	0	3	0	0	4	506
4:00 PM	2	326	77	0	41	0	0	2	2	2	1	0	1	454
5:00 PM	0	297	81	1	29	0	0	1	1	0	0	0	1	411
6:00 PM	1	268	54	0	19	1	0	0	1	0	0	0	0	344
7:00 PM	0	196	60	0	30	0	0	0	1	0	1	0	1	289
8:00 PM	4	189	63	0	31	0	0	0	0	1	0	0	0	288
9:00 PM	0	162	63	0	18	1	0	0	2	0	0	0	0	246
10:00 PM	0	126	85	0	20	0	0	0	0	1	0	0	0	232
11:00 PM	1	41	32	0	5	0	0	0	1	0	0	0	0	80
Total	24	4,552	2,197	15	1,042	13	0	17	31	19	2	0	27	7,939
Percent	0.3%	57.3%	27.7%	0.2%	13.1%	0.2%	0.0%	0.2%	0.4%	0.2%	0.0%	0.0%	0.3%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Monday, September 19, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	29	9	0	1	0	0	0	1	0	0	0	0	41
1:00 AM	0	13	3	0	0	0	0	0	0	0	0	0	0	16
2:00 AM	0	17	2	0	0	0	0	0	0	1	0	0	0	20
3:00 AM	0	15	3	0	3	0	0	0	0	0	0	0	0	21
4:00 AM	0	38	7	0	7	0	0	0	0	0	0	0	0	52
5:00 AM	1	85	13	0	25	0	0	0	1	0	0	0	0	125
6:00 AM	0	151	34	0	21	1	0	0	0	1	0	0	0	208
7:00 AM	1	289	69	0	19	0	0	0	1	0	0	0	0	379
8:00 AM	1	309	73	0	31	6	0	0	0	1	0	0	0	421
9:00 AM	1	329	61	0	29	6	0	0	1	1	0	0	0	428
10:00 AM	0	341	71	0	45	1	0	2	2	2	0	0	1	465
11:00 AM	2	307	88	0	43	5	0	0	1	0	0	0	4	450
12:00 PM	2	347	88	0	52	5	0	1	1	1	0	1	1	499
1:00 PM	1	381	75	3	64	1	0	1	0	0	0	0	0	526
2:00 PM	3	611	123	0	65	2	0	1	2	2	0	0	1	810
3:00 PM	4	609	109	0	70	1	0	1	2	0	0	0	2	798
4:00 PM	2	475	94	1	53	0	0	1	1	1	0	0	0	628
5:00 PM	4	532	88	0	81	1	0	1	1	0	0	0	0	708
6:00 PM	1	435	82	0	44	1	0	2	2	0	0	0	1	568
7:00 PM	2	283	42	0	21	0	0	0	0	0	0	0	0	348
8:00 PM	1	196	25	1	9	0	0	2	0	0	0	0	0	234
9:00 PM	0	117	20	0	5	1	0	0	2	2	0	0	0	147
10:00 PM	0	77	8	0	4	0	0	0	0	0	0	0	0	89
11:00 PM	0	48	8	0	2	0	0	0	1	0	0	0	0	59
Total	27	6,034	1,195	5	694	31	0	12	19	12	0	1	10	8,040
Percent	0.3%	75.0%	14.9%	0.1%	8.6%	0.4%	0.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.1%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Tuesday, September 20, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	16	9	0	5	0	0	0	0	0	0	0	0	30
1:00 AM	0	10	3	1	6	0	0	0	0	0	0	0	0	20
2:00 AM	0	11	3	1	3	0	0	0	0	0	0	0	0	18
3:00 AM	0	26	22	3	9	0	0	0	0	0	0	0	0	60
4:00 AM	1	67	104	7	44	0	0	1	1	0	0	0	0	225
5:00 AM	0	138	280	2	123	1	0	5	1	2	0	0	1	553
6:00 AM	5	280	285	2	146	9	0	1	3	2	0	1	2	736
7:00 AM	1	391	310	3	128	5	0	0	1	5	0	0	3	847
8:00 AM	7	364	242	3	96	4	0	4	5	8	1	2	6	742
9:00 AM	1	210	182	4	81	0	0	3	3	2	0	0	3	489
10:00 AM	1	260	75	0	53	7	0	1	3	0	0	0	4	404
11:00 AM	3	252	84	1	46	4	0	1	4	0	0	0	3	398
12:00 PM	2	261	72	1	45	1	0	0	1	1	1	0	3	388
1:00 PM	4	258	78	1	42	1	0	1	1	2	0	0	3	391
2:00 PM	2	289	90	0	31	1	0	0	3	1	0	0	2	419
3:00 PM	3	364	79	1	39	2	0	1	0	0	0	0	4	493
4:00 PM	0	344	63	0	45	2	0	0	0	0	0	0	0	454
5:00 PM	0	302	88	0	33	0	0	1	1	0	0	0	1	426
6:00 PM	0	290	54	0	34	1	0	1	0	0	0	0	0	380
7:00 PM	2	167	66	0	36	0	0	1	0	0	0	0	0	272
8:00 PM	0	150	60	0	24	0	0	0	1	0	0	0	1	236
9:00 PM	4	115	43	0	10	1	0	0	0	0	0	0	0	173
10:00 PM	2	57	13	0	5	0	0	0	0	0	0	0	0	77
11:00 PM	0	35	19	0	3	0	0	0	1	0	0	0	0	58
Total	38	4,657	2,324	30	1,087	39	0	21	29	23	2	3	36	8,289
Percent	0.5%	56.2%	28.0%	0.4%	13.1%	0.5%	0.0%	0.3%	0.3%	0.3%	0.0%	0.0%	0.4%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Tuesday, September 20, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	28	4	0	4	0	0	0	1	0	0	0	0	37
1:00 AM	0	18	3	0	4	0	0	0	0	0	0	0	0	25
2:00 AM	0	14	2	0	0	0	0	0	0	0	0	0	0	16
3:00 AM	0	17	2	0	5	0	0	0	2	0	0	0	0	26
4:00 AM	1	47	9	0	8	0	0	0	2	0	0	0	0	67
5:00 AM	2	75	22	1	15	0	0	0	0	0	0	0	0	115
6:00 AM	3	192	41	0	23	1	0	1	0	0	0	0	1	262
7:00 AM	1	385	79	0	32	0	0	1	3	0	0	0	1	502
8:00 AM	1	286	74	0	33	3	0	0	2	1	0	0	2	402
9:00 AM	1	271	61	2	32	2	0	0	2	0	0	0	3	374
10:00 AM	1	243	63	2	36	4	0	0	2	1	0	0	4	356
11:00 AM	2	320	68	0	34	1	0	0	0	0	0	0	2	427
12:00 PM	6	312	85	2	45	1	0	0	2	0	0	0	2	455
1:00 PM	2	362	89	1	44	1	0	1	2	0	0	0	4	506
2:00 PM	3	526	112	1	82	4	0	1	1	0	0	0	0	730
3:00 PM	7	516	138	2	77	5	0	1	2	0	0	0	0	748
4:00 PM	1	444	87	2	64	0	0	1	1	0	0	0	1	601
5:00 PM	5	480	87	0	75	0	0	2	0	0	0	0	0	649
6:00 PM	3	417	72	0	44	0	0	0	0	0	0	0	1	537
7:00 PM	2	275	49	0	25	0	0	0	0	0	0	0	0	351
8:00 PM	2	209	39	0	14	0	0	0	0	0	0	0	0	264
9:00 PM	0	139	21	1	6	0	0	0	1	0	0	0	0	168
10:00 PM	0	71	7	0	2	0	0	0	0	0	0	0	0	80
11:00 PM	1	57	8	0	2	0	0	0	2	0	0	0	0	70
Total	44	5,704	1,222	14	706	22	0	8	25	2	0	0	21	7,768
Percent	0.6%	73.4%	15.7%	0.2%	9.1%	0.3%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.3%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Wednesday, September 21, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	26	10	0	2	0	0	0	0	0	0	0	0	38
1:00 AM	0	17	5	0	5	0	0	0	0	0	0	0	0	27
2:00 AM	0	9	8	0	3	0	0	0	0	0	0	0	0	20
3:00 AM	1	41	14	0	5	0	0	1	0	0	0	0	0	62
4:00 AM	0	57	117	0	47	0	0	2	0	1	0	0	1	225
5:00 AM	2	137	254	2	146	2	0	1	4	2	0	0	1	551
6:00 AM	2	237	296	7	165	4	0	2	2	3	1	0	1	720
7:00 AM	5	196	378	0	165	4	0	8	4	5	1	0	3	769
8:00 AM	0	189	317	1	108	1	0	6	5	3	1	0	7	638
9:00 AM	4	156	195	1	86	1	0	1	2	2	0	0	5	453
10:00 AM	0	170	107	1	52	0	0	2	2	2	1	0	1	338
11:00 AM	1	253	78	1	37	2	0	0	1	1	0	0	2	376
12:00 PM	2	268	73	0	40	1	0	1	0	3	0	0	0	388
1:00 PM	1	293	63	0	50	0	0	0	0	0	1	0	3	411
2:00 PM	4	307	81	0	27	2	0	0	2	0	0	0	1	424
3:00 PM	3	368	83	0	40	0	0	1	1	1	0	0	3	500
4:00 PM	5	353	74	0	47	1	0	1	0	0	0	0	2	483
5:00 PM	2	319	64	0	32	1	0	0	1	1	0	0	0	420
6:00 PM	1	263	63	0	32	1	0	0	0	0	0	0	3	363
7:00 PM	2	250	74	0	39	0	0	0	1	1	0	0	0	367
8:00 PM	4	218	80	0	34	1	0	0	1	1	0	0	0	339
9:00 PM	0	188	73	0	24	0	0	0	0	0	0	0	0	285
10:00 PM	2	294	153	0	17	1	0	0	0	0	0	0	0	467
11:00 PM	0	66	22	1	5	0	0	0	0	0	0	0	0	94
Total	41	4,675	2,682	14	1,208	22	0	26	26	26	5	0	33	8,758
Percent	0.5%	53.4%	30.6%	0.2%	13.8%	0.3%	0.0%	0.3%	0.3%	0.3%	0.1%	0.0%	0.4%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Wednesday, September 21, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	32	7	0	0	0	0	0	0	0	0	0	0	39
1:00 AM	0	19	1	0	3	0	0	0	0	0	0	0	0	23
2:00 AM	0	26	2	0	0	0	0	0	0	0	0	0	0	28
3:00 AM	1	23	1	0	5	0	0	0	2	0	0	0	0	32
4:00 AM	1	44	7	0	5	0	0	0	3	0	0	0	1	61
5:00 AM	1	88	19	0	12	0	0	0	1	0	0	0	0	121
6:00 AM	2	214	40	0	20	0	0	0	0	0	0	0	1	277
7:00 AM	0	350	83	0	26	2	0	1	2	1	0	0	4	469
8:00 AM	0	304	61	0	32	1	0	0	3	1	0	0	2	404
9:00 AM	3	315	68	0	33	3	0	0	3	1	0	0	2	428
10:00 AM	1	339	52	1	23	4	0	0	2	1	0	0	2	425
11:00 AM	2	346	65	1	30	4	0	1	3	1	0	0	1	454
12:00 PM	1	367	81	0	41	0	0	0	2	0	0	0	3	495
1:00 PM	2	396	81	2	51	1	0	1	5	2	0	0	2	543
2:00 PM	4	612	138	2	82	5	0	2	0	0	0	0	1	846
3:00 PM	3	580	106	0	78	2	0	2	0	0	0	0	0	771
4:00 PM	1	545	95	1	61	1	0	1	1	0	0	0	0	706
5:00 PM	3	442	97	1	52	0	0	0	0	1	0	0	1	597
6:00 PM	2	491	94	0	50	1	0	0	2	1	0	0	1	642
7:00 PM	6	367	66	0	28	1	0	0	1	0	0	0	0	469
8:00 PM	2	204	42	0	16	0	0	0	0	0	0	0	0	264
9:00 PM	2	168	24	0	10	2	0	0	1	0	0	0	1	208
10:00 PM	0	105	8	0	4	0	0	0	0	0	0	0	0	117
11:00 PM	0	54	10	0	1	0	0	0	1	0	0	0	0	66
Total	37	6,431	1,248	8	663	27	0	8	32	9	0	0	22	8,485
Percent	0.4%	75.8%	14.7%	0.1%	7.8%	0.3%	0.0%	0.1%	0.4%	0.1%	0.0%	0.0%	0.3%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Thursday, September 22, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	29	9	0	3	0	0	0	0	0	0	0	0	42
1:00 AM	0	17	1	1	3	0	0	0	1	0	0	0	0	23
2:00 AM	2	13	6	0	4	0	0	0	0	0	0	0	0	25
3:00 AM	0	40	12	0	10	0	0	0	1	0	0	0	0	63
4:00 AM	1	88	87	0	51	0	0	1	1	0	0	0	0	229
5:00 AM	1	168	222	0	141	1	0	1	3	1	0	0	0	538
6:00 AM	5	322	235	5	131	2	0	1	4	5	0	0	1	711
7:00 AM	3	352	237	8	111	1	0	1	4	4	0	0	2	723
8:00 AM	3	332	166	2	105	1	0	1	1	4	0	0	3	618
9:00 AM	2	250	118	4	65	3	0	2	3	2	0	0	4	453
10:00 AM	3	222	78	2	56	5	0	0	4	1	0	1	2	374
11:00 AM	0	263	78	0	41	3	0	2	6	0	0	1	1	395
12:00 PM	0	247	55	1	35	1	0	1	1	0	0	0	2	343
1:00 PM	0	271	58	0	40	1	0	0	0	0	1	1	1	373
2:00 PM	1	334	97	0	32	3	0	1	2	3	0	0	1	474
3:00 PM	3	413	97	0	42	2	0	0	0	4	0	1	1	563
4:00 PM	2	387	85	0	45	1	0	0	1	2	0	0	2	525
5:00 PM	6	373	84	0	38	0	0	0	1	0	0	0	0	502
6:00 PM	0	253	63	0	19	2	0	0	1	4	0	0	0	342
7:00 PM	2	205	67	0	35	0	0	2	1	0	0	0	0	312
8:00 PM	0	225	74	0	34	1	0	0	0	0	0	0	1	335
9:00 PM	0	222	65	0	25	1	0	0	0	0	0	0	0	313
10:00 PM	1	191	67	1	13	0	0	0	1	0	0	0	0	274
11:00 PM	1	58	21	1	7	0	0	0	0	0	0	0	0	88
Total	37	5,275	2,082	25	1,086	28	0	13	36	30	1	4	21	8,638
Percent	0.4%	61.1%	24.1%	0.3%	12.6%	0.3%	0.0%	0.2%	0.4%	0.3%	0.0%	0.0%	0.2%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Thursday, September 22, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	2	40	7	0	5	0	0	0	1	0	0	0	0	55
1:00 AM	0	15	4	0	3	0	0	0	1	1	0	0	0	24
2:00 AM	0	14	2	0	3	0	0	0	1	0	0	0	0	20
3:00 AM	0	17	3	0	2	0	0	0	1	0	0	0	0	23
4:00 AM	1	44	6	0	8	0	0	0	0	0	0	0	0	59
5:00 AM	1	78	15	1	19	0	0	0	4	0	0	0	0	118
6:00 AM	1	190	39	0	21	0	0	0	0	1	0	0	1	253
7:00 AM	1	367	83	0	34	1	0	0	3	2	0	0	1	492
8:00 AM	0	274	75	0	31	6	0	0	0	1	0	0	1	388
9:00 AM	3	285	75	1	35	4	0	0	2	1	0	0	0	406
10:00 AM	2	317	74	1	45	2	0	0	2	1	0	0	3	447
11:00 AM	2	297	59	0	42	7	0	0	3	0	0	0	0	410
12:00 PM	1	356	65	0	52	2	0	0	4	0	0	0	3	483
1:00 PM	6	402	93	1	48	2	0	1	0	2	0	0	2	557
2:00 PM	6	575	121	0	76	4	0	2	2	2	0	0	0	788
3:00 PM	3	589	143	0	65	5	0	1	4	0	0	0	0	810
4:00 PM	0	445	93	1	54	0	0	0	2	0	0	0	0	595
5:00 PM	3	479	83	0	54	1	0	1	0	0	0	0	0	621
6:00 PM	2	511	106	0	47	0	0	0	1	0	0	0	0	667
7:00 PM	1	353	57	0	30	1	0	0	0	0	0	0	0	442
8:00 PM	2	205	40	0	8	1	0	0	1	0	0	0	0	257
9:00 PM	1	165	22	0	12	0	0	0	0	0	0	0	2	202
10:00 PM	2	95	8	0	1	0	0	0	1	0	0	0	0	107
11:00 PM	0	60	8	0	2	0	0	0	1	1	0	0	0	72
Total	40	6,173	1,281	5	697	36	0	5	34	12	0	0	13	8,296
Percent	0.5%	74.4%	15.4%	0.1%	8.4%	0.4%	0.0%	0.1%	0.4%	0.1%	0.0%	0.0%	0.2%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Friday, September 23, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	31	14	0	3	0	0	0	0	0	0	0	0	49
1:00 AM	1	17	6	0	0	0	0	0	1	0	0	0	0	25
2:00 AM	0	21	4	0	4	0	0	0	0	0	0	0	0	29
3:00 AM	0	39	11	0	12	0	0	0	0	0	0	0	0	62
4:00 AM	3	84	65	4	45	0	0	1	1	0	0	0	0	203
5:00 AM	1	181	155	4	107	0	0	2	2	0	0	0	0	452
6:00 AM	4	297	162	3	100	3	0	3	5	5	0	0	4	586
7:00 AM	5	363	157	3	73	3	0	0	0	5	0	0	5	614
8:00 AM	1	314	123	0	87	2	0	0	1	3	0	0	4	535
9:00 AM	3	236	121	1	70	4	0	0	1	0	0	0	1	437
10:00 AM	2	211	77	1	49	2	0	0	4	0	0	0	4	350
11:00 AM	0	297	65	1	55	3	0	1	4	0	0	0	8	434
12:00 PM	1	278	82	0	54	2	0	0	3	3	0	0	4	427
1:00 PM	4	305	72	0	41	4	0	1	4	4	1	0	4	440
2:00 PM	1	317	74	0	49	0	0	0	1	2	0	0	4	448
3:00 PM	4	405	76	0	36	2	0	0	0	0	0	1	0	524
4:00 PM	2	348	64	0	30	0	0	1	1	1	0	0	1	448
5:00 PM	2	299	63	0	27	0	0	1	0	1	0	0	1	394
6:00 PM	2	265	72	0	35	0	0	0	0	1	0	0	0	375
7:00 PM	0	214	69	0	29	0	0	2	1	0	0	0	0	315
8:00 PM	2	230	77	0	29	0	0	0	0	0	0	0	0	338
9:00 PM	0	278	91	0	27	0	0	0	1	1	0	0	0	398
10:00 PM	1	275	111	0	24	0	0	0	0	0	0	0	0	411
11:00 PM	0	201	80	0	18	1	0	0	0	0	0	0	0	300
Total	40	5,506	1,891	17	1,004	26	0	12	30	26	1	1	40	8,594
Percent	0.5%	64.1%	22.0%	0.2%	11.7%	0.3%	0.0%	0.1%	0.3%	0.3%	0.0%	0.0%	0.5%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Friday, September 23, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	34	6	0	2	0	0	0	0	0	0	0	0	42
1:00 AM	0	25	5	0	1	0	0	0	0	0	0	0	0	31
2:00 AM	0	22	4	0	1	0	0	0	2	0	0	0	0	29
3:00 AM	1	19	4	0	3	0	0	0	0	0	0	0	0	27
4:00 AM	0	38	6	0	7	0	0	0	1	0	0	0	0	52
5:00 AM	0	72	16	0	10	0	0	0	1	0	0	0	0	99
6:00 AM	3	186	35	1	16	0	0	0	0	1	0	0	3	245
7:00 AM	0	313	89	0	30	2	0	0	1	0	0	0	5	440
8:00 AM	2	275	55	5	28	5	0	0	3	0	0	0	1	374
9:00 AM	1	308	77	0	38	6	0	0	4	1	0	0	2	437
10:00 AM	2	361	62	4	47	5	0	0	2	2	0	0	1	486
11:00 AM	0	309	85	1	60	3	0	0	4	0	0	0	2	464
12:00 PM	1	378	84	5	48	2	0	0	2	0	0	0	4	524
1:00 PM	1	465	114	3	66	5	0	1	0	2	0	0	2	659
2:00 PM	5	591	110	3	84	11	0	1	2	1	0	0	1	809
3:00 PM	4	557	117	1	72	2	0	0	0	0	0	0	0	753
4:00 PM	5	490	79	1	44	3	0	0	0	2	0	0	1	625
5:00 PM	2	526	96	1	68	0	0	0	1	0	0	0	0	694
6:00 PM	0	454	69	0	36	0	0	0	2	0	0	0	0	561
7:00 PM	2	398	74	0	28	1	0	0	1	0	0	0	0	504
8:00 PM	0	213	32	1	12	0	0	0	0	0	0	0	0	258
9:00 PM	2	199	31	0	12	0	0	0	1	0	0	0	0	245
10:00 PM	0	136	19	0	7	0	0	1	0	1	0	0	0	164
11:00 PM	0	104	13	0	3	0	0	0	0	0	0	0	0	120
Total	31	6,473	1,282	26	723	45	0	3	27	10	0	0	22	8,642
Percent	0.4%	74.9%	14.8%	0.3%	8.4%	0.5%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.3%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Saturday, September 24, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	42	39	0	4	0	0	0	1	0	0	0	0	87
1:00 AM	0	26	9	0	5	0	0	0	0	0	0	0	0	40
2:00 AM	0	16	7	0	3	2	0	0	1	0	0	0	0	29
3:00 AM	0	26	11	0	4	0	0	0	0	0	0	0	0	41
4:00 AM	0	21	11	0	7	1	0	1	1	0	0	0	0	42
5:00 AM	0	45	15	0	12	0	0	0	2	0	0	0	0	74
6:00 AM	0	59	41	0	23	1	0	0	2	2	0	0	0	128
7:00 AM	0	60	57	0	28	1	0	0	3	0	0	0	0	149
8:00 AM	0	132	83	0	41	0	0	0	0	0	0	0	0	256
9:00 AM	4	185	101	0	43	1	0	0	0	1	0	0	2	337
10:00 AM	1	233	82	0	32	1	0	0	0	2	0	0	0	351
11:00 AM	1	275	82	0	48	0	0	0	1	0	0	0	4	411
12:00 PM	1	328	71	0	35	1	0	1	2	0	0	0	1	440
1:00 PM	4	328	70	0	26	3	0	0	0	0	1	0	1	433
2:00 PM	5	391	72	0	36	0	0	0	0	0	0	0	0	504
3:00 PM	2	373	64	0	22	1	0	0	0	1	1	0	1	465
4:00 PM	4	357	59	0	28	2	0	0	0	1	0	0	2	453
5:00 PM	1	377	92	0	33	1	0	1	2	1	0	0	2	510
6:00 PM	2	325	98	0	21	1	0	1	0	2	0	0	1	451
7:00 PM	2	331	88	0	31	0	0	1	1	1	1	0	0	456
8:00 PM	0	316	86	0	22	2	0	0	0	0	0	0	0	426
9:00 PM	3	353	107	0	25	0	0	0	1	1	0	0	1	491
10:00 PM	1	364	104	0	21	0	0	1	0	1	0	0	0	492
11:00 PM	2	199	57	0	10	0	0	0	0	0	0	0	0	268
Total	34	5,162	1,506	0	560	18	0	6	17	13	3	0	15	7,334
Percent	0.5%	70.4%	20.5%	0.0%	7.6%	0.2%	0.0%	0.1%	0.2%	0.2%	0.0%	0.0%	0.2%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Saturday, September 24, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	62	6	0	3	0	0	0	0	0	0	0	0	71
1:00 AM	0	41	7	0	1	0	0	0	1	0	0	0	0	50
2:00 AM	0	42	5	0	0	0	0	0	2	0	0	0	0	49
3:00 AM	0	17	4	0	3	0	0	0	1	0	0	0	0	25
4:00 AM	0	26	3	0	4	0	0	0	1	0	0	0	0	34
5:00 AM	0	40	5	0	7	0	0	0	0	0	0	0	0	52
6:00 AM	0	66	17	0	7	0	0	0	2	0	0	0	0	92
7:00 AM	0	157	25	0	13	0	0	0	0	0	0	0	0	195
8:00 AM	0	235	55	0	25	0	0	0	1	0	0	0	0	316
9:00 AM	2	339	62	0	22	0	0	0	1	0	0	0	0	426
10:00 AM	3	445	77	0	18	1	0	0	1	0	0	0	0	545
11:00 AM	2	499	76	0	43	0	0	0	0	0	0	0	0	620
12:00 PM	3	502	110	0	53	0	0	1	0	0	0	0	0	669
1:00 PM	2	516	94	0	37	0	0	0	1	0	0	0	1	651
2:00 PM	4	502	102	1	29	0	0	0	0	1	0	0	0	639
3:00 PM	4	546	85	0	42	1	0	0	0	0	0	0	0	678
4:00 PM	3	460	77	0	29	0	0	0	0	0	0	0	0	569
5:00 PM	3	470	55	0	34	0	0	0	0	0	0	0	0	562
6:00 PM	0	346	73	0	23	0	0	0	0	0	0	0	0	442
7:00 PM	2	260	40	0	12	0	0	1	0	0	0	0	0	315
8:00 PM	2	215	40	0	14	0	0	0	0	0	0	0	0	271
9:00 PM	0	170	25	0	14	0	0	0	0	0	0	0	0	209
10:00 PM	2	136	23	0	8	0	0	0	1	0	0	0	0	170
11:00 PM	0	117	16	0	7	0	0	0	0	0	0	0	0	140
Total	32	6,209	1,082	1	448	2	0	2	12	1	0	0	1	7,790
Percent	0.4%	79.7%	13.9%	0.0%	5.8%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Sunday, September 25, 2022
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	54	29	0	5	0	0	0	0	0	0	0	0	89
1:00 AM	0	30	16	0	5	0	0	0	0	0	0	0	0	51
2:00 AM	0	24	7	0	4	0	0	0	0	0	0	0	0	35
3:00 AM	0	17	12	0	5	0	0	0	0	0	0	0	0	34
4:00 AM	0	33	10	0	7	0	0	0	0	0	0	0	0	50
5:00 AM	0	29	18	0	3	0	0	0	0	0	0	0	0	50
6:00 AM	0	35	21	0	8	0	0	0	0	0	0	0	0	64
7:00 AM	2	60	40	0	15	0	0	0	0	0	0	0	0	117
8:00 AM	1	126	54	0	27	0	0	0	0	0	0	0	0	208
9:00 AM	2	134	109	0	34	0	0	0	0	0	0	0	0	279
10:00 AM	0	165	83	0	48	0	0	0	0	0	0	0	0	296
11:00 AM	1	245	75	0	33	1	0	1	1	0	0	0	0	357
12:00 PM	1	267	72	0	24	0	0	0	0	0	0	1	2	367
1:00 PM	2	322	69	0	31	1	0	0	0	0	0	0	0	425
2:00 PM	3	288	56	0	23	0	0	1	0	0	0	0	0	371
3:00 PM	5	329	59	0	27	0	0	0	0	0	0	0	0	420
4:00 PM	1	336	60	0	29	1	0	0	0	1	0	0	0	428
5:00 PM	2	324	70	0	28	0	0	1	0	0	0	0	0	425
6:00 PM	3	326	73	0	18	2	0	0	1	0	0	0	0	423
7:00 PM	0	270	82	0	33	0	0	0	1	0	0	0	0	386
8:00 PM	0	280	69	0	26	1	0	0	1	0	0	0	0	377
9:00 PM	1	332	67	0	13	0	0	1	1	1	0	0	0	416
10:00 PM	0	299	80	0	23	0	0	0	0	0	0	0	0	402
11:00 PM	0	86	34	0	10	0	0	0	4	0	0	0	0	134
Total	25	4,411	1,265	0	479	6	0	4	9	2	0	1	2	6,204
Percent	0.4%	71.1%	20.4%	0.0%	7.7%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Sunday, September 25, 2022
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	87	10	0	3	0	0	0	0	0	0	0	0	101
1:00 AM	0	35	5	0	1	0	0	0	0	0	0	0	0	41
2:00 AM	0	41	1	0	2	0	0	0	0	0	0	0	0	44
3:00 AM	0	19	3	0	5	0	0	0	0	0	0	0	0	27
4:00 AM	0	19	3	0	2	0	0	0	0	0	0	0	0	24
5:00 AM	0	30	11	0	2	0	0	0	0	0	0	0	0	43
6:00 AM	0	43	16	0	5	0	0	0	0	0	0	0	0	64
7:00 AM	0	104	17	0	6	0	0	0	0	0	0	0	0	127
8:00 AM	0	151	35	0	10	1	0	0	0	0	0	0	0	197
9:00 AM	1	297	42	0	16	0	0	0	0	0	0	0	0	356
10:00 AM	1	345	67	0	19	0	0	0	0	0	0	0	0	432
11:00 AM	1	398	77	0	31	0	0	0	0	0	0	0	0	507
12:00 PM	0	462	89	0	31	2	0	0	0	0	0	0	0	584
1:00 PM	1	467	87	1	37	1	0	0	0	2	0	0	0	596
2:00 PM	1	493	91	0	35	0	0	0	1	0	0	0	0	621
3:00 PM	2	397	88	0	35	2	0	0	0	0	0	0	0	524
4:00 PM	5	402	65	0	51	0	0	0	0	0	0	0	0	523
5:00 PM	3	369	57	0	33	0	0	0	0	0	0	0	0	462
6:00 PM	6	355	50	0	25	0	0	0	1	0	0	0	0	437
7:00 PM	6	207	37	0	16	0	0	0	0	0	0	0	0	266
8:00 PM	0	184	20	0	7	1	0	0	1	0	0	0	0	213
9:00 PM	1	159	16	0	4	0	0	0	2	0	0	0	0	182
10:00 PM	0	90	6	0	2	0	0	0	0	0	0	0	0	98
11:00 PM	0	58	8	0	4	0	0	0	1	0	0	0	0	71
Total	29	5,212	901	1	382	7	0	0	6	2	0	0	0	6,540
Percent	0.4%	79.7%	13.8%	0.0%	5.8%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Total Study Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	31	16	0	3	0	0	0	0	0	0	0	0	51
1:00 AM	0	18	6	0	4	0	0	0	0	0	0	0	0	28
2:00 AM	0	15	6	0	3	0	0	0	0	0	0	0	0	24
3:00 AM	0	33	14	0	8	0	0	0	0	0	0	0	0	55
4:00 AM	1	59	69	2	34	0	0	1	1	0	0	0	0	167
5:00 AM	1	118	171	1	96	1	0	1	2	1	0	0	0	392
6:00 AM	2	209	189	3	100	3	0	2	3	3	0	0	1	515
7:00 AM	2	243	206	2	91	2	0	2	2	3	0	0	2	555
8:00 AM	2	246	166	1	78	1	0	2	2	3	0	0	3	504
9:00 AM	2	200	138	2	63	1	0	1	2	1	0	0	2	412
10:00 AM	1	208	88	1	50	2	0	0	2	1	0	0	2	355
11:00 AM	1	262	76	0	44	2	0	1	3	0	0	0	3	392
12:00 PM	1	271	71	0	38	1	0	0	1	1	0	0	3	387
1:00 PM	3	294	69	0	39	2	0	0	1	1	1	0	2	412
2:00 PM	3	319	76	0	33	1	0	0	1	1	0	0	1	435
3:00 PM	3	377	75	0	35	1	0	0	0	1	0	0	2	494
4:00 PM	2	350	69	0	38	1	0	1	1	1	0	0	1	464
5:00 PM	2	327	77	0	31	0	0	1	1	0	0	0	1	440
6:00 PM	1	284	68	0	25	1	0	0	0	1	0	0	1	381
7:00 PM	1	233	72	0	33	0	0	1	1	0	0	0	0	341
8:00 PM	1	230	73	0	29	1	0	0	0	0	0	0	0	334
9:00 PM	1	236	73	0	20	0	0	0	1	0	0	0	0	331
10:00 PM	1	229	88	0	18	0	0	0	0	0	0	0	0	336
11:00 PM	1	98	38	0	8	0	0	0	1	0	0	0	0	146
Total	33	4,890	1,994	12	921	20	0	13	25	18	1	0	24	7,951
Percent	0.4%	61.5%	25.1%	0.2%	11.6%	0.3%	0.0%	0.2%	0.3%	0.2%	0.0%	0.0%	0.3%	

Note: Average only considered on days with 24-hours of data.

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

Total Study Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	45	7	0	3	0	0	0	0	0	0	0	0	56
1:00 AM	0	24	4	0	2	0	0	0	0	0	0	0	0	30
2:00 AM	0	25	3	0	1	0	0	0	1	0	0	0	0	30
3:00 AM	0	18	3	0	4	0	0	0	1	0	0	0	0	26
4:00 AM	0	37	6	0	6	0	0	0	1	0	0	0	0	50
5:00 AM	1	67	14	0	13	0	0	0	1	0	0	0	0	96
6:00 AM	1	149	32	0	16	0	0	0	0	0	0	0	1	199
7:00 AM	0	281	64	0	23	1	0	0	1	0	0	0	2	372
8:00 AM	1	262	61	1	27	3	0	0	1	1	0	0	1	358
9:00 AM	2	306	64	0	29	3	0	0	2	1	0	0	1	408
10:00 AM	1	342	67	1	33	2	0	0	2	1	0	0	2	451
11:00 AM	2	354	74	0	40	3	0	0	2	0	0	0	1	476
12:00 PM	2	389	86	1	46	2	0	0	2	0	0	0	2	530
1:00 PM	2	427	90	2	50	2	0	1	1	1	0	0	2	578
2:00 PM	4	559	114	1	65	4	0	1	1	1	0	0	0	750
3:00 PM	4	542	112	0	63	3	0	1	1	0	0	0	0	726
4:00 PM	2	466	84	1	51	1	0	0	1	0	0	0	0	606
5:00 PM	3	471	80	0	57	0	0	1	0	0	0	0	0	612
6:00 PM	2	430	78	0	38	0	0	0	1	0	0	0	0	549
7:00 PM	3	306	52	0	23	0	0	0	0	0	0	0	0	384
8:00 PM	1	204	34	0	11	0	0	0	0	0	0	0	0	250
9:00 PM	1	160	23	0	9	0	0	0	1	0	0	0	0	194
10:00 PM	1	101	11	0	4	0	0	0	0	0	0	0	0	117
11:00 PM	0	71	10	0	3	0	0	0	1	0	0	0	0	85
Total	34	6,036	1,173	7	617	24	0	4	21	5	0	0	12	7,933
Percent	0.4%	76.1%	14.8%	0.1%	7.8%	0.3%	0.0%	0.1%	0.3%	0.1%	0.0%	0.0%	0.2%	

Note: Average only considered on days with 24-hours of data.

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

3-Day (Tuesday - Thursday) Average
Northbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	0	24	9	0	3	0	0	0	0	0	0	0	0	36
1:00 AM	0	15	3	1	5	0	0	0	0	0	0	0	0	24
2:00 AM	1	11	6	0	3	0	0	0	0	0	0	0	0	21
3:00 AM	0	36	16	1	8	0	0	0	0	0	0	0	0	61
4:00 AM	1	71	103	2	47	0	0	1	1	0	0	0	0	226
5:00 AM	1	148	252	1	137	1	0	2	3	2	0	0	1	548
6:00 AM	4	280	272	5	147	5	0	1	3	3	0	0	1	721
7:00 AM	3	313	308	4	135	3	0	3	3	5	0	0	3	780
8:00 AM	3	295	242	2	103	2	0	4	4	5	1	1	5	667
9:00 AM	2	205	165	3	77	1	0	2	3	2	0	0	4	464
10:00 AM	1	217	87	1	54	4	0	1	3	1	0	0	2	371
11:00 AM	1	256	80	1	41	3	0	1	4	0	0	0	2	389
12:00 PM	1	259	67	1	40	1	0	1	1	1	0	0	2	374
1:00 PM	2	274	66	0	44	1	0	0	0	1	1	0	2	391
2:00 PM	2	310	89	0	30	2	0	0	2	1	0	0	1	437
3:00 PM	3	382	86	0	40	1	0	1	0	2	0	0	3	518
4:00 PM	2	361	74	0	46	1	0	0	0	1	0	0	1	486
5:00 PM	3	331	79	0	34	0	0	0	1	0	0	0	0	448
6:00 PM	0	269	60	0	28	1	0	0	0	1	0	0	1	360
7:00 PM	2	207	69	0	37	0	0	1	1	0	0	0	0	317
8:00 PM	1	198	71	0	31	1	0	0	1	0	0	0	1	304
9:00 PM	1	175	60	0	20	1	0	0	0	0	0	0	0	257
10:00 PM	2	181	78	0	12	0	0	0	0	0	0	0	0	273
11:00 PM	0	53	21	1	5	0	0	0	0	0	0	0	0	80
Total	36	4,871	2,363	23	1,127	28	0	18	30	25	2	1	29	8,553
Percent	0.4%	57.0%	27.6%	0.3%	13.2%	0.3%	0.0%	0.2%	0.4%	0.3%	0.0%	0.0%	0.3%	

Location: Meridian Ave E S-O 36th St E
Date Range: 9/19/2022 to 9/25/2022
Site Code: 01

3-Day (Tuesday - Thursday) Average
Southbound

Time	FHWA Vehicle Classification													Total Volume
	1	2	3	4	5	6	7	8	9	10	11	12	13	
12:00 AM	1	33	6	0	3	0	0	0	1	0	0	0	0	44
1:00 AM	0	17	3	0	3	0	0	0	0	0	0	0	0	23
2:00 AM	0	18	2	0	1	0	0	0	0	0	0	0	0	21
3:00 AM	0	19	2	0	4	0	0	0	2	0	0	0	0	27
4:00 AM	1	45	7	0	7	0	0	0	2	0	0	0	0	62
5:00 AM	1	80	19	1	15	0	0	0	2	0	0	0	0	118
6:00 AM	2	199	40	0	21	0	0	0	0	0	0	0	1	263
7:00 AM	1	367	82	0	31	1	0	1	3	1	0	0	2	489
8:00 AM	0	288	70	0	32	3	0	0	2	1	0	0	2	398
9:00 AM	2	290	68	1	33	3	0	0	2	1	0	0	2	402
10:00 AM	1	300	63	1	35	3	0	0	2	1	0	0	3	409
11:00 AM	2	321	64	0	35	4	0	0	2	0	0	0	1	429
12:00 PM	3	345	77	1	46	1	0	0	3	0	0	0	3	479
1:00 PM	3	387	88	1	48	1	0	1	2	1	0	0	3	535
2:00 PM	4	571	124	1	80	4	0	2	1	1	0	0	0	788
3:00 PM	4	562	129	1	73	4	0	1	2	0	0	0	0	776
4:00 PM	1	478	92	1	60	0	0	1	1	0	0	0	0	634
5:00 PM	4	467	89	0	60	0	0	1	0	0	0	0	0	621
6:00 PM	2	473	91	0	47	0	0	0	1	0	0	0	1	615
7:00 PM	3	332	57	0	28	1	0	0	0	0	0	0	0	421
8:00 PM	2	206	40	0	13	0	0	0	0	0	0	0	0	261
9:00 PM	1	157	22	0	9	1	0	0	1	0	0	0	1	192
10:00 PM	1	90	8	0	2	0	0	0	0	0	0	0	0	101
11:00 PM	0	57	9	0	2	0	0	0	1	0	0	0	0	69
Total	39	6,102	1,252	8	688	26	0	7	30	6	0	0	19	8,177
Percent	0.5%	74.6%	15.3%	0.1%	8.4%	0.3%	0.0%	0.1%	0.4%	0.1%	0.0%	0.0%	0.2%	

Appendix D: Level of Service (LOS) Definitions

Highway Capacity Manual 2010/6th Edition

Signalized intersection level of service (LOS) is defined in terms of a weighted average control delay for the entire intersection. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control as well as provides a surrogate measure for driver discomfort and fuel consumption. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday PM peak hour). Control delay is a complex measure based on many variables, including signal phasing and coordination (i.e., progression of movements through the intersection and along the corridor), signal cycle length, and traffic volumes with respect to intersection capacity and resulting queues. Table 1 summarizes the LOS criteria for signalized intersections, as described in the *Highway Capacity Manual 2010* and 6th Edition (Transportation Research Board, 2010 and 2016, respectively).

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)	General Description
A	≤10	Free Flow
B	>10 – 20	Stable Flow (slight delays)
C	>20 – 35	Stable flow (acceptable delays)
D	>35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 – 80	Unstable flow (intolerable delay)
F ¹	>80	Forced flow (congested and queues fail to clear)

Source: *Highway Capacity Manual 2010 and 6th Edition*, Transportation Research Board, 2010 and 2016, respectively.

1. If the volume-to-capacity (v/c) ratio for a lane group exceeds 1.0 LOS F is assigned to the individual lane group. LOS for overall approach or intersection is determined solely by the control delay.

Unsignalized intersection LOS criteria can be further reduced into two intersection types: all-way stop and two-way stop control. All-way stop control intersection LOS is expressed in terms of the weighted average control delay of the overall intersection or by approach. Two-way stop-controlled intersection LOS is defined in terms of the average control delay for each minor-street movement (or shared movement) as well as major-street left-turns. This approach is because major-street through vehicles are assumed to experience zero delay, a weighted average of all movements results in very low overall average delay, and this calculated low delay could mask deficiencies of minor movements. Table 2 shows LOS criteria for unsignalized intersections.

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	>10 – 15
C	>15 – 25
D	>25 – 35
E	>35 – 50
F ¹	>50

Source: *Highway Capacity Manual 2010 and 6th Edition*, Transportation Research Board, 2010 and 2016, respectively.

1. If the volume-to-capacity (v/c) ratio exceeds 1.0, LOS F is assigned an individual lane group for all unsignalized intersections, or minor street approach at two-way stop-controlled intersections. Overall intersection LOS is determined solely by control delay.

Appendix E: Level of Service (LOS) Calculation Worksheets

Appendix E: Existing (2022) Conditions

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	1265	470	5
Future Vol, veh/h	5	5	5	1265	470	5
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	6	6
Mvmt Flow	5	5	5	1346	500	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1188	255	506	0	-	0
Stage 1	504	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	184	750	1034	-	-	-
Stage 1	578	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	183	749	1033	-	-	-
Mov Cap-2 Maneuver	318	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.3	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1033	-	446	-	-	
HCM Lane V/C Ratio	0.005	-	0.024	-	-	
HCM Control Delay (s)	8.5	-	13.3	-	-	
HCM Lane LOS	A	-	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	85	1175	20	15	470
Future Vol, veh/h	20	85	1175	20	15	470
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	132	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	5	5	6	6
Mvmt Flow	22	92	1277	22	16	511
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1578	652	0	0	1300	0
Stage 1	1289	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.22	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.26	-
Pot Cap-1 Maneuver	99	408	-	-	508	-
Stage 1	220	-	-	-	-	-
Stage 2	732	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	94	407	-	-	508	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	220	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	18.5	0	0.4			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 181 407	508	-		
HCM Lane V/C Ratio	-	- 0.12 0.227	0.032	-		
HCM Control Delay (s)	-	- 27.6 16.4	12.3	-		
HCM Lane LOS	-	- D C	B	-		
HCM 95th %tile Q(veh)	-	- 0.4 0.9	0.1	-		

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	1215	5	5	455
Future Vol, veh/h	5	5	1215	5	5	455
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	5	5	1293	5	5	484
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1550	651	0	0	1299	0
Stage 1	1297	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24	-
Pot Cap-1 Maneuver	107	416	-	-	519	-
Stage 1	224	-	-	-	-	-
Stage 2	772	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	106	415	-	-	519	-
Mov Cap-2 Maneuver	188	-	-	-	-	-
Stage 1	224	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	19.5	0		0.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	259	519	-	
HCM Lane V/C Ratio	-	-	0.041	0.01	-	
HCM Control Delay (s)	-	-	19.5	12	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

HCM 6th Signalized Intersection Summary 4: SR-161 & 24th St. E.

Edgewood Concurrency
Existing (2022) Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	50	60	50	110	90	55	1065	45	35	405	40
Future Volume (veh/h)	85	50	60	50	110	90	55	1065	45	35	405	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	91	54	65	54	118	97	59	1145	48	38	435	43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	4	4	4
Cap, veh/h	114	114	138	69	117	96	76	2138	90	60	1997	197
Arrive On Green	0.07	0.15	0.15	0.04	0.13	0.13	0.04	0.63	0.63	0.03	0.62	0.62
Sat Flow, veh/h	1739	753	906	1739	925	760	1739	3393	142	1753	3216	316
Grp Volume(v), veh/h	91	0	119	54	0	215	59	585	608	38	236	242
Grp Sat Flow(s),veh/h/ln	1739	0	1659	1739	0	1685	1739	1735	1800	1753	1749	1783
Q Serve(g_s), s	6.7	0.0	8.5	4.0	0.0	16.4	4.4	24.5	24.5	2.8	7.7	7.7
Cycle Q Clear(g_c), s	6.7	0.0	8.5	4.0	0.0	16.4	4.4	24.5	24.5	2.8	7.7	7.7
Prop In Lane	1.00		0.55	1.00		0.45	1.00		0.08	1.00		0.18
Lane Grp Cap(c), veh/h	114	0	252	69	0	213	76	1093	1135	60	1086	1108
V/C Ratio(X)	0.80	0.00	0.47	0.78	0.00	1.01	0.78	0.54	0.54	0.63	0.22	0.22
Avail Cap(c_a), veh/h	225	0	344	83	0	213	198	1093	1135	165	1086	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.9	0.0	50.4	61.9	0.0	56.8	61.6	13.4	13.4	61.9	10.8	10.8
Incr Delay (d2), s/veh	12.2	0.0	1.4	32.3	0.0	64.7	15.7	1.9	1.8	10.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	3.6	2.4	0.0	10.7	2.2	9.6	10.0	1.4	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	0.0	51.8	94.1	0.0	121.5	77.2	15.3	15.2	72.2	11.2	11.2
LnGrp LOS	E	A	D	F	A	F	E	B	B	E	B	B
Approach Vol, veh/h	210			269			1252			516		
Approach Delay, s/veh	60.6			116.0			18.2			15.7		
Approach LOS	E			F			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	85.7	13.1	21.0	9.1	86.8	9.7	24.3				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+I1), s	6.4	9.7	8.7	18.4	4.8	26.5	6.0	10.5				
Green Ext Time (p_c), s	0.1	3.0	0.1	0.0	0.0	10.0	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay	33.3											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	5	5	0	10	5	1140	5	5	535	10
Future Vol, veh/h	5	0	5	5	0	10	5	1140	5	5	535	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	11	11	23	23	23	5	5	5	5	5	5
Mvmt Flow	5	0	5	5	0	11	5	1200	5	5	563	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1797	1794	569	1794	-	1203	574	0	0	1205	0	0
Stage 1	579	579	-	1213	-	-	-	-	-	-	-	-
Stage 2	1218	1215	-	581	-	-	-	-	-	-	-	-
Critical Hdwy	7.21	6.61	6.31	7.33	-	6.43	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.21	5.61	-	6.33	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.21	5.61	-	6.33	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.599	4.099	3.399	3.707	-	3.507	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	59	76	505	55	0	203	984	-	-	569	-	-
Stage 1	485	487	-	202	0	-	-	-	-	-	-	-
Stage 2	212	244	-	465	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	55	74	505	53	-	203	984	-	-	569	-	-
Mov Cap-2 Maneuver	55	74	-	53	-	-	-	-	-	-	-	-
Stage 1	478	483	-	199	-	-	-	-	-	-	-	-
Stage 2	198	240	-	456	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	45.6		45.7		0		0.1					
HCM LOS	E		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	984	-	-	99	104	569	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.106	0.152	0.009	-	-				
HCM Control Delay (s)	8.7	-	-	45.6	45.7	11.4	-	-				
HCM Lane LOS	A	-	-	E	E	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0	-	-				

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Vol, veh/h	15	5	10	15	0	15	5	1140	25	20	505	5
Future Vol, veh/h	15	5	10	15	0	15	5	1140	25	20	505	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	13	13	13	4	4	4	5	5	5
Mvmt Flow	16	5	10	16	0	16	5	1188	26	21	526	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1790	1795	529	1789	1784	1201	531	0	0	1214	0	0
Stage 1	571	571	-	1211	1211	-	-	-	-	-	-	-
Stage 2	1219	1224	-	578	573	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.23	6.63	6.33	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.617	4.117	3.417	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	62	79	546	59	77	214	1026	-	-	564	-	-
Stage 1	502	502	-	212	243	-	-	-	-	-	-	-
Stage 2	218	249	-	483	487	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	56	76	546	53	74	214	1026	-	-	564	-	-
Mov Cap-2 Maneuver	56	76	-	53	74	-	-	-	-	-	-	-
Stage 1	499	483	-	211	242	-	-	-	-	-	-	-
Stage 2	201	248	-	451	469	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	70.2		70.2		0		0.4	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1026	-	-	85	85	564	-
HCM Lane V/C Ratio	0.005	-	-	0.368	0.368	0.037	-
HCM Control Delay (s)	8.5	-	-	70.2	70.2	11.6	-
HCM Lane LOS	A	-	-	F	F	B	-
HCM 95th %tile Q(veh)	0	-	-	1.4	1.4	0.1	-

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Edgewood Concurrency
Existing (2022) Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	0	15	20	0	55	5	880	15	70	450	20
Future Volume (veh/h)	25	0	15	20	0	55	5	880	15	70	450	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1752	1826	1826	1826	1826	1826	1826	1811	1811	1811
Adj Flow Rate, veh/h	27	0	16	22	0	59	5	946	16	75	484	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	10	10	10	5	5	5	5	5	5	6	6	6
Cap, veh/h	113	11	40	66	8	79	9	2579	44	98	1358	62
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.01	0.74	0.74	0.06	0.79	0.79
Sat Flow, veh/h	813	164	579	314	109	1134	1739	3491	59	1725	1719	78
Grp Volume(v), veh/h	43	0	0	81	0	0	5	470	492	75	0	506
Grp Sat Flow(s),veh/h/ln	1555	0	0	1557	0	0	1739	1735	1815	1725	0	1797
Q Serve(g_s), s	0.0	0.0	0.0	2.6	0.0	0.0	0.3	10.1	10.1	4.5	0.0	8.5
Cycle Q Clear(g_c), s	2.6	0.0	0.0	5.2	0.0	0.0	0.3	10.1	10.1	4.5	0.0	8.5
Prop In Lane	0.63		0.37	0.27		0.73	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	165	0	0	153	0	0	9	1282	1341	98	0	1420
V/C Ratio(X)	0.26	0.00	0.00	0.53	0.00	0.00	0.56	0.37	0.37	0.77	0.00	0.36
Avail Cap(c_a), veh/h	321	0	0	327	0	0	75	1282	1341	785	0	1420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.2	0.0	0.0	47.3	0.0	0.0	51.6	4.9	4.9	48.3	0.0	3.2
Incr Delay (d2), s/veh	0.8	0.0	0.0	2.8	0.0	0.0	44.3	0.8	0.8	11.8	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	2.1	0.0	0.0	0.2	3.1	3.3	2.2	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	0.0	0.0	50.2	0.0	0.0	95.8	5.7	5.6	60.1	0.0	3.9
LnGrp LOS	D	A	A	D	A	A	F	A	A	E	A	A
Approach Vol, veh/h	43			81			967			581		
Approach Delay, s/veh	47.0			50.2			6.1			11.1		
Approach LOS	D			D			A			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	87.0		11.9	10.4	81.7		11.9				
Change Period (Y+Rc), s	4.5	4.9		4.6	4.5	4.9		4.6				
Max Green Setting (Gmax), s	4.5	82.1		19.4	47.3	39.3		19.4				
Max Q Clear Time (g_c+I1), s	2.3	10.5		7.2	6.5	12.1		4.6				
Green Ext Time (p_c), s	0.0	3.6		0.2	0.2	6.7		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	11.0											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	890	5	5	485	5	10
Future Vol, veh/h	890	5	5	485	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	5	6	6	7	7
Mvmt Flow	957	5	5	522	5	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	962
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.19
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.257
Pot Cap-1 Maneuver	-	-	693
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	693
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	245	-	-	693	-
HCM Lane V/C Ratio	0.066	-	-	0.008	-
HCM Control Delay (s)	20.7	-	-	10.2	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	895	0	0	485
Future Vol, veh/h	5	5	895	0	0	485
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	6	6
Mvmt Flow	6	6	994	0	0	539

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1533	994	0	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	130	300	-	0	0	-
Stage 1	361	-	-	0	0	-
Stage 2	589	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	130	300	-	-	-	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	589	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.2	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 181	-
HCM Lane V/C Ratio	- 0.061	-
HCM Control Delay (s)	- 26.2	-
HCM Lane LOS	- D	-
HCM 95th %tile Q(veh)	- 0.2	-

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	25	0	10	80	880	25	10	475	5
Future Vol, veh/h	0	0	15	25	0	10	80	880	25	10	475	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	0	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	13	13	13	4	4	4	5	5	5
Mvmt Flow	0	0	16	27	0	11	87	957	27	11	516	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1691	1699	519	1694	1688	971	521	0	0	984	0	0
Stage 1	541	541	-	1145	1145	-	-	-	-	-	-	-
Stage 2	1150	1158	-	549	543	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.23	6.63	6.33	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.617	4.117	3.417	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	75	93	561	69	88	292	1035	-	-	690	-	-
Stage 1	529	524	-	231	262	-	-	-	-	-	-	-
Stage 2	243	273	-	501	502	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	67	84	561	62	79	292	1035	-	-	690	-	-
Mov Cap-2 Maneuver	67	84	-	62	79	-	-	-	-	-	-	-
Stage 1	485	516	-	212	240	-	-	-	-	-	-	-
Stage 2	214	250	-	479	494	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.6		78.2		0.7		0.2	
HCM LOS	B		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1035	-	-	-	561	62	292	690	-	-
HCM Lane V/C Ratio	0.084	-	-	-	0.029	0.438	0.037	0.016	-	-
HCM Control Delay (s)	8.8	-	-	0	11.6	102.3	17.8	10.3	-	-
HCM Lane LOS	A	-	-	A	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	1.7	0.1	0	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	5	750	1185	10
Future Vol, veh/h	10	10	5	750	1185	10
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	6	2	2	2	2
Mvmt Flow	11	11	6	833	1317	11

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1756	668	1330	0	-	0
Stage 1	1325	-	-	-	-	-
Stage 2	431	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.14	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.22	-	-	-
Pot Cap-1 Maneuver	73	391	515	-	-	-
Stage 1	205	-	-	-	-	-
Stage 2	611	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	72	390	514	-	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	202	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	514	-	228	-	-
HCM Lane V/C Ratio	0.011	-	0.097	-	-
HCM Control Delay (s)	12.1	-	22.5	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection

Int Delay, s/veh 1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	60	690	30	95	1105
Future Vol, veh/h	20	60	690	30	95	1105
Conflicting Peds, #/hr	9	10	0	9	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	132	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	2	2	2	2
Mvmt Flow	22	65	750	33	103	1201

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1593	412	0	0	793
Stage 1	777	-	-	-	-
Stage 2	816	-	-	-	-
Critical Hdwy	6.82	6.92	-	-	4.14
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.31	-	-	2.22
Pot Cap-1 Maneuver	99	592	-	-	824
Stage 1	417	-	-	-	-
Stage 2	398	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	61	582	-	-	817
Mov Cap-2 Maneuver	166	-	-	-	-
Stage 1	414	-	-	-	-
Stage 2	245	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 166 582	817	-
HCM Lane V/C Ratio	-	- 0.131 0.112	0.126	-
HCM Control Delay (s)	-	- 29.9 12	10	-
HCM Lane LOS	-	- D B	B	-
HCM 95th %tile Q(veh)	-	- 0.4 0.4	0.4	-

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	690	5	15	1165
Future Vol, veh/h	5	10	690	5	15	1165
Conflicting Peds, #/hr	5	8	0	5	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	6	11	784	6	17	1324

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1496	411	0	0	798
Stage 1	795	-	-	-	-
Stage 2	701	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23
Pot Cap-1 Maneuver	116	596	-	-	814
Stage 1	410	-	-	-	-
Stage 2	459	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	112	588	-	-	809
Mov Cap-2 Maneuver	246	-	-	-	-
Stage 1	407	-	-	-	-
Stage 2	448	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	402	809
HCM Lane V/C Ratio	-	-	0.042	0.021
HCM Control Delay (s)	-	-	14.4	9.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Edgewood Concurrency
Existing (2022) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	60	85	50	75	30	85	525	25	55	975	125
Future Volume (veh/h)	115	60	85	50	75	30	85	525	25	55	975	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	128	67	94	56	83	33	94	583	28	61	1083	139
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	3	3	3
Cap, veh/h	153	93	130	72	110	44	117	2202	106	78	1937	248
Arrive On Green	0.09	0.13	0.13	0.04	0.09	0.09	0.07	0.64	0.64	0.04	0.62	0.62
Sat Flow, veh/h	1767	695	975	1781	1267	504	1781	3451	166	1767	3142	403
Grp Volume(v), veh/h	128	0	161	56	0	116	94	300	311	61	607	615
Grp Sat Flow(s),veh/h/ln	1767	0	1670	1781	0	1771	1781	1777	1840	1767	1763	1782
Q Serve(g_s), s	9.3	0.0	12.0	4.0	0.0	8.3	6.8	9.6	9.6	4.4	26.2	26.3
Cycle Q Clear(g_c), s	9.3	0.0	12.0	4.0	0.0	8.3	6.8	9.6	9.6	4.4	26.2	26.3
Prop In Lane	1.00		0.58	1.00		0.28	1.00		0.09	1.00		0.23
Lane Grp Cap(c), veh/h	153	0	223	72	0	154	117	1134	1174	78	1087	1099
V/C Ratio(X)	0.83	0.00	0.72	0.78	0.00	0.75	0.80	0.26	0.27	0.78	0.56	0.56
Avail Cap(c_a), veh/h	228	0	347	85	0	223	203	1134	1174	166	1087	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	0.0	54.0	61.8	0.0	58.0	59.9	10.2	10.2	61.5	14.6	14.6
Incr Delay (d2), s/veh	15.2	0.0	4.4	31.2	0.0	8.2	11.8	0.6	0.6	15.1	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	5.3	2.4	0.0	4.1	3.4	3.8	3.9	2.3	10.6	10.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.7	0.0	58.4	93.0	0.0	66.2	71.7	10.8	10.8	76.6	16.6	16.7
LnGrp LOS	E	A	E	F	A	E	E	B	B	E	B	B
Approach Vol, veh/h	289			172			705			1283		
Approach Delay, s/veh	65.2			74.9			18.9			19.5		
Approach LOS	E			E			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	85.1	15.9	15.9	10.4	87.8	9.8	21.9				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+I1), s	8.8	28.3	11.3	10.3	6.4	11.6	6.0	14.0				
Green Ext Time (p_c), s	0.1	10.2	0.1	0.2	0.0	4.0	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	28.6											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕				↕		↕	↕	
Traffic Vol, veh/h	10	0	5	5	0	5	5	585	10	5	1065	20
Future Vol, veh/h	10	0	5	5	0	5	5	585	10	5	1065	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	2	2	2
Mvmt Flow	11	0	6	6	0	6	6	657	11	6	1197	22
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	1898	1900	1208	1898	-	663	1219	0	0	668	0	0
Stage 1	1220	1220	-	675	-	-	-	-	-	-	-	-
Stage 2	678	680	-	1223	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	-	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	-	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	53	70	225	53	0	465	572	-	-	922	-	-
Stage 1	222	255	-	447	0	-	-	-	-	-	-	-
Stage 2	445	454	-	221	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	51	68	225	51	-	465	572	-	-	922	-	-
Mov Cap-2 Maneuver	51	68	-	51	-	-	-	-	-	-	-	-
Stage 1	218	253	-	439	-	-	-	-	-	-	-	-
Stage 2	432	446	-	214	-	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Control Delay, s	73.3		49.5		0.1				0			
HCM LOS	F		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	572	-	-	69	92	922	-	-				
HCM Lane V/C Ratio	0.01	-	-	0.244	0.122	0.006	-	-				
HCM Control Delay (s)	11.4	-	-	73.3	49.5	8.9	-	-				
HCM Lane LOS	B	-	-	F	E	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.9	0.4	0	-	-				

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	10	5	5	15	5	20	5	555	20	30	1020	15
Future Vol, veh/h	10	5	5	15	5	20	5	555	20	30	1020	15
Conflicting Peds, #/hr	0	0	1	2	0	1	1	0	2	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	11	6	6	17	6	22	6	624	22	34	1146	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1886	1884	1158	1880	1881	638	1164	0	0	648	0	0
Stage 1	1224	1224	-	649	649	-	-	-	-	-	-	-
Stage 2	662	660	-	1231	1232	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	54	72	241	54	71	475	600	-	-	938	-	-
Stage 1	221	254	-	457	464	-	-	-	-	-	-	-
Stage 2	454	463	-	216	248	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	46	68	240	48	68	474	600	-	-	936	-	-
Mov Cap-2 Maneuver	46	68	-	48	68	-	-	-	-	-	-	-
Stage 1	219	245	-	452	458	-	-	-	-	-	-	-
Stage 2	423	457	-	198	239	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	89	75.6	0.1	0.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	600	-	-	64	93	936	-
HCM Lane V/C Ratio	0.009	-	-	0.351	0.483	0.036	-
HCM Control Delay (s)	11.1	-	-	89	75.6	9	-
HCM Lane LOS	B	-	-	F	F	A	-
HCM 95th %tile Q(veh)	0	-	-	1.3	2.1	0.1	-

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Edgewood Concurrency
Existing (2022) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	5	10	20	5	60	10	430	25	405	605	25
Future Volume (veh/h)	15	5	10	20	5	60	10	430	25	405	605	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.93	0.96		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	15	5	10	21	5	62	10	443	26	418	624	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	4	4	3	3	3	3	3	3	3	3	3
Cap, veh/h	99	36	45	58	18	94	17	1826	107	454	1392	58
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.01	0.54	0.54	0.26	0.79	0.79
Sat Flow, veh/h	622	417	519	245	207	1077	1767	3384	198	1767	1768	74
Grp Volume(v), veh/h	30	0	0	88	0	0	10	230	239	418	0	650
Grp Sat Flow(s),veh/h/ln	1558	0	0	1529	0	0	1767	1763	1819	1767	0	1842
Q Serve(g_s), s	0.0	0.0	0.0	3.4	0.0	0.0	0.7	8.3	8.3	27.6	0.0	13.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	6.6	0.0	0.0	0.7	8.3	8.3	27.6	0.0	13.9
Prop In Lane	0.50		0.33	0.24		0.70	1.00		0.11	1.00		0.04
Lane Grp Cap(c), veh/h	180	0	0	170	0	0	17	951	982	454	0	1450
V/C Ratio(X)	0.17	0.00	0.00	0.52	0.00	0.00	0.60	0.24	0.24	0.92	0.00	0.45
Avail Cap(c_a), veh/h	286	0	0	281	0	0	66	951	982	697	0	1450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.9	0.0	0.0	53.0	0.0	0.0	59.2	14.6	14.6	43.4	0.0	4.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	2.4	0.0	0.0	29.8	0.6	0.6	12.7	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	2.7	0.0	0.0	0.4	3.4	3.5	13.5	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	0.0	0.0	55.4	0.0	0.0	89.0	15.2	15.2	56.0	0.0	5.2
LnGrp LOS	D	A	A	E	A	A	F	B	B	E	A	A
Approach Vol, veh/h		30			88			479			1068	
Approach Delay, s/veh		51.4			55.4			16.8			25.1	
Approach LOS		D			E			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	99.3		15.0	35.3	69.6		15.0				
Change Period (Y+Rc), s	4.5	4.9		4.6	4.5	4.9		4.6				
Max Green Setting (Gmax), s	4.5	82.1		19.4	47.3	39.3		19.4				
Max Q Clear Time (g_c+I1), s	2.7	15.9		8.6	29.6	10.3		4.0				
Green Ext Time (p_c), s	0.0	5.1		0.3	1.2	2.8		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				24.8								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	445	5	10	640	5	10
Future Vol, veh/h	445	5	10	640	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	706	8	16	1016	8	16

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	714	0	1758
Stage 1	-	-	-	-	710
Stage 2	-	-	-	-	1048
Critical Hdwy	-	-	4.145	-	6.6
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2285	-	3.5
Pot Cap-1 Maneuver	-	-	878	-	86
Stage 1	-	-	-	-	454
Stage 2	-	-	-	-	341
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	878	-	82
Mov Cap-2 Maneuver	-	-	-	-	82
Stage 1	-	-	-	-	454
Stage 2	-	-	-	-	327

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	25.9
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	196	-	-	878	-
HCM Lane V/C Ratio	0.121	-	-	0.018	-
HCM Control Delay (s)	25.9	-	-	9.2	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	5	475	0	0	630
Future Vol, veh/h	0	5	475	0	0	630
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	1	3	3
Mvmt Flow	0	5	505	0	0	670
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1175	505	0	-	-	-
Stage 1	505	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	214	571	-	0	0	-
Stage 1	610	-	-	0	0	-
Stage 2	512	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	214	571	-	-	-	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.4	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	- 571		-			
HCM Lane V/C Ratio	- 0.009		-			
HCM Control Delay (s)	- 11.4		-			
HCM Lane LOS	- B		-			
HCM 95th %tile Q(veh)	- 0		-			

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	20	15	0	10	10	455	35	5	625	5
Future Vol, veh/h	5	0	20	15	0	10	10	455	35	5	625	5
Conflicting Peds, #/hr	3	0	3	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	0	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	3	3	3
Mvmt Flow	5	0	21	16	0	11	11	479	37	5	658	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1202	1212	667	1204	1196	501	666	0	0	516	0	0
Stage 1	674	674	-	520	520	-	-	-	-	-	-	-
Stage 2	528	538	-	684	676	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.227	-	-
Pot Cap-1 Maneuver	163	184	462	162	188	574	928	-	-	1045	-	-
Stage 1	448	457	-	543	535	-	-	-	-	-	-	-
Stage 2	538	526	-	442	456	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	157	181	460	152	184	573	926	-	-	1045	-	-
Mov Cap-2 Maneuver	157	181	-	152	184	-	-	-	-	-	-	-
Stage 1	442	454	-	536	529	-	-	-	-	-	-	-
Stage 2	521	520	-	419	453	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	16.3		23.4		0.2		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	926	-	-	157	460	152	573	1045	-	-
HCM Lane V/C Ratio	0.011	-	-	0.034	0.046	0.104	0.018	0.005	-	-
HCM Control Delay (s)	8.9	-	-	28.7	13.2	31.4	11.4	8.5	-	-
HCM Lane LOS	A	-	-	D	B	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.3	0.1	0	-	-

Appendix E: Future (2035) No Build Conditions

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	5	5	1575	610	15
Future Vol, veh/h	25	5	5	1575	610	15
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	6	6
Mvmt Flow	27	5	5	1676	649	16

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1507	335	666	0	-	0
Stage 1	658	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	114	667	899	-	-	-
Stage 1	482	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	666	898	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	385	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	898	-	275	-	-
HCM Lane V/C Ratio	0.006	-	0.116	-	-
HCM Control Delay (s)	9	-	19.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/20th St E - AM Peak Hour - Future 2035 Baseline (Site Folder: General)]**

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	5.0	1	5.0	0.696	13.6	LOS B	6.4	166.3	0.54	0.51	0.54	36.9
3	L2	60	5.0	65	5.0	0.696	11.1	LOS B	6.4	166.3	0.54	0.51	0.54	36.0
8	T1	1400	5.0	1522	5.0	0.696	5.2	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
18	R2	65	5.0	71	5.0	0.696	5.3	LOS A	6.4	166.8	0.53	0.49	0.53	34.9
Approach		1526	5.0	1659	5.0	0.696	5.5	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
East: 20th St E														
1u	U	1	3.0	1	3.0	0.418	19.6	LOS B	2.0	51.6	0.80	0.96	0.95	33.7
1	L2	80	3.0	87	3.0	0.418	17.1	LOS B	2.0	51.6	0.80	0.96	0.95	32.9
6	T1	10	3.0	11	3.0	0.418	11.3	LOS B	2.0	51.6	0.80	0.96	0.95	32.8
16	R2	85	3.0	92	3.0	0.418	11.1	LOS B	2.0	51.6	0.80	0.96	0.95	31.9
Approach		176	3.0	191	3.0	0.418	13.9	LOS B	2.0	51.6	0.80	0.96	0.95	32.4
North: Meridian Ave E														
7u	U	1	6.0	1	6.0	0.296	13.2	LOS B	1.5	39.8	0.36	0.47	0.36	37.7
7	L2	15	6.0	16	6.0	0.296	10.7	LOS B	1.5	39.8	0.36	0.47	0.36	36.7
4	T1	545	6.0	592	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.47	0.35	36.7
14	R2	60	6.0	65	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.46	0.35	35.5
Approach		621	6.0	675	6.0	0.296	5.0	LOS A	1.5	40.0	0.35	0.47	0.35	36.6
West: 20th St E														
5u	U	1	0.0	1	0.0	0.195	14.5	LOS B	0.7	17.8	0.51	0.78	0.51	35.9
5	L2	90	0.0	98	0.0	0.195	12.0	LOS B	0.7	17.8	0.51	0.78	0.51	35.0
2	T1	10	0.0	11	0.0	0.195	6.2	LOS A	0.7	17.8	0.51	0.78	0.51	34.9
12	R2	45	0.0	49	0.0	0.195	6.1	LOS A	0.7	17.8	0.51	0.78	0.51	33.9
Approach		146	0.0	159	0.0	0.195	9.8	LOS A	0.7	17.8	0.51	0.78	0.51	34.7
All Vehicles		2469	4.8	2684	4.8	0.696	6.2	LOS A	6.4	166.8	0.51	0.54	0.52	35.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	1515	5	10	660
Future Vol, veh/h	5	10	1515	5	10	660
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	5	11	1612	5	11	702

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1990	811	0	0	1618
Stage 1	1616	-	-	-	-
Stage 2	374	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24
Pot Cap-1 Maneuver	54	327	-	-	390
Stage 1	151	-	-	-	-
Stage 2	672	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	52	326	-	-	390
Mov Cap-2 Maneuver	125	-	-	-	-
Stage 1	151	-	-	-	-
Stage 2	653	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.4	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	212	390
HCM Lane V/C Ratio	-	-	0.075	0.027
HCM Control Delay (s)	-	-	23.4	14.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue
Baseline (2035) Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Future Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	226	91	140	108	177	129	124	1285	38	59	565	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	4	4	4
Cap, veh/h	225	134	207	83	124	90	148	1918	57	76	1600	212
Arrive On Green	0.13	0.21	0.21	0.05	0.13	0.13	0.09	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1739	647	996	1739	980	714	1739	3440	102	1753	3104	411
Grp Volume(v), veh/h	226	0	231	108	0	306	124	647	676	59	318	322
Grp Sat Flow(s),veh/h/ln	1739	0	1643	1739	0	1693	1739	1735	1807	1753	1749	1766
Q Serve(g_s), s	16.8	0.0	16.8	6.2	0.0	16.4	9.1	34.3	34.3	4.3	14.0	14.1
Cycle Q Clear(g_c), s	16.8	0.0	16.8	6.2	0.0	16.4	9.1	34.3	34.3	4.3	14.0	14.1
Prop In Lane	1.00		0.61	1.00		0.42	1.00		0.06	1.00		0.23
Lane Grp Cap(c), veh/h	225	0	341	83	0	214	148	967	1008	76	901	910
V/C Ratio(X)	1.01	0.00	0.68	1.30	0.00	1.43	0.84	0.67	0.67	0.78	0.35	0.35
Avail Cap(c_a), veh/h	225	0	341	83	0	214	198	967	1008	165	901	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.6	0.0	47.5	61.9	0.0	56.8	58.6	20.3	20.3	61.6	18.6	18.7
Incr Delay (d2), s/veh	61.5	0.0	5.3	199.7	0.0	219.3	20.1	3.7	3.5	15.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	7.4	7.3	0.0	20.0	4.8	14.3	14.9	2.2	5.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	118.1	0.0	52.7	261.6	0.0	276.1	78.7	24.0	23.9	77.2	19.7	19.7
LnGrp LOS	F	A	D	F	A	F	E	C	C	E	B	B
Approach Vol, veh/h		457			414			1447			699	
Approach Delay, s/veh		85.1			272.3			28.6			24.6	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	71.9	21.4	21.0	10.2	77.4	10.8	31.6				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+I1), s	11.1	16.1	18.8	18.4	6.3	36.3	8.2	18.8				
Green Ext Time (p_c), s	0.1	4.3	0.0	0.0	0.0	10.8	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			69.7									
HCM 6th LOS			E									

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕				↕		↕	↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	1315	5	10	770	10
Future Vol, veh/h	5	0	5	5	0	25	5	1315	5	10	770	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	11	11	23	23	23	5	5	5	5	5	5
Mvmt Flow	5	0	5	5	0	26	5	1384	5	11	811	11

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2249	2238	817	2238	-	1387	822	0	0	1389	0	0
Stage 1	839	839	-	1397	-	-	-	-	-	-	-	-
Stage 2	1410	1399	-	841	-	-	-	-	-	-	-	-
Critical Hdwy	7.21	6.61	6.31	7.33	-	6.43	4.15	-	-	4.15	-	-
Critical Hdwy Stg 1	6.21	5.61	-	6.33	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.21	5.61	-	6.33	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.599	4.099	3.399	3.707	-	3.507	2.245	-	-	2.245	-	-
Pot Cap-1 Maneuver	28	40	363	26	0	157	795	-	-	483	-	-
Stage 1	348	369	-	157	0	-	-	-	-	-	-	-
Stage 2	164	198	-	331	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	22	38	363	25	-	157	795	-	-	483	-	-
Mov Cap-2 Maneuver	22	38	-	25	-	-	-	-	-	-	-	-
Stage 1	338	361	-	153	-	-	-	-	-	-	-	-
Stage 2	133	192	-	319	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	120.8		71.7		0		0.2	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	795	-	-	41	84	483	-	-
HCM Lane V/C Ratio	0.007	-	-	0.257	0.376	0.022	-	-
HCM Control Delay (s)	9.6	-	-	120.8	71.7	12.6	-	-
HCM Lane LOS	A	-	-	F	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.5	0.1	-	-

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	35	50	10	20	45	15	70	1320	40	70	695	20
Future Vol, veh/h	35	50	10	20	45	15	70	1320	40	70	695	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	4	4	4	13	13	13	4	4	4	5	5	5
Mvmt Flow	36	52	10	21	47	16	73	1375	42	73	724	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2455	2444	735	2454	2433	1396	745	0	0	1417	0	0
Stage 1	881	881	-	1542	1542	-	-	-	-	-	-	-
Stage 2	1574	1563	-	912	891	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.23	6.63	6.33	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.617	4.117	3.417	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	~ 21	~ 31	416	~ 19	~ 29	163	854	-	-	472	-	-
Stage 1	339	362	-	136	167	-	-	-	-	-	-	-
Stage 2	137	171	-	314	346	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 24	416	-	~ 22	163	854	-	-	472	-	-
Mov Cap-2 Maneuver	-	~ 24	-	-	~ 22	-	-	-	-	-	-	-
Stage 1	310	306	-	124	153	-	-	-	-	-	-	-
Stage 2	79	156	-	215	292	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.5	1.2
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	854	-	-	-	472	-	-
HCM Lane V/C Ratio	0.085	-	-	-	0.154	-	-
HCM Control Delay (s)	9.6	-	-	-	14	-	-
HCM Lane LOS	A	-	-	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Meridian Avenue
Baseline (2035) Weekday AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	45	80	0	305	35	1070	100	105	595	25
Future Volume (veh/h)	50	0	45	80	0	305	35	1070	100	105	595	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1752	1826	1826	1826	1826	1826	1826	1811	1811	1811
Adj Flow Rate, veh/h	54	0	48	86	0	328	38	1151	108	113	640	27
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	10	10	10	5	5	5	5	5	5	6	6	6
Cap, veh/h	109	13	67	85	5	202	48	2042	191	141	1193	50
Arrive On Green	0.16	0.00	0.16	0.16	0.00	0.16	0.03	0.64	0.64	0.08	0.69	0.69
Sat Flow, veh/h	382	78	409	295	29	1236	1739	3206	300	1725	1725	73
Grp Volume(v), veh/h	102	0	0	414	0	0	38	622	637	113	0	667
Grp Sat Flow(s),veh/h/ln	870	0	0	1561	0	0	1739	1735	1772	1725	0	1798
Q Serve(g_s), s	0.0	0.0	0.0	6.9	0.0	0.0	2.6	24.1	24.2	7.6	0.0	21.6
Cycle Q Clear(g_c), s	12.5	0.0	0.0	19.4	0.0	0.0	2.6	24.1	24.2	7.6	0.0	21.6
Prop In Lane	0.53		0.47	0.21		0.79	1.00		0.17	1.00		0.04
Lane Grp Cap(c), veh/h	188	0	0	291	0	0	48	1105	1129	141	0	1243
V/C Ratio(X)	0.54	0.00	0.00	1.42	0.00	0.00	0.79	0.56	0.56	0.80	0.00	0.54
Avail Cap(c_a), veh/h	188	0	0	291	0	0	66	1105	1129	687	0	1243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.2	0.0	0.0	50.8	0.0	0.0	57.4	12.2	12.2	53.6	0.0	9.0
Incr Delay (d2), s/veh	3.1	0.0	0.0	208.1	0.0	0.0	35.2	2.1	2.0	10.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	25.6	0.0	0.0	1.6	9.2	9.5	3.7	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	0.0	0.0	258.9	0.0	0.0	92.6	14.3	14.3	63.6	0.0	10.7
LnGrp LOS	D	A	A	F	A	A	F	B	B	E	A	B
Approach Vol, veh/h	102			414			1297			780		
Approach Delay, s/veh	49.3			258.9			16.6			18.3		
Approach LOS	D			F			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	87.0		24.0	14.2	80.6		24.0				
Change Period (Y+Rc), s	4.5	4.9		4.6	4.5	4.9		4.6				
Max Green Setting (Gmax), s	4.5	82.1		19.4	47.3	39.3		19.4				
Max Q Clear Time (g_c+I1), s	4.6	23.6		21.4	9.6	26.2		14.5				
Green Ext Time (p_c), s	0.0	5.3		0.0	0.3	6.8		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	57.1											
HCM 6th LOS	E											

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	1195	5	5	725	5	10
Future Vol, veh/h	1195	5	5	725	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	5	6	6	7	7
Mvmt Flow	1285	5	5	780	5	11

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1290
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.19
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.257
Pot Cap-1 Maneuver	-	-	518
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	518
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	40.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	118	-	-	518	-
HCM Lane V/C Ratio	0.137	-	-	0.01	-
HCM Control Delay (s)	40.3	-	-	12	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	1220	0	0	725
Future Vol, veh/h	5	5	1220	0	0	725
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	4	4	6	6
Mvmt Flow	6	6	1356	0	0	806
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2162	1356	0	-	-	-
Stage 1	1356	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	53	184	-	0	0	-
Stage 1	242	-	-	0	0	-
Stage 2	443	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	53	184	-	-	-	-
Mov Cap-2 Maneuver	53	-	-	-	-	-
Stage 1	242	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	55.7	0	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	- 82		-			
HCM Lane V/C Ratio	- 0.136		-			
HCM Control Delay (s)	- 55.7		-			
HCM Lane LOS	- F		-			
HCM 95th %tile Q(veh)	- 0.4		-			

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	25	0	10	80	1210	25	10	710	5
Future Vol, veh/h	0	0	15	25	0	10	80	1210	25	10	710	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	0	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	13	13	13	4	4	4	5	5	5
Mvmt Flow	0	0	16	27	0	11	87	1315	27	11	772	5

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2305	2313	775	2308	2302	1329	777	0	0	1342	0	0
Stage 1	797	797	-	1503	1503	-	-	-	-	-	-	-
Stage 2	1508	1516	-	805	799	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.23	6.63	6.33	4.14	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.23	5.63	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.23	5.63	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.617	4.117	3.417	2.236	-	-	2.245	-	-
Pot Cap-1 Maneuver	27	38	401	~ 25	36	179	831	-	-	504	-	-
Stage 1	383	401	-	143	175	-	-	-	-	-	-	-
Stage 2	152	184	-	360	382	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	23	33	401	~ 22	32	179	831	-	-	504	-	-
Mov Cap-2 Maneuver	23	33	-	~ 22	32	-	-	-	-	-	-	-
Stage 1	343	392	-	128	157	-	-	-	-	-	-	-
Stage 2	128	165	-	338	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	\$ 384.5	0.6	0.2
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	831	-	-	-	401	22	179	504	-	-
HCM Lane V/C Ratio	0.105	-	-	-	0.041	1.235	0.061	0.022	-	-
HCM Control Delay (s)	9.8	-	-	0	14.4	\$ 527.7	26.4	12.3	-	-
HCM Lane LOS	A	-	-	A	B	F	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	3.5	0.2	0.1	-	-

Notes										
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon							

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	5	905	1535	30
Future Vol, veh/h	10	10	5	905	1535	30
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	6	2	2	2	2
Mvmt Flow	11	11	6	1006	1706	33

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2242	874	1741	0	-	0
Stage 1	1725	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.14	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.22	-	-	-
Pot Cap-1 Maneuver	34	285	357	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	284	356	-	-	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	122	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	356	-	147	-	-
HCM Lane V/C Ratio	0.016	-	0.151	-	-
HCM Control Delay (s)	15.3	-	33.8	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

MOVEMENT SUMMARY

 Site: 101 [Meridian Ave E/20th St E - PM Peak Hour - Future
2035 Baseline (Site Folder: General)]

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	2.0	1	2.0	0.427	13.4	LOS B	2.5	62.4	0.41	0.50	0.41	37.4
3	L2	50	2.0	54	2.0	0.427	10.9	LOS B	2.5	62.4	0.41	0.50	0.41	36.5
8	T1	775	2.0	842	2.0	0.427	5.0	LOS A	2.5	62.8	0.41	0.50	0.41	36.5
18	R2	100	2.0	109	2.0	0.427	5.1	LOS A	2.5	62.8	0.41	0.49	0.41	35.4
Approach		926	2.0	1007	2.0	0.427	5.4	LOS A	2.5	62.8	0.41	0.49	0.41	36.4
East: 20th St E														
1u	U	1	1.0	1	1.0	0.208	15.2	LOS B	0.8	20.0	0.59	0.83	0.59	35.9
1	L2	70	1.0	76	1.0	0.208	12.7	LOS B	0.8	20.0	0.59	0.83	0.59	35.0
6	T1	5	1.0	5	1.0	0.208	6.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.9
16	R2	60	1.0	65	1.0	0.208	6.8	LOS A	0.8	20.0	0.59	0.83	0.59	33.8
Approach		136	1.0	148	1.0	0.208	9.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.5
North: Meridian Ave E														
7u	U	1	2.0	1	2.0	0.689	13.5	LOS B	6.1	153.9	0.53	0.52	0.53	37.0
7	L2	95	2.0	103	2.0	0.689	11.0	LOS B	6.1	153.9	0.53	0.52	0.53	36.0
4	T1	1355	2.0	1473	2.0	0.689	5.2	LOS A	6.1	154.4	0.53	0.51	0.53	36.1
14	R2	100	2.0	109	2.0	0.689	5.2	LOS A	6.1	154.4	0.52	0.49	0.52	35.0
Approach		1551	2.0	1686	2.0	0.689	5.6	LOS A	6.1	154.4	0.53	0.51	0.53	36.0
West: 20th St E														
5u	U	1	0.0	1	0.0	0.330	18.0	LOS B	1.5	37.5	0.76	0.92	0.83	34.6
5	L2	70	0.0	76	0.0	0.330	15.5	LOS B	1.5	37.5	0.76	0.92	0.83	33.7
2	T1	10	0.0	11	0.0	0.330	9.7	LOS A	1.5	37.5	0.76	0.92	0.83	33.6
12	R2	70	0.0	76	0.0	0.330	9.6	LOS A	1.5	37.5	0.76	0.92	0.83	32.6
Approach		151	0.0	164	0.0	0.330	12.4	LOS B	1.5	37.5	0.76	0.92	0.83	33.2
All Vehicles		2764	1.8	3004	1.8	0.689	6.1	LOS A	6.1	154.4	0.50	0.54	0.51	35.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	835	5	20	1465
Future Vol, veh/h	5	15	835	5	20	1465
Conflicting Peds, #/hr	9	10	0	9	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	6	17	949	6	23	1665

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1850	498	0	0	965
Stage 1	962	-	-	-	-
Stage 2	888	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23
Pot Cap-1 Maneuver	67	523	-	-	703
Stage 1	336	-	-	-	-
Stage 2	367	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	64	514	-	-	697
Mov Cap-2 Maneuver	185	-	-	-	-
Stage 1	333	-	-	-	-
Stage 2	352	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	697
HCM Lane V/C Ratio	-	-	0.064	0.033
HCM Control Delay (s)	-	-	15.8	10.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue
Baseline (2035) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	120	135	40	140	50	140	630	50	115	1110	255
Future Volume (veh/h)	170	120	135	40	140	50	140	630	50	115	1110	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	189	133	150	44	156	56	156	700	56	128	1233	283
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	3	3	3
Cap, veh/h	214	167	188	65	165	59	181	1742	139	152	1447	328
Arrive On Green	0.12	0.21	0.21	0.04	0.13	0.13	0.10	0.52	0.52	0.09	0.51	0.51
Sat Flow, veh/h	1767	793	895	1781	1310	470	1781	3332	266	1767	2852	647
Grp Volume(v), veh/h	189	0	283	44	0	212	156	373	383	128	756	760
Grp Sat Flow(s),veh/h/ln	1767	0	1688	1781	0	1780	1781	1777	1821	1767	1763	1736
Q Serve(g_s), s	13.7	0.0	20.7	3.2	0.0	15.4	11.2	16.5	16.5	9.3	48.1	49.9
Cycle Q Clear(g_c), s	13.7	0.0	20.7	3.2	0.0	15.4	11.2	16.5	16.5	9.3	48.1	49.9
Prop In Lane	1.00		0.53	1.00		0.26	1.00		0.15	1.00		0.37
Lane Grp Cap(c), veh/h	214	0	355	65	0	225	181	929	952	152	894	881
V/C Ratio(X)	0.88	0.00	0.80	0.67	0.00	0.94	0.86	0.40	0.40	0.84	0.85	0.86
Avail Cap(c_a), veh/h	228	0	355	85	0	225	203	929	952	166	894	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	0.0	48.7	61.8	0.0	56.3	57.5	18.7	18.7	58.5	27.6	28.1
Incr Delay (d2), s/veh	29.8	0.0	12.0	12.7	0.0	44.5	27.4	1.3	1.3	28.7	9.7	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	9.8	1.7	0.0	9.6	6.4	7.0	7.2	5.3	21.8	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	0.0	60.7	74.5	0.0	100.9	84.8	20.0	20.0	87.3	37.3	39.0
LnGrp LOS	F	A	E	E	A	F	F	C	B	F	D	D
Approach Vol, veh/h	472			256			912			1644		
Approach Delay, s/veh	70.8			96.3			31.1			42.0		
Approach LOS	E			F			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.8	70.9	20.3	21.0	15.8	72.9	9.4	32.0				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+l1), s	13.2	51.9	15.7	17.4	11.3	18.5	5.2	22.7				
Green Ext Time (p_c), s	0.1	7.5	0.1	0.0	0.0	5.3	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay	47.3											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔				↔		↔	↔	
Traffic Vol, veh/h	10	0	5	5	0	10	5	820	10	20	1240	20
Future Vol, veh/h	10	0	5	5	0	10	5	820	10	20	1240	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	2	2	2
Mvmt Flow	11	0	6	6	0	11	6	921	11	22	1393	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2392	2392	1404	2390	-	927	1415	0	0	932	0	0
Stage 1	1448	1448	-	939	-	-	-	-	-	-	-	-
Stage 2	944	944	-	1451	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	-	6.2	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	-	3.3	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	24	34	173	24	0	328	482	-	-	734	-	-
Stage 1	165	198	-	320	0	-	-	-	-	-	-	-
Stage 2	317	344	-	164	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	22	32	173	22	-	328	482	-	-	734	-	-
Mov Cap-2 Maneuver	22	32	-	22	-	-	-	-	-	-	-	-
Stage 1	161	192	-	312	-	-	-	-	-	-	-	-
Stage 2	298	335	-	154	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	215.8		90.7		0.1		0.2	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	482	-	-	31	58	734	-
HCM Lane V/C Ratio	0.012	-	-	0.544	0.291	0.031	-
HCM Control Delay (s)	12.6	-	-	215.8	90.7	10.1	-
HCM Lane LOS	B	-	-	F	F	B	-
HCM 95th %tile Q(veh)	0	-	-	1.8	1	0.1	-

Intersection												
Int Delay, s/veh	92.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	25	50	70	30	10	70	5	740	25	30	1195	35
Future Vol, veh/h	25	50	70	30	10	70	5	740	25	30	1195	35
Conflicting Peds, #/hr	0	0	1	2	0	1	1	0	2	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	28	56	79	34	11	79	6	831	28	34	1343	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2335	2305	1366	2359	2310	848	1383	0	0	861	0	0
Stage 1	1432	1432	-	859	859	-	-	-	-	-	-	-
Stage 2	903	873	-	1500	1451	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.13	6.53	6.23	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.527	4.027	3.327	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 26	~ 39	182	~ 24	38	360	495	-	-	781	-	-
Stage 1	168	202	-	350	372	-	-	-	-	-	-	-
Stage 2	335	370	-	151	195	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 15	~ 37	182	-	36	359	495	-	-	780	-	-
Mov Cap-2 Maneuver	~ 15	~ 37	-	-	36	-	-	-	-	-	-	-
Stage 1	166	193	-	345	367	-	-	-	-	-	-	-
Stage 2	250	365	-	58	186	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, \$ 1448.7			0.1	0.2
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	495	-	-	43	-	780	-
HCM Lane V/C Ratio	0.011	-	-	3.789	-	0.043	-
HCM Control Delay (s)	12.4	-	-	\$ 1448.7	-	9.8	-
HCM Lane LOS	B	-	-	F	-	A	-
HCM 95th %tile Q(veh)	0	-	-	18.3	-	0.1	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Meridian Avenue
Baseline (2035) Weekday PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	40	95	5	180	25	570	30	465	790	50
Future Volume (veh/h)	20	5	40	95	5	180	25	570	30	465	790	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	5	43	102	5	194	27	613	32	500	849	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	2	2	2
Cap, veh/h	90	34	134	121	9	162	35	1446	75	536	1221	78
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.42	0.42	0.30	0.70	0.70
Sat Flow, veh/h	311	208	828	499	56	1005	1781	3435	179	1781	1740	111
Grp Volume(v), veh/h	70	0	0	301	0	0	27	317	328	500	0	903
Grp Sat Flow(s),veh/h/ln	1347	0	0	1559	0	0	1781	1777	1838	1781	0	1850
Q Serve(g_s), s	0.0	0.0	0.0	14.8	0.0	0.0	1.8	15.1	15.1	32.7	0.0	34.1
Cycle Q Clear(g_c), s	4.6	0.0	0.0	19.4	0.0	0.0	1.8	15.1	15.1	32.7	0.0	34.1
Prop In Lane	0.31		0.61	0.34		0.64	1.00		0.10	1.00		0.06
Lane Grp Cap(c), veh/h	257	0	0	292	0	0	35	748	773	536	0	1299
V/C Ratio(X)	0.27	0.00	0.00	1.03	0.00	0.00	0.77	0.42	0.42	0.93	0.00	0.70
Avail Cap(c_a), veh/h	257	0	0	292	0	0	67	748	773	702	0	1299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	0.0	0.0	51.4	0.0	0.0	58.5	24.5	24.5	40.8	0.0	10.4
Incr Delay (d2), s/veh	0.6	0.0	0.0	60.6	0.0	0.0	28.5	1.8	1.7	16.6	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	13.7	0.0	0.0	1.1	6.6	6.8	16.5	0.0	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	0.0	0.0	111.9	0.0	0.0	87.0	26.2	26.2	57.4	0.0	13.5
LnGrp LOS	D	A	A	F	A	A	F	C	C	E	A	B
Approach Vol, veh/h	70				301				672			
Approach Delay, s/veh	44.6				111.9				28.7			
Approach LOS	D				F				C			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	89.1		24.0	40.6	55.4		24.0				
Change Period (Y+Rc), s	4.5	4.9		4.6	4.5	4.9		4.6				
Max Green Setting (Gmax), s	4.5	82.1		19.4	47.3	39.3		19.4				
Max Q Clear Time (g_c+I1), s	3.8	36.1		21.4	34.7	17.1		6.6				
Green Ext Time (p_c), s	0.0	8.7		0.0	1.4	3.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	39.6											
HCM 6th LOS	D											

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	620	5	10	925	5	10
Future Vol, veh/h	620	5	10	925	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	984	8	16	1468	8	16

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	992	0	2488
Stage 1	-	-	-	-	988
Stage 2	-	-	-	-	1500
Critical Hdwy	-	-	4.145	-	6.6
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2285	-	3.5
Pot Cap-1 Maneuver	-	-	690	-	29
Stage 1	-	-	-	-	326
Stage 2	-	-	-	-	206
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	690	-	25
Mov Cap-2 Maneuver	-	-	-	-	25
Stage 1	-	-	-	-	326
Stage 2	-	-	-	-	180

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	84.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	68	-	-	690	-
HCM Lane V/C Ratio	0.35	-	-	0.023	-
HCM Control Delay (s)	84.1	-	-	10.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	5	620	0	0	930
Future Vol, veh/h	0	5	620	0	0	930
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	0	5	660	0	0	989
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1649	660	0	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	989	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	110	467	-	0	0	-
Stage 1	518	-	-	0	0	-
Stage 2	363	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	110	467	-	-	-	-
Mov Cap-2 Maneuver	110	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	12.8	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBTWBLn1		SBT			
Capacity (veh/h)	- 467		-			
HCM Lane V/C Ratio	- 0.011		-			
HCM Control Delay (s)	- 12.8		-			
HCM Lane LOS	- B		-			
HCM 95th %tile Q(veh)	- 0		-			

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	20	15	0	10	10	605	35	5	920	5
Future Vol, veh/h	5	0	20	15	0	10	10	605	35	5	920	5
Conflicting Peds, #/hr	3	0	3	0	0	0	3	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	0	-	-	30	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	3	3	3
Mvmt Flow	5	0	21	16	0	11	11	637	37	5	968	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1670	1680	977	1672	1664	659	976	0	0	674	0	0
Stage 1	984	984	-	678	678	-	-	-	-	-	-	-
Stage 2	686	696	-	994	986	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.227	-	-
Pot Cap-1 Maneuver	77	96	307	77	98	467	711	-	-	912	-	-
Stage 1	302	329	-	445	455	-	-	-	-	-	-	-
Stage 2	441	446	-	298	328	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	74	94	305	70	96	466	709	-	-	912	-	-
Mov Cap-2 Maneuver	74	94	-	70	96	-	-	-	-	-	-	-
Stage 1	297	327	-	438	448	-	-	-	-	-	-	-
Stage 2	423	439	-	275	326	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	25.6		47.6		0.2		0	
HCM LOS	D		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	709	-	-	74	305	70	466	912	-	-
HCM Lane V/C Ratio	0.015	-	-	0.071	0.069	0.226	0.023	0.006	-	-
HCM Control Delay (s)	10.2	-	-	57.3	17.7	70.8	12.9	9	-	-
HCM Lane LOS	B	-	-	F	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0.8	0.1	0	-	-

Appendix E: Future (2035) Build Conditions – Alternative A

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	5	5	1575	610	15
Future Vol, veh/h	25	5	5	1575	610	15
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	175	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	6	6
Mvmt Flow	27	5	5	1676	649	16

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1507	335	666	0	-	0
Stage 1	658	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	114	667	899	-	-	-
Stage 1	482	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	666	898	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	385	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	19.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	898	-	275	-	-
HCM Lane V/C Ratio	0.006	-	0.116	-	-
HCM Control Delay (s/veh)	9	-	19.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q (veh)	0	-	0.4	-	-

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/20th St E - AM Peak Hour - Future 2035 Baseline (Site Folder: General)]**

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	5.0	1	5.0	0.696	13.6	LOS B	6.4	166.3	0.54	0.51	0.54	36.9
3	L2	60	5.0	65	5.0	0.696	11.1	LOS B	6.4	166.3	0.54	0.51	0.54	36.0
8	T1	1400	5.0	1522	5.0	0.696	5.2	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
18	R2	65	5.0	71	5.0	0.696	5.3	LOS A	6.4	166.8	0.53	0.49	0.53	34.9
Approach		1526	5.0	1659	5.0	0.696	5.5	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
East: 20th St E														
1u	U	1	3.0	1	3.0	0.418	19.6	LOS B	2.0	51.6	0.80	0.96	0.95	33.7
1	L2	80	3.0	87	3.0	0.418	17.1	LOS B	2.0	51.6	0.80	0.96	0.95	32.9
6	T1	10	3.0	11	3.0	0.418	11.3	LOS B	2.0	51.6	0.80	0.96	0.95	32.8
16	R2	85	3.0	92	3.0	0.418	11.1	LOS B	2.0	51.6	0.80	0.96	0.95	31.9
Approach		176	3.0	191	3.0	0.418	13.9	LOS B	2.0	51.6	0.80	0.96	0.95	32.4
North: Meridian Ave E														
7u	U	1	6.0	1	6.0	0.296	13.2	LOS B	1.5	39.8	0.36	0.47	0.36	37.7
7	L2	15	6.0	16	6.0	0.296	10.7	LOS B	1.5	39.8	0.36	0.47	0.36	36.7
4	T1	545	6.0	592	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.47	0.35	36.7
14	R2	60	6.0	65	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.46	0.35	35.5
Approach		621	6.0	675	6.0	0.296	5.0	LOS A	1.5	40.0	0.35	0.47	0.35	36.6
West: 20th St E														
5u	U	1	0.0	1	0.0	0.195	14.5	LOS B	0.7	17.8	0.51	0.78	0.51	35.9
5	L2	90	0.0	98	0.0	0.195	12.0	LOS B	0.7	17.8	0.51	0.78	0.51	35.0
2	T1	10	0.0	11	0.0	0.195	6.2	LOS A	0.7	17.8	0.51	0.78	0.51	34.9
12	R2	45	0.0	49	0.0	0.195	6.1	LOS A	0.7	17.8	0.51	0.78	0.51	33.9
Approach		146	0.0	159	0.0	0.195	9.8	LOS A	0.7	17.8	0.51	0.78	0.51	34.7
All Vehicles		2469	4.8	2684	4.8	0.696	6.2	LOS A	6.4	166.8	0.51	0.54	0.52	35.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	1515	5	10	660
Future Vol, veh/h	5	10	1515	5	10	660
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	5	11	1612	5	11	702
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1990	811	0	0	1618	0
Stage 1	1616	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24	-
Pot Cap-1 Maneuver	54	327	-	-	390	-
Stage 1	151	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	326	-	-	390	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	151	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	23.4	0		0.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	212	390	-	
HCM Lane V/C Ratio	-	-	0.075	0.027	-	
HCM Control Delay (s/veh)	-	-	23.4	14.5	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q (veh)	-	-	0.2	0.1	-	

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue

With Project (2035) Weekday AM Peak Hour - Option A

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Future Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	226	91	140	108	177	129	124	1285	38	59	565	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	4	4	4
Cap, veh/h	225	134	207	83	124	90	148	1918	57	76	1600	212
Arrive On Green	0.13	0.21	0.21	0.05	0.13	0.13	0.09	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1739	647	996	1739	980	714	1739	3440	102	1753	3104	411
Grp Volume(v), veh/h	226	0	231	108	0	306	124	647	676	59	318	322
Grp Sat Flow(s),veh/h/ln	1739	0	1643	1739	0	1693	1739	1735	1807	1753	1749	1766
Q Serve(g_s), s	16.8	0.0	16.8	6.2	0.0	16.4	9.1	34.3	34.3	4.3	14.0	14.1
Cycle Q Clear(g_c), s	16.8	0.0	16.8	6.2	0.0	16.4	9.1	34.3	34.3	4.3	14.0	14.1
Prop In Lane	1.00		0.61	1.00		0.42	1.00		0.06	1.00		0.23
Lane Grp Cap(c), veh/h	225	0	341	83	0	214	148	967	1008	76	901	910
V/C Ratio(X)	1.01	0.00	0.68	1.30	0.00	1.43	0.84	0.67	0.67	0.78	0.35	0.35
Avail Cap(c_a), veh/h	225	0	341	83	0	214	198	967	1008	165	901	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.6	0.0	47.5	61.9	0.0	56.8	58.6	20.3	20.3	61.6	18.6	18.7
Incr Delay (d2), s/veh	61.5	0.0	5.3	199.7	0.0	219.3	20.1	3.7	3.5	15.6	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	7.4	7.3	0.0	20.0	4.8	14.3	14.9	2.2	5.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	118.1	0.0	52.7	261.6	0.0	276.1	78.7	24.0	23.9	77.2	19.7	19.7
LnGrp LOS	F		D	F		F	E	C	C	E	B	B
Approach Vol, veh/h	457		414			1447			699			
Approach Delay, s/veh	85.1		272.3			28.6			24.6			
Approach LOS	F		F			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	71.9	21.4	21.0	10.2	77.4	10.8	31.6				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+I1), s	11.1	16.1	18.8	18.4	6.3	36.3	8.2	18.8				
Green Ext Time (p_c), s	0.1	4.3	0.0	0.0	0.0	10.8	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			69.7									
HCM 6th LOS			E									

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕				↕		↕	↕	
Traffic Vol, veh/h	5	0	5	5	0	25	5	1315	5	10	770	10
Future Vol, veh/h	5	0	5	5	0	25	5	1315	5	10	770	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	11	11	23	23	23	5	5	5	5	5	5
Mvmt Flow	5	0	5	5	0	26	5	1384	5	11	811	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1541	2238	411	1825	-	695	822	0	0	1389	0	0
Stage 1	839	839	-	1397	-	-	-	-	-	-	-	-
Stage 2	702	1399	-	428	-	-	-	-	-	-	-	-
Critical Hdwy	7.72	6.72	7.12	7.96	-	7.36	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.72	5.72	-	6.96	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.72	5.72	-	6.96	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.61	4.11	3.41	3.73	-	3.53	2.25	-	-	2.25	-	-
Pot Cap-1 Maneuver	72	37	565	38	0	340	784	-	-	473	-	-
Stage 1	308	359	-	123	0	-	-	-	-	-	-	-
Stage 2	375	190	-	522	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	64	35	565	36	-	340	784	-	-	473	-	-
Mov Cap-2 Maneuver	64	35	-	36	-	-	-	-	-	-	-	-
Stage 1	299	351	-	120	-	-	-	-	-	-	-	-
Stage 2	336	185	-	505	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s/v	39.4		37.8		0		0.2	
HCM LOS	E		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	784	-	-	115 141	473	-	-
HCM Lane V/C Ratio	0.007	-	-	0.092 0.224	0.022	-	-
HCM Control Delay (s/veh)	9.6	-	-	39.4 37.8	12.8	-	-
HCM Lane LOS	A	-	-	E E	B	-	-
HCM 95th %tile Q (veh)	0	-	-	0.3 0.8	0.1	-	-

HCM 6th Signalized Intersection Summary

6: SR-161 & 32nd St. E.

Meridian Avenue
With Project (2035) Weekday AM Peak Hour - Option A

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	50	10	20	45	15	70	1320	40	70	695	20
Future Volume (veh/h)	35	50	10	20	45	15	70	1320	40	70	695	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1707	1707	1707	1841	1841	1841	1826	1826	1826
Adj Flow Rate, veh/h	36	52	10	21	47	16	73	1375	42	73	724	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	4	4	4	13	13	13	4	4	4	5	5	5
Cap, veh/h	135	127	24	136	103	35	94	2516	77	94	2501	73
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.05	0.73	0.73	0.05	0.73	0.73
Sat Flow, veh/h	1318	1500	289	1223	1218	415	1753	3465	106	1739	3443	100
Grp Volume(v), veh/h	36	0	62	21	0	63	73	693	724	73	365	380
Grp Sat Flow(s),veh/h/ln	1318	0	1789	1223	0	1633	1753	1749	1822	1739	1735	1808
Q Serve(g_s), s	2.7	0.0	3.3	1.7	0.0	3.7	4.1	18.0	18.0	4.1	7.3	7.3
Cycle Q Clear(g_c), s	6.3	0.0	3.3	4.9	0.0	3.7	4.1	18.0	18.0	4.1	7.3	7.3
Prop In Lane	1.00		0.16	1.00		0.25	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	135	0	152	136	0	139	94	1270	1323	94	1260	1314
V/C Ratio(X)	0.27	0.00	0.41	0.15	0.00	0.45	0.78	0.55	0.55	0.78	0.29	0.29
Avail Cap(c_a), veh/h	241	0	295	234	0	269	191	1270	1323	190	1260	1314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	0.0	43.4	45.7	0.0	43.6	46.7	6.2	6.2	46.7	4.7	4.7
Incr Delay (d2), s/veh	1.0	0.0	1.8	0.5	0.0	2.3	12.9	1.7	1.6	13.0	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.5	0.5	0.0	1.6	2.1	5.8	6.0	2.1	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.6	0.0	45.1	46.2	0.0	45.9	59.6	7.9	7.8	59.8	5.3	5.3
LnGrp LOS	D		D	D		D	E	A	A	E	A	A
Approach Vol, veh/h	98			84			1490			818		
Approach Delay, s/veh	46.0			46.0			10.4			10.2		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	77.1		13.0	9.9	77.2		13.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.9	59.1		16.5	10.9	59.1		16.5				
Max Q Clear Time (g_c+I1), s	6.1	20.0		8.3	6.1	9.3		6.9				
Green Ext Time (p_c), s	0.0	13.2		0.2	0.0	5.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	12.9											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Meridian Avenue

With Project (2035) Weekday AM Peak Hour - Option A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	45	80	0	305	35	1070	100	105	595	25
Future Volume (veh/h)	50	0	45	80	0	305	35	1070	100	105	595	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1752	1826	1826	1826	1826	1826	1826	1811	1811	1811
Adj Flow Rate, veh/h	54	0	48	86	0	328	38	1151	108	113	640	27
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	10	10	10	5	5	5	5	5	5	6	6	6
Cap, veh/h	113	0	364	363	0	379	47	1726	162	141	1994	84
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.03	0.54	0.54	0.08	0.59	0.59
Sat Flow, veh/h	985	0	1485	1325	0	1547	1739	3206	300	1725	3364	142
Grp Volume(v), veh/h	54	0	48	86	0	328	38	622	637	113	327	340
Grp Sat Flow(s), veh/h/ln	985	0	1485	1325	0	1547	1739	1735	1772	1725	1721	1786
Q Serve(g_s), s	4.2	0.0	2.5	5.4	0.0	20.3	2.2	25.8	25.9	6.4	9.6	9.6
Cycle Q Clear(g_c), s	24.5	0.0	2.5	7.9	0.0	20.3	2.2	25.8	25.9	6.4	9.6	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.08
Lane Grp Cap(c), veh/h	113	0	364	363	0	379	47	934	954	141	1020	1058
V/C Ratio(X)	0.48	0.00	0.13	0.24	0.00	0.87	0.80	0.67	0.67	0.80	0.32	0.32
Avail Cap(c_a), veh/h	113	0	364	363	0	379	123	934	954	216	1020	1058
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	0.0	29.5	32.6	0.0	36.2	48.4	16.6	16.6	45.1	10.2	10.2
Incr Delay (d2), s/veh	3.1	0.0	0.2	0.3	0.0	18.4	25.7	3.7	3.7	11.7	0.8	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.0	0.9	1.7	0.0	9.4	1.3	10.4	10.6	3.2	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.5	0.0	29.6	32.9	0.0	54.6	74.0	20.4	20.3	56.9	11.1	11.0
LnGrp LOS	D		C	C		D	E	C	C	E	B	B
Approach Vol, veh/h	102			414			1297			780		
Approach Delay, s/veh	41.2			50.1			21.9			17.7		
Approach LOS	D			D			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	63.8		29.0	12.7	58.3		29.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	54.9			24.5	12.5	49.5		24.5				
Max Q Clear Time (g_c+I), s	11.6			22.3	8.4	27.9		26.5				
Green Ext Time (p_c), s	0.0	4.5		0.5	0.1	8.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				25.9								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	1195	5	5	725	5	10
Future Vol, veh/h	1195	5	5	725	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	5	6	6	7	7
Mvmt Flow	1285	5	5	780	5	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1290	0	2078
Stage 1	-	-	-	-	1288
Stage 2	-	-	-	-	790
Critical Hdwy	-	-	4.19	-	6.705
Critical Hdwy Stg 1	-	-	-	-	5.905
Critical Hdwy Stg 2	-	-	-	-	5.505
Follow-up Hdwy	-	-	2.257	-	3.5665
Pot Cap-1 Maneuver	-	-	518	-	50
Stage 1	-	-	-	-	216
Stage 2	-	-	-	-	435
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	518	-	49
Mov Cap-2 Maneuver	-	-	-	-	49
Stage 1	-	-	-	-	216
Stage 2	-	-	-	-	428

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.1	40.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	118	-	-	518	-
HCM Lane V/C Ratio	0.137	-	-	0.01	-
HCM Control Delay (s/veh)	40.3	-	-	12	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q (veh)	0.5	-	-	0	-

HCM 6th Signalized Intersection Summary

9: SR 161 & Dechaux Rd E

Meridian Avenue
With Project (2035) Weekday AM Peak Hour - Option A

						
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	1220	0	0	725	5	5
Future Volume (veh/h)	1220	0	0	725	5	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1811	1811	1900	1900
Adj Flow Rate, veh/h	1356	0	0	806	6	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	6	6	0	0
Cap, veh/h	2989	0	0	1548	22	19
Arrive On Green	0.85	0.00	0.00	0.85	0.01	0.01
Sat Flow, veh/h	3681	0	0	1811	1810	1610
Grp Volume(v), veh/h	1356	0	0	806	6	6
Grp Sat Flow(s),veh/h/ln	1749	0	0	1811	1810	1610
Q Serve(g_s), s	5.5	0.0	0.0	7.0	0.2	0.2
Cycle Q Clear(g_c), s	5.5	0.0	0.0	7.0	0.2	0.2
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	2989	0	0	1548	22	19
V/C Ratio(X)	0.45	0.00	0.00	0.52	0.27	0.31
Avail Cap(c_a), veh/h	2989	0	0	1548	483	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.0	0.0	0.0	1.1	29.4	29.4
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.3	6.6	8.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.5	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.5	0.0	0.0	2.4	36.0	38.1
LnGrp LOS	A			A	D	D
Approach Vol, veh/h	1356			806	12	
Approach Delay, s/veh	1.5			2.4	37.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	55.3				55.3	4.7
Change Period (Y+Rc), s	4.0				4.0	4.0
Max Green Setting (Gmax), s	36.0				36.0	16.0
Max Q Clear Time (g_c+I1), s	7.5				9.0	2.2
Green Ext Time (p_c), s	12.6				6.8	0.0
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			2.1			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

10: Spencer St N & SR 161

Meridian Avenue
With Project (2035) Weekday AM Peak Hour - Option A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	15	25	0	10	80	1210	25	10	710	5
Future Volume (veh/h)	0	0	15	25	0	10	80	1210	25	10	710	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1707	1707	1707	1841	1841	1841	1826	1826	1826
Adj Flow Rate, veh/h	0	0	16	27	0	11	87	1315	27	11	772	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	13	13	13	4	4	4	5	5	5
Cap, veh/h	111	0	62	148	0	56	583	1479	30	246	1491	10
Arrive On Green	0.00	0.00	0.04	0.04	0.00	0.04	0.82	0.82	0.82	0.82	0.82	0.82
Sat Flow, veh/h	1426	0	1610	1275	0	1447	683	1797	37	397	1812	12
Grp Volume(v), veh/h	0	0	16	27	0	11	87	0	1342	11	0	777
Grp Sat Flow(s),veh/h/ln	1426	0	1610	1275	0	1447	683	0	1834	397	0	1824
Q Serve(g_s), s	0.0	0.0	0.6	1.4	0.0	0.5	2.9	0.0	31.4	1.2	0.0	8.6
Cycle Q Clear(g_c), s	0.0	0.0	0.6	2.0	0.0	0.5	11.5	0.0	31.4	32.6	0.0	8.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	111	0	62	148	0	56	583	0	1509	246	0	1501
V/C Ratio(X)	0.00	0.00	0.26	0.18	0.00	0.20	0.15	0.00	0.89	0.04	0.00	0.52
Avail Cap(c_a), veh/h	406	0	396	412	0	356	583	0	1509	246	0	1501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	30.3	31.3	0.0	30.3	3.6	0.0	3.8	14.6	0.0	1.8
Incr Delay (d2), s/veh	0.0	0.0	2.1	0.6	0.0	1.7	0.5	0.0	8.2	0.3	0.0	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	0.4	0.0	0.2	0.4	0.0	5.1	0.1	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	32.5	31.9	0.0	31.9	4.1	0.0	12.0	14.9	0.0	3.1
LnGrp LOS	C			C	C			A	B		B	A
Approach Vol, veh/h	16			38			1429			788		
Approach Delay, s/veh	32.5			31.9			11.5			3.2		
Approach LOS	C			C			B			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	58.0			7.0			58.0			7.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	40.0			16.0			40.0			16.0		
Max Q Clear Time (g_c+I1), s	33.4			2.6			34.6			4.0		
Green Ext Time (p_c), s	5.5			0.0			2.6			0.1		
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	9.1											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	5	905	1535	30
Future Vol, veh/h	10	10	5	905	1535	30
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	175	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	6	2	2	2	2
Mvmt Flow	11	11	6	1006	1706	33

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2242	874	1741	0	-	0
Stage 1	1725	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.14	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.22	-	-	-
Pot Cap-1 Maneuver	34	285	357	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	284	356	-	-	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	122	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	33.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	356	-	147	-	-
HCM Lane V/C Ratio	0.016	-	0.151	-	-
HCM Control Delay (s/veh)	15.3	-	33.8	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q (veh)	0	-	0.5	-	-

MOVEMENT SUMMARY

 Site: 101 [Meridian Ave E/20th St E - PM Peak Hour - Future
2035 Baseline (Site Folder: General)]

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	2.0	1	2.0	0.427	13.4	LOS B	2.5	62.4	0.41	0.50	0.41	37.4
3	L2	50	2.0	54	2.0	0.427	10.9	LOS B	2.5	62.4	0.41	0.50	0.41	36.5
8	T1	775	2.0	842	2.0	0.427	5.0	LOS A	2.5	62.8	0.41	0.50	0.41	36.5
18	R2	100	2.0	109	2.0	0.427	5.1	LOS A	2.5	62.8	0.41	0.49	0.41	35.4
Approach		926	2.0	1007	2.0	0.427	5.4	LOS A	2.5	62.8	0.41	0.49	0.41	36.4
East: 20th St E														
1u	U	1	1.0	1	1.0	0.208	15.2	LOS B	0.8	20.0	0.59	0.83	0.59	35.9
1	L2	70	1.0	76	1.0	0.208	12.7	LOS B	0.8	20.0	0.59	0.83	0.59	35.0
6	T1	5	1.0	5	1.0	0.208	6.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.9
16	R2	60	1.0	65	1.0	0.208	6.8	LOS A	0.8	20.0	0.59	0.83	0.59	33.8
Approach		136	1.0	148	1.0	0.208	9.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.5
North: Meridian Ave E														
7u	U	1	2.0	1	2.0	0.689	13.5	LOS B	6.1	153.9	0.53	0.52	0.53	37.0
7	L2	95	2.0	103	2.0	0.689	11.0	LOS B	6.1	153.9	0.53	0.52	0.53	36.0
4	T1	1355	2.0	1473	2.0	0.689	5.2	LOS A	6.1	154.4	0.53	0.51	0.53	36.1
14	R2	100	2.0	109	2.0	0.689	5.2	LOS A	6.1	154.4	0.52	0.49	0.52	35.0
Approach		1551	2.0	1686	2.0	0.689	5.6	LOS A	6.1	154.4	0.53	0.51	0.53	36.0
West: 20th St E														
5u	U	1	0.0	1	0.0	0.330	18.0	LOS B	1.5	37.5	0.76	0.92	0.83	34.6
5	L2	70	0.0	76	0.0	0.330	15.5	LOS B	1.5	37.5	0.76	0.92	0.83	33.7
2	T1	10	0.0	11	0.0	0.330	9.7	LOS A	1.5	37.5	0.76	0.92	0.83	33.6
12	R2	70	0.0	76	0.0	0.330	9.6	LOS A	1.5	37.5	0.76	0.92	0.83	32.6
Approach		151	0.0	164	0.0	0.330	12.4	LOS B	1.5	37.5	0.76	0.92	0.83	33.2
All Vehicles		2764	1.8	3004	1.8	0.689	6.1	LOS A	6.1	154.4	0.50	0.54	0.51	35.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	835	5	20	1465
Future Vol, veh/h	5	15	835	5	20	1465
Conflicting Peds, #/hr	9	10	0	9	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	6	17	949	6	23	1665

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1850	498	0
Stage 1	962	-	-
Stage 2	888	-	-
Critical Hdwy	6.8	6.9	-
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	67	523	-
Stage 1	336	-	-
Stage 2	367	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	64	515	-
Mov Cap-2 Maneuver	185	-	-
Stage 1	333	-	-
Stage 2	352	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	697
HCM Lane V/C Ratio	-	-	0.064	0.033
HCM Control Delay (s/veh)	-	-	15.8	10.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q (veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue

With Project (2035) Weekday PM Peak Hour - Option A

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	120	135	40	140	50	140	630	50	115	1110	255
Future Volume (veh/h)	170	120	135	40	140	50	140	630	50	115	1110	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	189	133	150	44	156	56	156	700	56	128	1233	283
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	3	3	3
Cap, veh/h	214	167	188	65	165	59	181	1742	139	152	1447	328
Arrive On Green	0.12	0.21	0.21	0.04	0.13	0.13	0.10	0.52	0.52	0.09	0.51	0.51
Sat Flow, veh/h	1767	793	895	1781	1310	470	1781	3332	266	1767	2852	647
Grp Volume(v), veh/h	189	0	283	44	0	212	156	373	383	128	756	760
Grp Sat Flow(s),veh/h/ln	1767	0	1688	1781	0	1780	1781	1777	1821	1767	1763	1736
Q Serve(g_s), s	13.7	0.0	20.7	3.2	0.0	15.4	11.2	16.5	16.5	9.3	48.1	49.9
Cycle Q Clear(g_c), s	13.7	0.0	20.7	3.2	0.0	15.4	11.2	16.5	16.5	9.3	48.1	49.9
Prop In Lane	1.00		0.53	1.00		0.26	1.00		0.15	1.00		0.37
Lane Grp Cap(c), veh/h	214	0	355	65	0	225	181	929	952	152	894	881
V/C Ratio(X)	0.88	0.00	0.80	0.67	0.00	0.94	0.86	0.40	0.40	0.84	0.85	0.86
Avail Cap(c_a), veh/h	228	0	355	85	0	225	203	929	952	166	894	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	0.0	48.7	61.8	0.0	56.3	57.5	18.7	18.7	58.5	27.6	28.1
Incr Delay (d2), s/veh	29.8	0.0	12.0	12.7	0.0	44.5	27.4	1.3	1.3	28.7	9.7	10.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	9.8	1.7	0.0	9.6	6.4	7.0	7.2	5.3	21.8	22.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	86.1	0.0	60.7	74.5	0.0	100.9	84.8	20.0	20.0	87.3	37.3	39.0
LnGrp LOS	F		E	E		F	F	C	B	F	D	D
Approach Vol, veh/h		472			256			912			1644	
Approach Delay, s/veh		70.8			96.3			31.1			42.0	
Approach LOS		E			F			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.8	70.9	20.3	21.0	15.8	72.9	9.4	32.0				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+I1), s	13.2	51.9	15.7	17.4	11.3	18.5	5.2	22.7				
Green Ext Time (p_c), s	0.1	7.5	0.1	0.0	0.0	5.3	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			47.3									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕				↕		↕	↕	
Traffic Vol, veh/h	10	0	5	5	0	10	5	820	10	20	1240	20
Future Vol, veh/h	10	0	5	5	0	10	5	820	10	20	1240	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	-	170	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	2	2	2
Mvmt Flow	11	0	6	6	0	11	6	921	11	22	1393	22

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1921	2392	708	1680	-	466	1415	0	0	932	0	0
Stage 1	1448	1448	-	939	-	-	-	-	-	-	-	-
Stage 2	473	944	-	741	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	-	6.9	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	-	3.3	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	42	34	382	63	0	549	478	-	-	730	-	-
Stage 1	140	198	-	288	0	-	-	-	-	-	-	-
Stage 2	546	344	-	379	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	39	32	382	59	-	549	478	-	-	730	-	-
Mov Cap-2 Maneuver	39	32	-	59	-	-	-	-	-	-	-	-
Stage 1	136	192	-	281	-	-	-	-	-	-	-	-
Stage 2	521	335	-	362	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	94.9	32.9	0.1	0.2
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	478	-	-	56 146	730	-	-
HCM Lane V/C Ratio	0.012	-	-	0.301 0.115	0.031	-	-
HCM Control Delay (s/veh)	12.6	-	-	94.9 32.9	10.1	-	-
HCM Lane LOS	B	-	-	F D	B	-	-
HCM 95th %tile Q (veh)	0	-	-	1.1 0.4	0.1	-	-

HCM 6th Signalized Intersection Summary

6: SR-161 & 32nd St. E.

Meridian Avenue
With Project (2035) Weekday PM Peak Hour - Option A

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	50	70	30	10	70	5	740	25	30	1195	35
Future Volume (veh/h)	25	50	70	30	10	70	5	740	25	30	1195	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	56	79	34	11	79	6	831	28	34	1343	39
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	3	3	3	2	2	2	2	2	2
Cap, veh/h	169	89	126	135	24	175	11	2509	85	44	2585	75
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.72	0.72	0.02	0.73	0.73
Sat Flow, veh/h	1323	712	1004	1243	195	1400	1781	3508	118	1781	3524	102
Grp Volume(v), veh/h	28	0	135	34	0	90	6	421	438	34	676	706
Grp Sat Flow(s),veh/h/ln	1323	0	1716	1243	0	1595	1781	1777	1849	1781	1777	1849
Q Serve(g_s), s	2.0	0.0	7.5	2.7	0.0	5.2	0.3	8.8	8.8	1.9	16.4	16.4
Cycle Q Clear(g_c), s	7.2	0.0	7.5	10.1	0.0	5.2	0.3	8.8	8.8	1.9	16.4	16.4
Prop In Lane	1.00		0.59	1.00		0.88	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	169	0	215	135	0	200	11	1271	1322	44	1303	1357
V/C Ratio(X)	0.17	0.00	0.63	0.25	0.00	0.45	0.55	0.33	0.33	0.78	0.52	0.52
Avail Cap(c_a), veh/h	248	0	318	209	0	295	80	1271	1322	134	1303	1357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	41.5	46.3	0.0	40.5	49.6	5.3	5.3	48.5	5.7	5.7
Incr Delay (d2), s/veh	0.5	0.0	3.0	1.0	0.0	1.6	36.6	0.7	0.7	25.3	1.5	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	3.3	0.8	0.0	2.1	0.3	2.9	3.0	1.1	5.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.4	0.0	44.5	47.3	0.0	42.1	86.2	6.0	6.0	73.8	7.2	7.2
LnGrp LOS	D		D	D		D	F	A	A	E	A	A
Approach Vol, veh/h	163			124			865			1416		
Approach Delay, s/veh	44.5			43.5			6.6			8.8		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	76.0		17.0	5.1	77.9		17.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.5	60.5		18.5	4.5	63.5		18.5				
Max Q Clear Time (g_c+I1), s	3.9	10.8		9.5	2.3	18.4		12.1				
Green Ext Time (p_c), s	0.0	6.2		0.5	0.0	13.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	12.0											
HCM 6th LOS	B											

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Meridian Avenue

With Project (2035) Weekday PM Peak Hour - Option A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	40	95	5	180	25	570	30	465	790	50
Future Volume (veh/h)	20	5	40	95	5	180	25	570	30	465	790	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	5	43	102	5	194	27	613	32	500	849	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	2	2	2
Cap, veh/h	117	26	224	251	6	246	38	1373	72	544	2320	148
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.40	0.40	0.31	0.68	0.68
Sat Flow, veh/h	1164	163	1399	1344	40	1536	1781	3435	179	1781	3392	216
Grp Volume(v), veh/h	22	0	48	102	0	199	27	317	328	500	445	458
Grp Sat Flow(s), veh/h/ln	1164	0	1561	1344	0	1576	1781	1777	1838	1781	1777	1831
Q Serve(g_s), s	1.9	0.0	2.7	7.1	0.0	12.1	1.5	13.0	13.1	27.1	10.6	10.6
Cycle Q Clear(g_c), s	14.0	0.0	2.7	9.8	0.0	12.1	1.5	13.0	13.1	27.1	10.6	10.6
Prop In Lane	1.00		0.90	1.00		0.97	1.00		0.10	1.00		0.12
Lane Grp Cap(c), veh/h	117	0	250	251	0	252	38	710	735	544	1215	1252
V/C Ratio(X)	0.19	0.00	0.19	0.41	0.00	0.79	0.72	0.45	0.45	0.92	0.37	0.37
Avail Cap(c_a), veh/h	118	0	251	253	0	254	109	710	735	768	1215	1252
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	36.4	40.6	0.0	40.4	48.6	21.9	21.9	33.6	6.7	6.7
Incr Delay (d2), s/veh	0.8	0.0	0.4	1.1	0.0	15.3	22.4	2.0	2.0	12.7	0.9	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.0	2.4	0.0	5.7	0.9	5.6	5.8	13.2	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.9	0.0	36.8	41.7	0.0	55.7	71.1	23.9	23.9	46.3	7.5	7.5
LnGrp LOS	D		D	D		E	E	C	C	D	A	A
Approach Vol, veh/h	70			301			672			1403		
Approach Delay, s/veh	40.3			50.9			25.8			21.3		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	72.9		20.5	35.0	44.5		20.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	64.3			16.1	43.1	27.3		16.1				
Max Q Clear Time (g_c+I), s	13.5	12.6		14.1	29.1	15.1		16.0				
Green Ext Time (p_c), s	0.0	6.7		0.3	1.4	3.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	26.7											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑	↑	
Traffic Vol, veh/h	620	5	10	925	5	10
Future Vol, veh/h	620	5	10	925	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	984	8	16	1468	8	16

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	992	0	2488
Stage 1	-	-	-	-	988
Stage 2	-	-	-	-	1500
Critical Hdwy	-	-	4.145	-	6.6
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2285	-	3.5
Pot Cap-1 Maneuver	-	-	690	-	29
Stage 1	-	-	-	-	326
Stage 2	-	-	-	-	206
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	690	-	25
Mov Cap-2 Maneuver	-	-	-	-	25
Stage 1	-	-	-	-	326
Stage 2	-	-	-	-	180

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.1	84.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	68	-	-	690	-
HCM Lane V/C Ratio	0.35	-	-	0.023	-
HCM Control Delay (s/veh)	84.1	-	-	10.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q (veh)	1.3	-	-	0.1	-

HCM 6th Signalized Intersection Summary

9: SR 161 & Dechaux Rd E

Meridian Avenue
With Project (2035) Weekday PM Peak Hour - Option A

						
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	620	0	0	930	0	5
Future Volume (veh/h)	620	0	0	930	0	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1856	1856	1900	1900
Adj Flow Rate, veh/h	660	0	0	989	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	3	3	0	0
Cap, veh/h	3097	0	0	1617	10	9
Arrive On Green	0.87	0.00	0.00	0.87	0.00	0.01
Sat Flow, veh/h	3741	0	0	1856	1810	1610
Grp Volume(v), veh/h	660	0	0	989	0	5
Grp Sat Flow(s),veh/h/ln	1777	0	0	1856	1810	1610
Q Serve(g_s), s	1.9	0.0	0.0	9.5	0.0	0.2
Cycle Q Clear(g_c), s	1.9	0.0	0.0	9.5	0.0	0.2
Prop In Lane		0.00	0.00		1.00	1.00
Lane Grp Cap(c), veh/h	3097	0	0	1617	10	9
V/C Ratio(X)	0.21	0.00	0.00	0.61	0.00	0.58
Avail Cap(c_a), veh/h	3097	0	0	1617	445	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.7	0.0	0.0	1.1	0.0	32.3
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.7	0.0	50.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.8	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.8	0.0	0.0	2.9	0.0	82.6
LnGrp LOS	A			A		F
Approach Vol, veh/h	660			989	5	
Approach Delay, s/veh	0.8			2.9	82.6	
Approach LOS	A			A	F	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	60.7		60.7		4.3	
Change Period (Y+Rc), s	4.0		4.0		4.0	
Max Green Setting (Gmax), s	41.0		41.0		16.0	
Max Q Clear Time (g_c+I1), s	3.9		11.5		2.2	
Green Ext Time (p_c), s	5.2		9.8		0.0	
Intersection Summary						
HCM 6th Ctrl Delay, s/veh	2.3					
HCM 6th LOS	A					

HCM 6th Signalized Intersection Summary 10: Spencer St N & SR 161

Meridian Avenue
With Project (2035) Weekday PM Peak Hour - Option A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	20	15	0	10	10	605	35	5	920	5
Future Volume (veh/h)	5	0	20	15	0	10	10	605	35	5	920	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	0.97		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1856	1856	1856
Adj Flow Rate, veh/h	5	0	21	16	0	11	11	637	37	5	968	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	3	3	3
Cap, veh/h	175	0	71	164	0	72	464	1420	83	647	1485	8
Arrive On Green	0.04	0.00	0.04	0.04	0.00	0.04	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1426	0	1574	1374	0	1610	582	1764	102	758	1844	10
Grp Volume(v), veh/h	5	0	21	16	0	11	11	0	674	5	0	973
Grp Sat Flow(s),veh/h/ln	1426	0	1574	1374	0	1610	582	0	1867	758	0	1854
Q Serve(g_s), s	0.2	0.0	0.8	0.7	0.0	0.4	0.5	0.0	6.6	0.1	0.0	12.9
Cycle Q Clear(g_c), s	0.6	0.0	0.8	1.5	0.0	0.4	13.4	0.0	6.6	6.7	0.0	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.01
Lane Grp Cap(c), veh/h	175	0	71	164	0	72	464	0	1503	647	0	1493
V/C Ratio(X)	0.03	0.00	0.30	0.10	0.00	0.15	0.02	0.00	0.45	0.01	0.00	0.65
Avail Cap(c_a), veh/h	493	0	422	471	0	432	464	0	1503	647	0	1493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	27.7	28.4	0.0	27.6	5.1	0.0	1.8	2.8	0.0	2.4
Incr Delay (d2), s/veh	0.1	0.0	2.3	0.3	0.0	1.0	0.1	0.0	1.0	0.0	0.0	2.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.3	0.2	0.0	0.2	0.1	0.0	0.8	0.0	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.9	0.0	30.1	28.7	0.0	28.5	5.2	0.0	2.8	2.8	0.0	4.6
LnGrp LOS	C		C	C		C	A		A	A		A
Approach Vol, veh/h	26					27		685		978		
Approach Delay, s/veh	29.6					28.6		2.8		4.6		
Approach LOS	C					C		A		A		
Timer - Assigned Phs	2		4			6		8				
Phs Duration (G+Y+Rc), s	52.8		7.2			52.8		7.2				
Change Period (Y+Rc), s	4.5		4.5			4.5		4.5				
Max Green Setting (Gmax), s	34.9		16.1			34.9		16.1				
Max Q Clear Time (g_c+I1), s	15.4		2.8			14.9		3.5				
Green Ext Time (p_c), s	4.8		0.0			8.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			4.6									
HCM 6th LOS			A									

Appendix E: Future (2035) Build Conditions – Alternative B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	5	5	1575	610	15
Future Vol, veh/h	25	5	5	1575	610	15
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	175	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	6	6
Mvmt Flow	27	5	5	1676	649	16

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1507	335	666	0	-	0
Stage 1	658	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	114	667	899	-	-	-
Stage 1	482	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	666	898	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	385	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	19.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	898	-	275	-	-
HCM Lane V/C Ratio	0.006	-	0.116	-	-
HCM Control Delay (s/veh)	9	-	19.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q (veh)	0	-	0.4	-	-

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/20th St E - AM Peak Hour - Future 2035 Baseline (Site Folder: General)]**

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	5.0	1	5.0	0.696	13.6	LOS B	6.4	166.3	0.54	0.51	0.54	36.9
3	L2	60	5.0	65	5.0	0.696	11.1	LOS B	6.4	166.3	0.54	0.51	0.54	36.0
8	T1	1400	5.0	1522	5.0	0.696	5.2	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
18	R2	65	5.0	71	5.0	0.696	5.3	LOS A	6.4	166.8	0.53	0.49	0.53	34.9
Approach		1526	5.0	1659	5.0	0.696	5.5	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
East: 20th St E														
1u	U	1	3.0	1	3.0	0.418	19.6	LOS B	2.0	51.6	0.80	0.96	0.95	33.7
1	L2	80	3.0	87	3.0	0.418	17.1	LOS B	2.0	51.6	0.80	0.96	0.95	32.9
6	T1	10	3.0	11	3.0	0.418	11.3	LOS B	2.0	51.6	0.80	0.96	0.95	32.8
16	R2	85	3.0	92	3.0	0.418	11.1	LOS B	2.0	51.6	0.80	0.96	0.95	31.9
Approach		176	3.0	191	3.0	0.418	13.9	LOS B	2.0	51.6	0.80	0.96	0.95	32.4
North: Meridian Ave E														
7u	U	1	6.0	1	6.0	0.296	13.2	LOS B	1.5	39.8	0.36	0.47	0.36	37.7
7	L2	15	6.0	16	6.0	0.296	10.7	LOS B	1.5	39.8	0.36	0.47	0.36	36.7
4	T1	545	6.0	592	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.47	0.35	36.7
14	R2	60	6.0	65	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.46	0.35	35.5
Approach		621	6.0	675	6.0	0.296	5.0	LOS A	1.5	40.0	0.35	0.47	0.35	36.6
West: 20th St E														
5u	U	1	0.0	1	0.0	0.195	14.5	LOS B	0.7	17.8	0.51	0.78	0.51	35.9
5	L2	90	0.0	98	0.0	0.195	12.0	LOS B	0.7	17.8	0.51	0.78	0.51	35.0
2	T1	10	0.0	11	0.0	0.195	6.2	LOS A	0.7	17.8	0.51	0.78	0.51	34.9
12	R2	45	0.0	49	0.0	0.195	6.1	LOS A	0.7	17.8	0.51	0.78	0.51	33.9
Approach		146	0.0	159	0.0	0.195	9.8	LOS A	0.7	17.8	0.51	0.78	0.51	34.7
All Vehicles		2469	4.8	2684	4.8	0.696	6.2	LOS A	6.4	166.8	0.51	0.54	0.52	35.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔		↑↑		↔	↑↑
Traffic Vol, veh/h	5	10	1515	5	10	660
Future Vol, veh/h	5	10	1515	5	10	660
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	5	11	1612	5	11	702
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1990	811	0	0	1618	0
Stage 1	1616	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24	-
Pot Cap-1 Maneuver	54	327	-	-	390	-
Stage 1	151	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	326	-	-	390	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	151	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	23.4	0		0.2		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	212	390	-	
HCM Lane V/C Ratio	-	-	0.075	0.027	-	
HCM Control Delay (s/veh)	-	-	23.4	14.5	-	
HCM Lane LOS	-	-	C	B	-	
HCM 95th %tile Q (veh)	-	-	0.2	0.1	-	

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue

With Project (2035) Weekday AM Peak Hour - Option B

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Future Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	226	91	140	108	177	129	124	1285	38	59	565	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	4	4	4
Cap, veh/h	251	170	261	132	190	138	149	1636	48	75	1343	178
Arrive On Green	0.14	0.26	0.26	0.08	0.19	0.19	0.09	0.48	0.48	0.04	0.43	0.43
Sat Flow, veh/h	1739	648	996	1739	980	714	1739	3440	102	1753	3104	411
Grp Volume(v), veh/h	226	0	231	108	0	306	124	647	676	59	318	322
Grp Sat Flow(s),veh/h/ln	1739	0	1644	1739	0	1695	1739	1735	1807	1753	1749	1766
Q Serve(g_s), s	16.6	0.0	15.7	8.0	0.0	23.1	9.1	40.6	40.7	4.3	16.4	16.5
Cycle Q Clear(g_c), s	16.6	0.0	15.7	8.0	0.0	23.1	9.1	40.6	40.7	4.3	16.4	16.5
Prop In Lane	1.00		0.61	1.00		0.42	1.00		0.06	1.00		0.23
Lane Grp Cap(c), veh/h	251	0	430	132	0	328	149	825	860	75	757	764
V/C Ratio(X)	0.90	0.00	0.54	0.82	0.00	0.93	0.83	0.78	0.79	0.78	0.42	0.42
Avail Cap(c_a), veh/h	273	0	430	214	0	331	238	825	860	90	757	764
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	0.0	41.2	59.2	0.0	51.6	58.5	28.5	28.5	61.6	25.6	25.6
Incr Delay (d2), s/veh	29.1	0.0	1.3	12.0	0.0	32.4	12.7	7.4	7.2	30.1	1.7	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	6.5	3.9	0.0	12.7	4.5	18.0	18.8	2.6	7.1	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	83.8	0.0	42.5	71.2	0.0	84.0	71.2	35.9	35.7	91.7	27.3	27.3
LnGrp LOS	F		D	E		F	E	D	D	F	C	C
Approach Vol, veh/h	457					414		1447		699		
Approach Delay, s/veh	63.0					80.7		38.8		32.7		
Approach LOS	E					F		D		C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	61.2	23.3	29.8	10.2	66.7	14.5	38.6				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	17.8	47.7	20.4	25.4	6.7	58.8	16.0	29.8				
Max Q Clear Time (g_c+I1), s	11.1	18.5	18.6	25.1	6.3	42.7	10.0	17.7				
Green Ext Time (p_c), s	0.1	4.1	0.1	0.1	0.0	8.1	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			46.8									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↕			↕	
Traffic Vol, veh/h	0	0	10	0	0	30	0	1320	15	0	780	15
Future Vol, veh/h	0	0	10	0	0	30	0	1320	15	0	780	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	11	1	1	23	23	1	1	1	5	1	5
Mvmt Flow	0	0	11	0	0	32	0	1389	16	0	821	16

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	419	-	-	695	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.92	-	-	7.36	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.31	-	-	3.53	-	-
Pot Cap-1 Maneuver	0	0	586	0	0	340	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %							-	-
Mov Cap-1 Maneuver	-	-	586	-	-	340	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	11.3	16.7	0	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	586	340	-	-
HCM Lane V/C Ratio	-	0.018	0.093	-	-
HCM Control Delay (s/veh)	-	11.3	16.7	-	-
HCM Lane LOS	-	B	C	-	-
HCM 95th %tile Q (veh)	-	0.1	0.3	-	-

HCM 6th Signalized Intersection Summary

6: SR-161 & 32nd St. E.

Meridian Avenue
With Project (2035) Weekday AM Peak Hour - Option B

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	50	10	20	45	15	70	1320	40	85	695	20
Future Volume (veh/h)	35	50	10	20	45	15	70	1320	40	85	695	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1841	1841	1707	1707	1885	1841	1885	1841	1885	1885	1885
Adj Flow Rate, veh/h	37	52	10	21	47	16	73	1389	42	89	732	21
Peak Hour Factor	0.95	0.96	0.96	0.96	0.96	0.95	0.96	0.95	0.96	0.95	0.95	0.95
Percent Heavy Veh, %	1	4	4	13	13	1	4	1	4	1	1	1
Cap, veh/h	137	128	25	136	104	35	94	2928	88	340	2583	74
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.05	0.82	0.82	0.73	0.73	0.73
Sat Flow, veh/h	1350	1500	289	1223	1218	415	1753	3550	107	377	3556	102
Grp Volume(v), veh/h	37	0	62	21	0	63	73	700	731	89	369	384
Grp Sat Flow(s),veh/h/ln	1350	0	1789	1223	0	1633	1753	1791	1866	377	1791	1867
Q Serve(g_s), s	2.7	0.0	3.3	1.7	0.0	3.7	4.1	11.2	11.3	8.9	7.1	7.1
Cycle Q Clear(g_c), s	6.4	0.0	3.3	4.9	0.0	3.7	4.1	11.2	11.3	10.3	7.1	7.1
Prop In Lane	1.00		0.16	1.00		0.25	1.00		0.06	1.00		0.05
Lane Grp Cap(c), veh/h	137	0	152	136	0	139	94	1478	1539	340	1301	1356
V/C Ratio(X)	0.27	0.00	0.41	0.15	0.00	0.45	0.78	0.47	0.47	0.26	0.28	0.28
Avail Cap(c_a), veh/h	245	0	295	234	0	269	184	1478	1539	340	1301	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	0.0	43.4	45.7	0.0	43.5	46.7	2.5	2.5	5.4	4.7	4.7
Incr Delay (d2), s/veh	1.0	0.0	1.7	0.5	0.0	2.3	12.9	1.1	1.1	1.9	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	1.5	0.5	0.0	1.6	2.1	2.5	2.6	0.8	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.6	0.0	45.1	46.2	0.0	45.8	59.7	3.6	3.6	7.3	5.3	5.2
LnGrp LOS	D		D	D		D	E	A	A	A	A	A
Approach Vol, veh/h	99			84			1504			842		
Approach Delay, s/veh	46.0			45.9			6.3			5.5		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4		5	6	8				
Phs Duration (G+Y+Rc), s	87.0			13.0		9.8	77.2	13.0				
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s	74.5			16.5		10.5	59.5	16.5				
Max Q Clear Time (g_c+I1), s	13.3			8.4		6.1	12.3	6.9				
Green Ext Time (p_c), s	14.7			0.2		0.0	7.9	0.2				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				8.9								
HCM 6th LOS				A								

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Meridian Avenue

With Project (2035) Weekday AM Peak Hour - Option B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	45	80	0	305	40	1070	100	105	595	25
Future Volume (veh/h)	50	0	45	80	0	305	40	1070	100	105	595	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1752	1752	1752	1826	1826	1826	1826	1826	1826	1811	1811	1811
Adj Flow Rate, veh/h	54	0	48	86	0	328	43	1151	108	113	640	27
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	10	10	10	5	5	5	5	5	5	6	6	6
Cap, veh/h	126	0	379	377	0	395	54	1694	159	141	1947	82
Arrive On Green	0.25	0.00	0.25	0.25	0.00	0.25	0.03	0.53	0.53	0.08	0.58	0.58
Sat Flow, veh/h	985	0	1485	1325	0	1547	1739	3206	300	1725	3364	142
Grp Volume(v), veh/h	54	0	48	86	0	328	43	622	637	113	327	340
Grp Sat Flow(s), veh/h/ln	985	0	1485	1325	0	1547	1739	1735	1772	1725	1721	1786
Q Serve(g_s), s	5.5	0.0	2.5	5.3	0.0	20.0	2.5	26.4	26.5	6.4	9.9	9.9
Cycle Q Clear(g_c), s	25.5	0.0	2.5	7.8	0.0	20.0	2.5	26.4	26.5	6.4	9.9	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.08
Lane Grp Cap(c), veh/h	126	0	379	377	0	395	54	917	936	141	996	1034
V/C Ratio(X)	0.43	0.00	0.13	0.23	0.00	0.83	0.79	0.68	0.68	0.80	0.33	0.33
Avail Cap(c_a), veh/h	126	0	379	377	0	395	120	917	936	216	996	1034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	0.0	28.7	31.7	0.0	35.2	48.1	17.3	17.4	45.1	10.9	11.0
Incr Delay (d2), s/veh	2.3	0.0	0.1	0.3	0.0	14.0	22.3	4.0	4.0	11.7	0.9	0.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.0	0.9	1.7	0.0	8.8	1.4	10.7	11.0	3.2	3.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.6	0.0	28.8	32.0	0.0	49.2	70.4	21.4	21.3	56.9	11.8	11.8
LnGrp LOS	D		C	C		D	E	C	C	E	B	B
Approach Vol, veh/h	102			414			1302			780		
Approach Delay, s/veh	39.8			45.6			23.0			18.3		
Approach LOS	D			D			C			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	62.4		30.0	12.7	57.3		30.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.9	54.1		25.5	12.5	48.5		25.5				
Max Q Clear Time (g_c+I), s	14.5	11.9		22.0	8.4	28.5		27.5				
Green Ext Time (p_c), s	0.0	4.5		0.8	0.1	8.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				25.9								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	1195	10	0	730	0	10
Future Vol, veh/h	1195	10	0	730	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	5	6	6	7	7
Mvmt Flow	1285	11	0	785	0	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	-	-	648
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	7.04
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.37
Pot Cap-1 Maneuver	-	-	0	-	401
Stage 1	-	-	0	-	-
Stage 2	-	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	401
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	401	-	-	-
HCM Lane V/C Ratio	0.027	-	-	-
HCM Control Delay (s/veh)	14.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q (veh)	0.1	-	-	-

HCM 6th Signalized Intersection Summary

9: SR 161 & Dechaux Rd E

Meridian Avenue
With Project (2035) Weekday AM Peak Hour - Option B

						
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	 			 		
Traffic Volume (veh/h)	1220	0	5	725	5	5
Future Volume (veh/h)	1220	0	5	725	5	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1811	1811	1900	1900
Adj Flow Rate, veh/h	1356	0	6	806	6	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	6	6	0	0
Cap, veh/h	2989	0	65	2867	22	19
Arrive On Green	0.85	0.00	0.85	0.85	0.01	0.01
Sat Flow, veh/h	3681	0	5	3438	1810	1610
Grp Volume(v), veh/h	1356	0	434	378	6	6
Grp Sat Flow(s),veh/h/ln	1749	0	1794	1566	1810	1610
Q Serve(g_s), s	5.5	0.0	0.0	2.8	0.2	0.2
Cycle Q Clear(g_c), s	5.5	0.0	2.7	2.8	0.2	0.2
Prop In Lane		0.00	0.01		1.00	1.00
Lane Grp Cap(c), veh/h	2989	0	1594	1338	22	19
V/C Ratio(X)	0.45	0.00	0.27	0.28	0.27	0.31
Avail Cap(c_a), veh/h	2989	0	1594	1338	483	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.0	0.0	0.8	0.8	29.4	29.4
Incr Delay (d2), s/veh	0.5	0.0	0.4	0.5	6.6	8.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	0.2	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.5	0.0	1.3	1.4	36.0	38.1
LnGrp LOS	A		A	A	D	D
Approach Vol, veh/h	1356			812	12	
Approach Delay, s/veh	1.5			1.3	37.0	
Approach LOS	A			A	D	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	55.3		55.3		4.7	
Change Period (Y+Rc), s	4.0		4.0		4.0	
Max Green Setting (Gmax), s	36.0		36.0		16.0	
Max Q Clear Time (g_c+I1), s	7.5		4.8		2.2	
Green Ext Time (p_c), s	12.6		6.0		0.0	
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			1.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

10: Spencer St N & SR 161

Meridian Avenue
With Project (2035) Weekday AM Peak Hour - Option B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	15	25	0	10	80	1210	25	10	710	5
Future Volume (veh/h)	0	0	15	25	0	10	80	1210	25	10	710	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1707	1707	1707	1841	1841	1841	1826	1826	1826
Adj Flow Rate, veh/h	0	0	16	27	0	11	87	1315	27	11	772	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	13	13	13	4	4	4	5	5	5
Cap, veh/h	120	0	64	158	0	57	638	2840	58	397	2864	19
Arrive On Green	0.00	0.00	0.04	0.04	0.00	0.04	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1426	0	1610	1275	0	1447	683	3505	72	397	3534	23
Grp Volume(v), veh/h	0	0	16	27	0	11	87	656	686	11	379	398
Grp Sat Flow(s),veh/h/ln	1426	0	1610	1275	0	1447	683	1749	1828	397	1735	1822
Q Serve(g_s), s	0.0	0.0	0.6	1.3	0.0	0.4	2.1	6.8	6.8	0.5	3.2	3.2
Cycle Q Clear(g_c), s	0.0	0.0	0.6	1.8	0.0	0.4	5.3	6.8	6.8	7.4	3.2	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		0.01
Lane Grp Cap(c), veh/h	120	0	64	158	0	57	638	1417	1481	397	1406	1476
V/C Ratio(X)	0.00	0.00	0.25	0.17	0.00	0.19	0.14	0.46	0.46	0.03	0.27	0.27
Avail Cap(c_a), veh/h	444	0	429	448	0	386	638	1417	1481	397	1406	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	28.0	28.8	0.0	27.9	2.0	1.7	1.7	2.8	1.4	1.4
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.5	0.0	1.6	0.4	1.1	1.0	0.1	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.4	0.0	0.2	0.2	0.7	0.7	0.0	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	30.0	29.3	0.0	29.5	2.5	2.8	2.8	3.0	1.9	1.8
LnGrp LOS			C	C			C	A	A	A	A	A
Approach Vol, veh/h	16				38		1429				788	
Approach Delay, s/veh	30.0				29.4		2.8				1.9	
Approach LOS	C				C		A				A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	53.1		6.9		53.1		6.9					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	35.0		16.0		35.0		16.0					
Max Q Clear Time (g_c+I1), s	8.8		2.6		9.4		3.8					
Green Ext Time (p_c), s	12.0		0.0		5.5		0.1					
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			3.1									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	5	905	1535	30
Future Vol, veh/h	10	10	5	905	1535	30
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	175	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	6	2	2	2	2
Mvmt Flow	11	11	6	1006	1706	33

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2242	874	1741	0	-	0
Stage 1	1725	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Critical Hdwy	6.92	7.02	4.14	-	-	-
Critical Hdwy Stg 1	5.92	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.56	3.36	2.22	-	-	-
Pot Cap-1 Maneuver	34	285	357	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	33	284	356	-	-	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	122	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	33.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	356	-	147	-	-
HCM Lane V/C Ratio	0.016	-	0.151	-	-
HCM Control Delay (s/veh)	15.3	-	33.8	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q (veh)	0	-	0.5	-	-

MOVEMENT SUMMARY

 Site: 101 [Meridian Ave E/20th St E - PM Peak Hour - Future
2035 Baseline (Site Folder: General)]

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	2.0	1	2.0	0.427	13.4	LOS B	2.5	62.4	0.41	0.50	0.41	37.4
3	L2	50	2.0	54	2.0	0.427	10.9	LOS B	2.5	62.4	0.41	0.50	0.41	36.5
8	T1	775	2.0	842	2.0	0.427	5.0	LOS A	2.5	62.8	0.41	0.50	0.41	36.5
18	R2	100	2.0	109	2.0	0.427	5.1	LOS A	2.5	62.8	0.41	0.49	0.41	35.4
Approach		926	2.0	1007	2.0	0.427	5.4	LOS A	2.5	62.8	0.41	0.49	0.41	36.4
East: 20th St E														
1u	U	1	1.0	1	1.0	0.208	15.2	LOS B	0.8	20.0	0.59	0.83	0.59	35.9
1	L2	70	1.0	76	1.0	0.208	12.7	LOS B	0.8	20.0	0.59	0.83	0.59	35.0
6	T1	5	1.0	5	1.0	0.208	6.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.9
16	R2	60	1.0	65	1.0	0.208	6.8	LOS A	0.8	20.0	0.59	0.83	0.59	33.8
Approach		136	1.0	148	1.0	0.208	9.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.5
North: Meridian Ave E														
7u	U	1	2.0	1	2.0	0.689	13.5	LOS B	6.1	153.9	0.53	0.52	0.53	37.0
7	L2	95	2.0	103	2.0	0.689	11.0	LOS B	6.1	153.9	0.53	0.52	0.53	36.0
4	T1	1355	2.0	1473	2.0	0.689	5.2	LOS A	6.1	154.4	0.53	0.51	0.53	36.1
14	R2	100	2.0	109	2.0	0.689	5.2	LOS A	6.1	154.4	0.52	0.49	0.52	35.0
Approach		1551	2.0	1686	2.0	0.689	5.6	LOS A	6.1	154.4	0.53	0.51	0.53	36.0
West: 20th St E														
5u	U	1	0.0	1	0.0	0.330	18.0	LOS B	1.5	37.5	0.76	0.92	0.83	34.6
5	L2	70	0.0	76	0.0	0.330	15.5	LOS B	1.5	37.5	0.76	0.92	0.83	33.7
2	T1	10	0.0	11	0.0	0.330	9.7	LOS A	1.5	37.5	0.76	0.92	0.83	33.6
12	R2	70	0.0	76	0.0	0.330	9.6	LOS A	1.5	37.5	0.76	0.92	0.83	32.6
Approach		151	0.0	164	0.0	0.330	12.4	LOS B	1.5	37.5	0.76	0.92	0.83	33.2
All Vehicles		2764	1.8	3004	1.8	0.689	6.1	LOS A	6.1	154.4	0.50	0.54	0.51	35.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	835	5	20	1465
Future Vol, veh/h	5	15	835	5	20	1465
Conflicting Peds, #/hr	9	10	0	9	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	6	17	949	6	23	1665

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1850	498	0	0	965
Stage 1	962	-	-	-	-
Stage 2	888	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23
Pot Cap-1 Maneuver	67	523	-	-	703
Stage 1	336	-	-	-	-
Stage 2	367	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	64	515	-	-	697
Mov Cap-2 Maneuver	185	-	-	-	-
Stage 1	333	-	-	-	-
Stage 2	352	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	697
HCM Lane V/C Ratio	-	-	0.064	0.033
HCM Control Delay (s/veh)	-	-	15.8	10.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q (veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue

With Project (2035) Weekday PM Peak Hour - Option B

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	120	135	40	140	50	150	630	50	115	1110	255
Future Volume (veh/h)	170	120	135	40	140	50	150	630	50	115	1110	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	189	133	150	44	156	56	167	700	56	128	1233	283
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	3	3	3
Cap, veh/h	214	167	188	65	165	59	192	1740	139	154	1431	324
Arrive On Green	0.12	0.21	0.21	0.04	0.13	0.13	0.11	0.52	0.52	0.09	0.50	0.50
Sat Flow, veh/h	1767	793	895	1781	1310	470	1781	3332	266	1767	2852	647
Grp Volume(v), veh/h	189	0	283	44	0	212	167	373	383	128	756	760
Grp Sat Flow(s),veh/h/ln	1767	0	1688	1781	0	1780	1781	1777	1821	1767	1763	1736
Q Serve(g_s), s	13.7	0.0	20.7	3.2	0.0	15.4	12.0	16.5	16.5	9.3	48.7	50.4
Cycle Q Clear(g_c), s	13.7	0.0	20.7	3.2	0.0	15.4	12.0	16.5	16.5	9.3	48.7	50.4
Prop In Lane	1.00		0.53	1.00		0.26	1.00		0.15	1.00		0.37
Lane Grp Cap(c), veh/h	214	0	355	65	0	225	192	928	951	154	884	871
V/C Ratio(X)	0.89	0.00	0.80	0.67	0.00	0.94	0.87	0.40	0.40	0.83	0.86	0.87
Avail Cap(c_a), veh/h	223	0	355	85	0	225	200	928	951	250	884	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	0.0	48.7	61.8	0.0	56.3	57.1	18.8	18.8	58.4	28.3	28.7
Incr Delay (d2), s/veh	30.9	0.0	12.0	12.7	0.0	44.5	30.7	1.3	1.3	11.8	10.4	11.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	9.8	1.7	0.0	9.6	7.0	7.0	7.2	4.6	22.3	23.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	87.2	0.0	60.7	74.5	0.0	100.9	87.8	20.1	20.1	70.2	38.7	40.5
LnGrp LOS	F		E	E		F	F	C	C	E	D	D
Approach Vol, veh/h		472			256			923			1644	
Approach Delay, s/veh		71.3			96.3			32.3			42.0	
Approach LOS		E			F			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	70.1	20.3	21.0	15.9	72.8	9.4	31.9				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.6	63.9	16.4	16.4	18.4	60.1	6.2	26.6				
Max Q Clear Time (g_c+I1), s	14.0	52.4	15.7	17.4	11.3	18.5	5.2	22.7				
Green Ext Time (p_c), s	0.0	7.5	0.0	0.0	0.2	5.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			47.7									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↕			↕	
Traffic Vol, veh/h	0	0	15	0	0	15	0	825	30	0	1260	25
Future Vol, veh/h	0	0	15	0	0	15	0	825	30	0	1260	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	Free	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	95	95	89	89	95	95	95	89	95	89
Heavy Vehicles, %	0	0	1	1	0	0	1	1	1	2	1	2
Mvmt Flow	0	0	16	0	0	17	0	868	32	0	1326	28

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	-	677	-	-	434	-	0
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.92	-	-	6.9	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.31	-	-	3.3	-	-
Pot Cap-1 Maneuver	0	0	398	0	0	576	0	-
Stage 1	0	0	-	0	0	-	0	-
Stage 2	0	0	-	0	0	-	0	-
Platoon blocked, %							-	-
Mov Cap-1 Maneuver	-	-	398	-	-	576	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	14.4	11.4	0	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	398	576	-	-
HCM Lane V/C Ratio	-	0.04	0.029	-	-
HCM Control Delay (s/veh)	-	14.4	11.4	-	-
HCM Lane LOS	-	B	B	-	-
HCM 95th %tile Q (veh)	-	0.1	0.1	-	-

HCM 6th Signalized Intersection Summary

6: SR-161 & 32nd St. E.

Meridian Avenue
With Project (2035) Weekday PM Peak Hour - Option B

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	50	70	30	10	70	5	740	25	60	1195	35
Future Volume (veh/h)	25	50	70	30	10	70	5	740	25	60	1195	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1900	1900	1856	1856	1885	1870	1885	1870	1885	1885	1885
Adj Flow Rate, veh/h	26	56	79	34	11	74	6	779	28	63	1258	37
Peak Hour Factor	0.95	0.89	0.89	0.89	0.89	0.95	0.89	0.95	0.89	0.95	0.95	0.95
Percent Heavy Veh, %	1	0	0	3	3	1	2	1	2	1	1	1
Cap, veh/h	173	89	126	135	26	175	11	2446	88	82	2605	77
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.01	0.69	0.69	0.05	0.73	0.73
Sat Flow, veh/h	1319	712	1004	1243	207	1391	1781	3526	127	1795	3553	104
Grp Volume(v), veh/h	26	0	135	34	0	85	6	396	411	63	634	661
Grp Sat Flow(s),veh/h/ln	1319	0	1716	1243	0	1597	1781	1791	1862	1795	1791	1866
Q Serve(g_s), s	1.9	0.0	7.5	2.7	0.0	4.9	0.3	8.7	8.7	3.5	14.6	14.6
Cycle Q Clear(g_c), s	6.8	0.0	7.5	10.1	0.0	4.9	0.3	8.7	8.7	3.5	14.6	14.6
Prop In Lane	1.00		0.59	1.00		0.87	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	173	0	216	135	0	201	11	1242	1292	82	1313	1369
V/C Ratio(X)	0.15	0.00	0.63	0.25	0.00	0.42	0.55	0.32	0.32	0.77	0.48	0.48
Avail Cap(c_a), veh/h	277	0	352	234	0	327	98	1242	1292	224	1313	1369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	41.5	46.3	0.0	40.4	49.6	6.0	6.0	47.2	5.5	5.5
Incr Delay (d2), s/veh	0.4	0.0	3.0	1.0	0.0	1.4	36.6	0.7	0.6	13.9	1.3	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	3.3	0.8	0.0	2.0	0.3	3.0	3.1	1.9	4.9	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.9	0.0	44.5	47.3	0.0	41.8	86.2	6.7	6.7	61.1	6.8	6.7
LnGrp LOS	D		D	D		D	F	A	A	E	A	A
Approach Vol, veh/h	161			119			813			1358		
Approach Delay, s/veh	44.4			43.4			7.3			9.3		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	73.9		17.1	5.1	77.8		17.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	12.5	53.5		20.5	5.5	60.5		20.5				
Max Q Clear Time (g_c+I1), s	5.5	10.7		9.5	2.3	16.6		12.1				
Green Ext Time (p_c), s	0.1	5.7		0.6	0.0	12.3		0.3				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh				12.6								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary

7: SR-161 & 36th St. E

Meridian Avenue

With Project (2035) Weekday PM Peak Hour - Option B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	40	95	5	180	30	570	30	465	790	50
Future Volume (veh/h)	20	5	40	95	5	180	30	570	30	465	790	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1841	1841	1841	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	5	43	102	5	194	32	613	32	500	849	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	4	3	3	3	2	2	2	2	2	2
Cap, veh/h	117	26	224	251	6	246	42	1374	72	543	2312	147
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.40	0.40	0.30	0.68	0.68
Sat Flow, veh/h	1164	163	1399	1344	40	1536	1781	3435	179	1781	3392	216
Grp Volume(v), veh/h	22	0	48	102	0	199	32	317	328	500	445	458
Grp Sat Flow(s), veh/h/ln	1164	0	1561	1344	0	1576	1781	1777	1838	1781	1777	1831
Q Serve(g_s), s	1.9	0.0	2.7	7.1	0.0	12.1	1.8	13.0	13.0	27.1	10.6	10.6
Cycle Q Clear(g_c), s	14.0	0.0	2.7	9.8	0.0	12.1	1.8	13.0	13.0	27.1	10.6	10.6
Prop In Lane	1.00		0.90	1.00		0.97	1.00		0.10	1.00		0.12
Lane Grp Cap(c), veh/h	117	0	250	251	0	252	42	711	735	543	1211	1248
V/C Ratio(X)	0.19	0.00	0.19	0.41	0.00	0.79	0.76	0.45	0.45	0.92	0.37	0.37
Avail Cap(c_a), veh/h	120	0	254	255	0	257	109	711	735	750	1211	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	36.4	40.6	0.0	40.4	48.5	21.9	21.9	33.6	6.8	6.8
Incr Delay (d2), s/veh	0.8	0.0	0.4	1.1	0.0	15.0	24.3	2.0	2.0	13.3	0.9	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.0	2.4	0.0	5.7	1.1	5.6	5.8	13.3	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.9	0.0	36.8	41.7	0.0	55.3	72.8	23.9	23.9	46.9	7.6	7.6
LnGrp LOS	D		D	D		E	E	C	C	D	A	A
Approach Vol, veh/h	70			301			677			1403		
Approach Delay, s/veh	40.3			50.7			26.2			21.6		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	72.6		20.5	35.0	44.5		20.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	64.1			16.3	42.1	28.1		16.3				
Max Q Clear Time (g_c+I), s	13.8	12.6		14.1	29.1	15.0		16.0				
Green Ext Time (p_c), s	0.0	6.7		0.3	1.4	3.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	27.0											
HCM 6th LOS	C											

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	620	15	0	930	0	10
Future Vol, veh/h	620	15	0	930	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	984	24	0	1476	0	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 504
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.9
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.3
Pot Cap-1 Maneuver	-	- 0	- 0 518
Stage 1	-	- 0	- 0 -
Stage 2	-	- 0	- 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 518
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	518	-	-	-
HCM Lane V/C Ratio	0.031	-	-	-
HCM Control Delay (s/veh)	12.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q (veh)	0.1	-	-	-

HCM 6th Signalized Intersection Summary

9: SR 161 & Dechaux Rd E

Meridian Avenue
With Project (2035) Weekday PM Peak Hour - Option B

						
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	620	0	10	930	0	5
Future Volume (veh/h)	620	0	10	930	0	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1856	1856	1900	1900
Adj Flow Rate, veh/h	660	0	11	989	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	3	3	0	0
Cap, veh/h	3061	0	70	2959	10	9
Arrive On Green	0.86	0.00	0.86	0.86	0.00	0.01
Sat Flow, veh/h	3741	0	10	3520	1810	1610
Grp Volume(v), veh/h	660	0	535	465	0	5
Grp Sat Flow(s),veh/h/ln	1777	0	1841	1604	1810	1610
Q Serve(g_s), s	1.9	0.0	0.0	3.4	0.0	0.2
Cycle Q Clear(g_c), s	1.9	0.0	3.4	3.4	0.0	0.2
Prop In Lane		0.00	0.02		1.00	1.00
Lane Grp Cap(c), veh/h	3061	0	1647	1382	10	9
V/C Ratio(X)	0.22	0.00	0.32	0.34	0.00	0.58
Avail Cap(c_a), veh/h	3061	0	1647	1382	483	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.7	0.0	0.8	0.8	0.0	29.8
Incr Delay (d2), s/veh	0.2	0.0	0.5	0.7	0.0	50.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	0.3	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.9	0.0	1.3	1.5	0.0	79.7
LnGrp LOS	A		A	A		E
Approach Vol, veh/h	660			1000	5	
Approach Delay, s/veh	0.9			1.4	79.7	
Approach LOS	A			A	E	
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	55.7		55.7		4.3	
Change Period (Y+Rc), s	4.0		4.0		4.0	
Max Green Setting (Gmax), s	36.0		36.0		16.0	
Max Q Clear Time (g_c+I1), s	3.9		5.4		2.2	
Green Ext Time (p_c), s	5.1		7.7		0.0	
Intersection Summary						
HCM 6th Ctrl Delay, s/veh			1.4			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Summary

10: Spencer St N & SR 161

Meridian Avenue
With Project (2035) Weekday PM Peak Hour - Option B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	20	15	0	10	10	605	35	5	920	5
Future Volume (veh/h)	5	0	20	15	0	10	10	605	35	5	920	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.98		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1856	1856	1856
Adj Flow Rate, veh/h	5	0	21	16	0	11	11	637	37	5	968	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	3	3	3
Cap, veh/h	175	0	71	165	0	72	547	2770	161	697	2896	15
Arrive On Green	0.04	0.00	0.04	0.04	0.00	0.04	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1426	0	1588	1389	0	1610	582	3440	200	758	3596	19
Grp Volume(v), veh/h	5	0	21	16	0	11	11	331	343	5	474	499
Grp Sat Flow(s),veh/h/ln	1426	0	1588	1389	0	1610	582	1791	1849	758	1763	1852
Q Serve(g_s), s	0.2	0.0	0.8	0.7	0.0	0.4	0.3	2.7	2.7	0.1	4.3	4.3
Cycle Q Clear(g_c), s	0.6	0.0	0.8	1.4	0.0	0.4	4.6	2.7	2.7	2.8	4.3	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	175	0	71	165	0	72	547	1442	1489	697	1419	1491
V/C Ratio(X)	0.03	0.00	0.29	0.10	0.00	0.15	0.02	0.23	0.23	0.01	0.33	0.33
Avail Cap(c_a), veh/h	503	0	437	484	0	443	547	1442	1489	697	1419	1491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	27.7	28.4	0.0	27.6	2.2	1.4	1.4	1.7	1.6	1.6
Incr Delay (d2), s/veh	0.1	0.0	2.3	0.3	0.0	1.0	0.1	0.4	0.4	0.0	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.3	0.2	0.0	0.2	0.0	0.3	0.3	0.0	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.9	0.0	30.0	28.7	0.0	28.5	2.2	1.8	1.8	1.7	2.2	2.2
LnGrp LOS	C		C	C		C	A	A	A	A	A	A
Approach Vol, veh/h	26					27		685		978		
Approach Delay, s/veh	29.6					28.6		1.8		2.2		
Approach LOS	C					C		A		A		
Timer - Assigned Phs	2		4			6		8				
Phs Duration (G+Y+Rc), s	52.8		7.2			52.8		7.2				
Change Period (Y+Rc), s	4.5		4.5			4.5		4.5				
Max Green Setting (Gmax), s	34.5		16.5			34.5		16.5				
Max Q Clear Time (g_c+l1), s	6.6		2.8			6.3		3.4				
Green Ext Time (p_c), s	4.6		0.0			7.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			2.8									
HCM 6th LOS			A									

Appendix E: Future (2035) Build Conditions – Alternative C

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	5	5	1575	610	15
Future Vol, veh/h	25	5	5	1575	610	15
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	175	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	6	6
Mvmt Flow	27	5	5	1676	649	16

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1507	335	666	0	-	0
Stage 1	658	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.2	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.25	-	-	-
Pot Cap-1 Maneuver	114	667	899	-	-	-
Stage 1	482	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	666	898	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	385	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	19.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	898	-	275	-	-
HCM Lane V/C Ratio	0.006	-	0.116	-	-
HCM Control Delay (s/veh)	9	-	19.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q (veh)	0	-	0.4	-	-

MOVEMENT SUMMARY

 Site: 101 [Meridian Ave E/20th St E - AM Peak Hour - Future
2035 Baseline (Site Folder: General)]

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	5.0	1	5.0	0.696	13.6	LOS B	6.4	166.3	0.54	0.51	0.54	36.9
3	L2	60	5.0	65	5.0	0.696	11.1	LOS B	6.4	166.3	0.54	0.51	0.54	36.0
8	T1	1400	5.0	1522	5.0	0.696	5.2	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
18	R2	65	5.0	71	5.0	0.696	5.3	LOS A	6.4	166.8	0.53	0.49	0.53	34.9
Approach		1526	5.0	1659	5.0	0.696	5.5	LOS A	6.4	166.8	0.53	0.50	0.53	36.0
East: 20th St E														
1u	U	1	3.0	1	3.0	0.418	19.6	LOS B	2.0	51.6	0.80	0.96	0.95	33.7
1	L2	80	3.0	87	3.0	0.418	17.1	LOS B	2.0	51.6	0.80	0.96	0.95	32.9
6	T1	10	3.0	11	3.0	0.418	11.3	LOS B	2.0	51.6	0.80	0.96	0.95	32.8
16	R2	85	3.0	92	3.0	0.418	11.1	LOS B	2.0	51.6	0.80	0.96	0.95	31.9
Approach		176	3.0	191	3.0	0.418	13.9	LOS B	2.0	51.6	0.80	0.96	0.95	32.4
North: Meridian Ave E														
7u	U	1	6.0	1	6.0	0.296	13.2	LOS B	1.5	39.8	0.36	0.47	0.36	37.7
7	L2	15	6.0	16	6.0	0.296	10.7	LOS B	1.5	39.8	0.36	0.47	0.36	36.7
4	T1	545	6.0	592	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.47	0.35	36.7
14	R2	60	6.0	65	6.0	0.296	4.9	LOS A	1.5	40.0	0.35	0.46	0.35	35.5
Approach		621	6.0	675	6.0	0.296	5.0	LOS A	1.5	40.0	0.35	0.47	0.35	36.6
West: 20th St E														
5u	U	1	0.0	1	0.0	0.195	14.5	LOS B	0.7	17.8	0.51	0.78	0.51	35.9
5	L2	90	0.0	98	0.0	0.195	12.0	LOS B	0.7	17.8	0.51	0.78	0.51	35.0
2	T1	10	0.0	11	0.0	0.195	6.2	LOS A	0.7	17.8	0.51	0.78	0.51	34.9
12	R2	45	0.0	49	0.0	0.195	6.1	LOS A	0.7	17.8	0.51	0.78	0.51	33.9
Approach		146	0.0	159	0.0	0.195	9.8	LOS A	0.7	17.8	0.51	0.78	0.51	34.7
All Vehicles		2469	4.8	2684	4.8	0.696	6.2	LOS A	6.4	166.8	0.51	0.54	0.52	35.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔		↑↑		↔	↑↑
Traffic Vol, veh/h	5	10	1515	5	10	660
Future Vol, veh/h	5	10	1515	5	10	660
Conflicting Peds, #/hr	1	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	5	11	1612	5	11	702

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1990	811	0	0	1618
Stage 1	1616	-	-	-	-
Stage 2	374	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.18
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.24
Pot Cap-1 Maneuver	54	327	-	-	390
Stage 1	151	-	-	-	-
Stage 2	672	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	52	326	-	-	390
Mov Cap-2 Maneuver	125	-	-	-	-
Stage 1	151	-	-	-	-
Stage 2	653	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	23.4	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	212	390
HCM Lane V/C Ratio	-	-	0.075	0.027
HCM Control Delay (s/veh)	-	-	23.4	14.5
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q (veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue

With Project (2035) Weekday AM Peak Hour - Option C

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Future Volume (veh/h)	210	85	130	100	165	120	115	1195	35	55	525	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1826	1826	1826	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	226	91	140	108	177	129	124	1285	38	59	565	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	4	4	4
Cap, veh/h	225	134	207	83	124	90	148	1918	57	76	1600	212
Arrive On Green	0.13	0.21	0.21	0.05	0.13	0.13	0.09	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1739	647	996	1739	980	714	1739	3440	102	1753	3104	411
Grp Volume(v), veh/h	226	0	231	108	0	306	124	647	676	59	318	322
Grp Sat Flow(s),veh/h/ln	1739	0	1643	1739	0	1693	1739	1735	1807	1753	1749	1766
Q Serve(g_s), s	16.8	0.0	16.8	6.2	0.0	16.4	9.1	34.3	34.3	4.3	14.0	14.1
Cycle Q Clear(g_c), s	16.8	0.0	16.8	6.2	0.0	16.4	9.1	34.3	34.3	4.3	14.0	14.1
Prop In Lane	1.00		0.61	1.00		0.42	1.00		0.06	1.00		0.23
Lane Grp Cap(c), veh/h	225	0	341	83	0	214	148	967	1008	76	901	910
V/C Ratio(X)	1.01	0.00	0.68	1.30	0.00	1.43	0.84	0.67	0.67	0.78	0.35	0.35
Avail Cap(c_a), veh/h	225	0	341	83	0	214	198	967	1008	165	901	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.6	0.0	47.5	61.9	0.0	56.8	58.6	20.3	20.3	61.6	18.6	18.7
Incr Delay (d2), s/veh	61.5	0.0	5.3	199.7	0.0	219.3	20.1	3.7	3.5	15.6	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	7.4	7.3	0.0	20.0	4.8	14.3	14.9	2.2	5.8	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	118.1	0.0	52.7	261.6	0.0	276.1	78.7	24.0	23.9	77.2	19.7	19.7
LnGrp LOS	F		D	F		F	E	C	C	E	B	B
Approach Vol, veh/h		457			414			1447			699	
Approach Delay, s/veh		85.1			272.3			28.6			24.6	
Approach LOS		F			F			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.7	71.9	21.4	21.0	10.2	77.4	10.8	31.6				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.8	63.3	16.8	16.4	12.2	65.9	6.2	27.0				
Max Q Clear Time (g_c+I1), s	11.1	16.1	18.8	18.4	6.3	36.3	8.2	18.8				
Green Ext Time (p_c), s	0.1	4.3	0.0	0.0	0.0	10.8	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			69.7									
HCM 6th LOS			E									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↕			↕	
Traffic Vol, veh/h	0	0	10	0	0	30	0	1320	15	0	780	15
Future Vol, veh/h	0	0	10	0	0	30	0	1320	15	0	780	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	Free	-	-	Free
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	11	1	1	23	23	1	1	1	5	1	5
Mvmt Flow	0	0	11	0	0	32	0	1389	16	0	821	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	411	-	-	695	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.92	-	-	7.36	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.31	-	-	3.53	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	593	0	0	340	0	-	0	0	-	0
Stage 1	0	0	-	0	0	-	0	-	0	0	-	0
Stage 2	0	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %												
Mov Cap-1 Maneuver	-	-	593	-	-	340	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	11.2		16.7		0		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBT EBLn1WBLn1		SBT									
Capacity (veh/h)	- 593 340		-									
HCM Lane V/C Ratio	- 0.018 0.093		-									
HCM Control Delay (s/veh)	- 11.2 16.7		-									
HCM Lane LOS	- B C		-									
HCM 95th %tile Q (veh)	- 0.1 0.3		-									

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/32nd St E - PM Peak Hour - 2035 Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) PM Peak Hour - Option C

Site Category: PM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	2.0	1	2.0	0.357	13.1	LOS B	1.9	48.8	0.34	0.45	0.34	37.3
3	L2	5	2.0	6	2.0	0.357	10.6	LOS B	1.9	48.8	0.34	0.45	0.34	36.7
8	T1	740	2.0	831	2.0	0.357	4.8	LOS A	1.9	49.0	0.34	0.45	0.34	36.6
18	R2	25	2.0	28	2.0	0.357	4.8	LOS A	1.9	49.0	0.34	0.45	0.34	34.8
Approach		771	2.0	866	2.0	0.357	4.8	LOS A	1.9	49.0	0.34	0.45	0.34	36.5
East: 32nd St E														
1u	U	1	3.0	1	3.0	0.170	15.0	LOS B	0.6	15.5	0.54	0.78	0.54	35.7
1	L2	30	3.0	34	3.0	0.170	12.5	LOS B	0.6	15.5	0.54	0.78	0.54	34.6
6	T1	10	3.0	11	3.0	0.170	6.7	LOS A	0.6	15.5	0.54	0.78	0.54	35.3
16	R2	70	3.0	79	3.0	0.170	6.5	LOS A	0.6	15.5	0.54	0.78	0.54	34.1
Approach		111	3.0	125	3.0	0.170	8.2	LOS A	0.6	15.5	0.54	0.78	0.54	34.3
North: Meridian Ave E														
7u	U	30	2.0	34	2.0	0.557	12.7	LOS B	4.3	108.8	0.28	0.43	0.28	37.9
7	L2	30	2.0	34	2.0	0.557	10.2	LOS B	4.3	108.8	0.28	0.43	0.28	36.4
4	T1	1195	2.0	1343	2.0	0.557	4.4	LOS A	4.3	108.9	0.28	0.41	0.28	36.7
14	R2	35	2.0	39	2.0	0.557	4.5	LOS A	4.3	108.9	0.28	0.40	0.28	35.9
Approach		1290	2.0	1449	2.0	0.557	4.8	LOS A	4.3	108.9	0.28	0.41	0.28	36.7
West: 32nd St E														
5u	U	1	0.0	1	0.0	0.258	16.4	LOS B	1.0	25.0	0.66	0.81	0.66	36.3
5	L2	25	0.0	28	0.0	0.258	13.9	LOS B	1.0	25.0	0.66	0.81	0.66	35.4
2	T1	50	0.0	56	0.0	0.258	8.1	LOS A	1.0	25.0	0.66	0.81	0.66	34.8
12	R2	70	0.0	79	0.0	0.258	8.0	LOS A	1.0	25.0	0.66	0.81	0.66	33.7
Approach		146	0.0	164	0.0	0.258	9.1	LOS A	1.0	25.0	0.66	0.81	0.66	34.4
All Vehicles		2318	1.9	2604	1.9	0.557	5.2	LOS A	4.3	108.9	0.34	0.47	0.34	36.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/36th St E - AM Peak Hour - 2035 Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) AM Peak Hour - Option C

Site Category: AM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	5.0	1	5.0	0.560	13.6	LOS B	3.7	96.5	0.47	0.51	0.47	37.2
3	L2	35	5.0	38	5.0	0.560	11.1	LOS B	3.7	96.5	0.47	0.51	0.47	36.3
8	T1	1070	5.0	1151	5.0	0.560	5.3	LOS A	3.7	96.9	0.46	0.51	0.46	36.0
18	R2	100	5.0	108	5.0	0.560	5.3	LOS A	3.7	96.9	0.46	0.50	0.46	35.2
Approach		1206	5.0	1297	5.0	0.560	5.5	LOS A	3.7	96.9	0.46	0.51	0.46	35.9
East: 36th St E														
1u	U	1	5.0	1	5.0	0.725	21.5	LOS C	4.8	125.5	0.84	1.06	1.28	33.4
1	L2	80	5.0	86	5.0	0.725	19.0	LOS B	4.8	125.5	0.84	1.06	1.28	32.6
6	T1	1	5.0	1	5.0	0.725	13.2	LOS B	4.8	125.5	0.84	1.06	1.28	32.5
16	R2	305	5.0	328	5.0	0.725	13.0	LOS B	4.8	125.5	0.84	1.06	1.28	31.0
Approach		387	5.0	416	5.0	0.725	14.3	LOS B	4.8	125.5	0.84	1.06	1.28	31.3
North: Meridian Ave E														
7u	U	1	6.0	1	6.0	0.334	13.1	LOS B	1.8	48.4	0.34	0.52	0.34	35.8
7	L2	105	6.0	113	6.0	0.334	10.6	LOS B	1.8	48.4	0.34	0.52	0.34	35.8
4	T1	595	6.0	640	6.0	0.334	4.7	LOS A	1.9	48.6	0.34	0.47	0.34	36.2
14	R2	25	6.0	27	6.0	0.334	4.8	LOS A	1.9	48.6	0.33	0.44	0.33	35.2
Approach		726	6.0	781	6.0	0.334	5.6	LOS A	1.9	48.6	0.34	0.48	0.34	36.1
West: 36th St E														
5u	U	1	10.0	1	10.0	0.155	15.3	LOS B	0.5	14.5	0.54	0.81	0.54	35.6
5	L2	50	10.0	54	10.0	0.155	12.8	LOS B	0.5	14.5	0.54	0.81	0.54	33.3
2	T1	1	10.0	1	10.0	0.155	7.0	LOS A	0.5	14.5	0.54	0.81	0.54	34.7
12	R2	45	10.0	48	10.0	0.155	6.8	LOS A	0.5	14.5	0.54	0.81	0.54	33.6
Approach		97	10.0	104	10.0	0.155	10.0	LOS B	0.5	14.5	0.54	0.81	0.54	33.5
All Vehicles		2416	5.5	2598	5.5	0.725	7.1	LOS A	4.8	125.5	0.49	0.60	0.56	35.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑↑	
Traffic Vol, veh/h	1195	5	5	725	5	10
Future Vol, veh/h	1195	5	5	725	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	5	6	6	7	7
Mvmt Flow	1285	5	5	780	5	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1290	0	1688
Stage 1	-	-	-	-	1288
Stage 2	-	-	-	-	400
Critical Hdwy	-	-	4.22	-	6.94
Critical Hdwy Stg 1	-	-	-	-	5.94
Critical Hdwy Stg 2	-	-	-	-	5.94
Follow-up Hdwy	-	-	2.26	-	3.57
Pot Cap-1 Maneuver	-	-	512	-	80
Stage 1	-	-	-	-	213
Stage 2	-	-	-	-	631
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	512	-	79
Mov Cap-2 Maneuver	-	-	-	-	79
Stage 1	-	-	-	-	213
Stage 2	-	-	-	-	625

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.1	28.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	170	-	-	512	-
HCM Lane V/C Ratio	0.095	-	-	0.011	-
HCM Control Delay (s/veh)	28.4	-	-	12.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q (veh)	0.3	-	-	0	-

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/Dechaux Rd E - AM Peak Hour - 2035
Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) AM Peak Hour - Option C

Site Category: PM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
8	T1	1220	4.0	1356	4.0	0.508	4.1	LOS A	3.2	81.7	0.02	0.37	0.02	37.9
18	R2	1	4.0	1	4.0	0.508	4.1	LOS A	3.2	81.5	0.02	0.37	0.02	36.8
Approach		1221	4.0	1357	4.0	0.508	4.1	LOS A	3.2	81.7	0.02	0.37	0.02	37.9
East: Dechaux Rd E														
1	L2	5	0.0	6	0.0	0.015	12.9	LOS B	0.0	1.2	0.53	0.73	0.53	35.0
16	R2	5	0.0	6	0.0	0.015	7.0	LOS A	0.0	1.2	0.53	0.73	0.53	33.3
Approach		10	0.0	11	0.0	0.015	10.0	LOS A	0.0	1.2	0.53	0.73	0.53	34.2
North: Meridian Ave E														
7	L2	1	6.0	1	6.0	0.309	9.9	LOS A	1.7	45.2	0.05	0.37	0.05	37.8
4	T1	725	6.0	806	6.0	0.309	4.1	LOS A	1.7	45.3	0.05	0.37	0.05	37.7
Approach		726	6.0	807	6.0	0.309	4.1	LOS A	1.7	45.3	0.05	0.37	0.05	37.7
All Vehicles		1957	4.7	2174	4.7	0.508	4.1	LOS A	3.2	81.7	0.04	0.37	0.04	37.8

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: M:\21\1.21147.00 - Edgewood 2021 On-Call Consulting Services\Task 07 - Meridian Avenue Corridor Study\Traffic Analysis\Traffic Operations
\New Alternatives - January 2024\Sidra\Meridian & Spencer- Dechaux Rd - Option C.sip9

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/Spencer St N - AM Peak Hour - 2035
Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) AM Peak Hour - Option C

Site Category: PM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3	L2	80	4.0	87	4.0	0.541	10.0	LOS A	3.9	99.3	0.12	0.41	0.12	37.4
8	T1	1210	4.0	1315	4.0	0.541	4.2	LOS A	3.9	99.3	0.12	0.39	0.12	37.3
18	R2	25	4.0	27	4.0	0.541	4.2	LOS A	3.8	99.3	0.11	0.37	0.11	36.4
Approach		1315	4.0	1429	4.0	0.541	4.5	LOS A	3.9	99.3	0.12	0.39	0.12	37.3
East: Spencer St N														
1	L2	25	13.0	27	13.0	0.069	14.3	LOS B	0.2	6.1	0.58	0.84	0.58	33.4
6	T1	1	13.0	1	13.0	0.069	8.4	LOS A	0.2	6.1	0.58	0.84	0.58	33.5
16	R2	10	13.0	11	13.0	0.069	8.3	LOS A	0.2	6.1	0.58	0.84	0.58	31.9
Approach		36	13.0	39	13.0	0.069	12.4	LOS B	0.2	6.1	0.58	0.84	0.58	33.0
North: Meridian Ave E														
7	L2	10	5.0	11	5.0	0.325	10.5	LOS B	1.6	41.2	0.28	0.44	0.28	36.8
4	T1	710	5.0	772	5.0	0.325	4.6	LOS A	1.6	41.2	0.28	0.43	0.28	36.7
14	R2	5	5.0	5	5.0	0.325	4.7	LOS A	1.6	41.2	0.28	0.43	0.28	35.4
Approach		725	5.0	788	5.0	0.325	4.7	LOS A	1.6	41.2	0.28	0.43	0.28	36.7
West: Spencer St N														
5	L2	1	0.0	1	0.0	0.023	11.8	LOS B	0.1	1.9	0.47	0.63	0.47	36.6
2	T1	1	0.0	1	0.0	0.023	6.0	LOS A	0.1	1.9	0.47	0.63	0.47	36.7
12	R2	15	0.0	16	0.0	0.023	5.9	LOS A	0.1	1.9	0.47	0.63	0.47	35.6
Approach		17	0.0	18	0.0	0.023	6.2	LOS A	0.1	1.9	0.47	0.63	0.47	35.7
All Vehicles		2093	4.5	2275	4.5	0.541	4.7	LOS A	3.9	99.3	0.18	0.41	0.18	37.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: M:\21\1.21147.00 - Edgewood 2021 On-Call Consulting Services\Task 07 - Meridian Avenue Corridor Study\Traffic Analysis\Traffic Operations\New Alternatives - January 2024\Sidra\Meridian & Spencer- Meridian Ave - Option C - Copy.sip9

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	10	5	905	1535	30
Future Vol, veh/h	10	10	5	905	1535	30
Conflicting Peds, #/hr	2	2	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	175	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	6	6	2	2	2	2
Mvmt Flow	11	11	6	1006	1706	33

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2242	874	1741
Stage 1	1725	-	-
Stage 2	517	-	-
Critical Hdwy	6.92	7.02	4.14
Critical Hdwy Stg 1	5.92	-	-
Critical Hdwy Stg 2	5.92	-	-
Follow-up Hdwy	3.56	3.36	2.22
Pot Cap-1 Maneuver	34	285	357
Stage 1	124	-	-
Stage 2	552	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	33	284	356
Mov Cap-2 Maneuver	99	-	-
Stage 1	122	-	-
Stage 2	551	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	33.8	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	356	-	147	-	-
HCM Lane V/C Ratio	0.016	-	0.151	-	-
HCM Control Delay (s/veh)	15.3	-	33.8	-	-
HCM Lane LOS	C	-	D	-	-
HCM 95th %tile Q (veh)	0	-	0.5	-	-

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/20th St E - PM Peak Hour - Future 2035 Baseline (Site Folder: General)]**

Future (2035) PM Peak Hour

Site Category: (None)
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	2.0	1	2.0	0.427	13.4	LOS B	2.5	62.4	0.41	0.50	0.41	37.4
3	L2	50	2.0	54	2.0	0.427	10.9	LOS B	2.5	62.4	0.41	0.50	0.41	36.5
8	T1	775	2.0	842	2.0	0.427	5.0	LOS A	2.5	62.8	0.41	0.50	0.41	36.5
18	R2	100	2.0	109	2.0	0.427	5.1	LOS A	2.5	62.8	0.41	0.49	0.41	35.4
Approach		926	2.0	1007	2.0	0.427	5.4	LOS A	2.5	62.8	0.41	0.49	0.41	36.4
East: 20th St E														
1u	U	1	1.0	1	1.0	0.208	15.2	LOS B	0.8	20.0	0.59	0.83	0.59	35.9
1	L2	70	1.0	76	1.0	0.208	12.7	LOS B	0.8	20.0	0.59	0.83	0.59	35.0
6	T1	5	1.0	5	1.0	0.208	6.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.9
16	R2	60	1.0	65	1.0	0.208	6.8	LOS A	0.8	20.0	0.59	0.83	0.59	33.8
Approach		136	1.0	148	1.0	0.208	9.9	LOS A	0.8	20.0	0.59	0.83	0.59	34.5
North: Meridian Ave E														
7u	U	1	2.0	1	2.0	0.689	13.5	LOS B	6.1	153.9	0.53	0.52	0.53	37.0
7	L2	95	2.0	103	2.0	0.689	11.0	LOS B	6.1	153.9	0.53	0.52	0.53	36.0
4	T1	1355	2.0	1473	2.0	0.689	5.2	LOS A	6.1	154.4	0.53	0.51	0.53	36.1
14	R2	100	2.0	109	2.0	0.689	5.2	LOS A	6.1	154.4	0.52	0.49	0.52	35.0
Approach		1551	2.0	1686	2.0	0.689	5.6	LOS A	6.1	154.4	0.53	0.51	0.53	36.0
West: 20th St E														
5u	U	1	0.0	1	0.0	0.330	18.0	LOS B	1.5	37.5	0.76	0.92	0.83	34.6
5	L2	70	0.0	76	0.0	0.330	15.5	LOS B	1.5	37.5	0.76	0.92	0.83	33.7
2	T1	10	0.0	11	0.0	0.330	9.7	LOS A	1.5	37.5	0.76	0.92	0.83	33.6
12	R2	70	0.0	76	0.0	0.330	9.6	LOS A	1.5	37.5	0.76	0.92	0.83	32.6
Approach		151	0.0	164	0.0	0.330	12.4	LOS B	1.5	37.5	0.76	0.92	0.83	33.2
All Vehicles		2764	1.8	3004	1.8	0.689	6.1	LOS A	6.1	154.4	0.50	0.54	0.51	35.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	15	835	5	20	1465
Future Vol, veh/h	5	15	835	5	20	1465
Conflicting Peds, #/hr	9	10	0	9	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	6	17	949	6	23	1665

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1850	498	0	0	965
Stage 1	962	-	-	-	-
Stage 2	888	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23
Pot Cap-1 Maneuver	67	523	-	-	703
Stage 1	336	-	-	-	-
Stage 2	367	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	64	515	-	-	697
Mov Cap-2 Maneuver	185	-	-	-	-
Stage 1	333	-	-	-	-
Stage 2	352	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	356	697
HCM Lane V/C Ratio	-	-	0.064	0.033
HCM Control Delay (s/veh)	-	-	15.8	10.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q (veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary

4: SR-161 & 24th St. E.

Meridian Avenue

With Project (2035) Weekday PM Peak Hour - Option C

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	120	135	40	140	50	150	630	50	115	1110	255
Future Volume (veh/h)	170	120	135	40	140	50	150	630	50	115	1110	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	189	133	150	44	156	56	167	700	56	128	1233	283
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	3	3	3
Cap, veh/h	214	167	188	65	165	59	192	1740	139	154	1431	324
Arrive On Green	0.12	0.21	0.21	0.04	0.13	0.13	0.11	0.52	0.52	0.09	0.50	0.50
Sat Flow, veh/h	1767	793	895	1781	1310	470	1781	3332	266	1767	2852	647
Grp Volume(v), veh/h	189	0	283	44	0	212	167	373	383	128	756	760
Grp Sat Flow(s),veh/h/ln	1767	0	1688	1781	0	1780	1781	1777	1821	1767	1763	1736
Q Serve(g_s), s	13.7	0.0	20.7	3.2	0.0	15.4	12.0	16.5	16.5	9.3	48.7	50.4
Cycle Q Clear(g_c), s	13.7	0.0	20.7	3.2	0.0	15.4	12.0	16.5	16.5	9.3	48.7	50.4
Prop In Lane	1.00		0.53	1.00		0.26	1.00		0.15	1.00		0.37
Lane Grp Cap(c), veh/h	214	0	355	65	0	225	192	928	951	154	884	871
V/C Ratio(X)	0.89	0.00	0.80	0.67	0.00	0.94	0.87	0.40	0.40	0.83	0.86	0.87
Avail Cap(c_a), veh/h	223	0	355	85	0	225	200	928	951	250	884	871
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	0.0	48.7	61.8	0.0	56.3	57.1	18.8	18.8	58.4	28.3	28.7
Incr Delay (d2), s/veh	30.9	0.0	12.0	12.7	0.0	44.5	30.7	1.3	1.3	11.8	10.4	11.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	0.0	9.8	1.7	0.0	9.6	7.0	7.0	7.2	4.6	22.3	23.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	87.2	0.0	60.7	74.5	0.0	100.9	87.8	20.1	20.1	70.2	38.7	40.5
LnGrp LOS	F		E	E		F	F	C	C	E	D	D
Approach Vol, veh/h	472			256			923			1644		
Approach Delay, s/veh	71.3			96.3			32.3			42.0		
Approach LOS	E			F			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.6	70.1	20.3	21.0	15.9	72.8	9.4	31.9				
Change Period (Y+Rc), s	4.6	4.9	4.6	4.6	4.6	4.9	4.6	4.6				
Max Green Setting (Gmax), s	14.6	63.9	16.4	16.4	18.4	60.1	6.2	26.6				
Max Q Clear Time (g_c+I1), s	14.0	52.4	15.7	17.4	11.3	18.5	5.2	22.7				
Green Ext Time (p_c), s	0.0	7.5	0.0	0.0	0.2	5.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh	47.7											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	15	0	0	15	0	825	30	0	1260	25
Future Vol, veh/h	0	0	15	0	0	15	0	825	30	0	1260	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	Yield	-	-	Free	-	-	Free
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	95	95	89	89	95	95	95	89	95	89
Heavy Vehicles, %	0	0	1	1	0	0	1	1	1	2	1	2
Mvmt Flow	0	0	16	0	0	17	0	868	32	0	1326	28
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	663	-	-	434	-	0	-	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.92	-	-	6.9	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.31	-	-	3.3	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	406	0	0	576	0	-	0	0	-	0
Stage 1	0	0	-	0	0	-	0	-	0	0	-	0
Stage 2	0	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %												
Mov Cap-1 Maneuver	-	-	406	-	-	576	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	14.2		11.4		0		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBT EBLn1WBLn1		SBT									
Capacity (veh/h)	- 406 576		-									
HCM Lane V/C Ratio	- 0.039 0.029		-									
HCM Control Delay (s/veh)	- 14.2 11.4		-									
HCM Lane LOS	- B B		-									
HCM 95th %tile Q (veh)	- 0.1 0.1		-									

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/32nd St E - AM Peak Hour - 2035 Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) AM Peak Hour - Option C

Site Category: AM Future with Project Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	4.0	1	4.0	0.640	13.8	LOS B	4.9	125.2	0.53	0.54	0.53	35.9
3	L2	70	4.0	73	4.0	0.640	11.3	LOS B	4.9	125.2	0.53	0.54	0.53	35.6
8	T1	1320	4.0	1375	4.0	0.640	5.5	LOS A	4.9	125.8	0.53	0.52	0.53	34.4
18	R2	40	4.0	42	4.0	0.640	5.5	LOS A	4.9	125.8	0.53	0.51	0.53	34.0
Approach		1431	4.0	1491	4.0	0.640	5.8	LOS A	4.9	125.8	0.53	0.52	0.53	34.4
East: 32nd St E														
1u	U	1	13.0	1	13.0	0.189	17.5	LOS B	0.7	20.1	0.71	0.85	0.71	32.9
1	L2	20	13.0	21	13.0	0.189	15.0	LOS B	0.7	20.1	0.71	0.85	0.71	32.0
6	T1	45	13.0	47	13.0	0.189	9.2	LOS A	0.7	20.1	0.71	0.85	0.71	33.8
16	R2	15	13.0	16	13.0	0.189	9.1	LOS A	0.7	20.1	0.71	0.85	0.71	30.4
Approach		81	13.0	84	13.0	0.189	10.7	LOS B	0.7	20.1	0.71	0.85	0.71	32.8
North: Meridian Ave E														
7u	U	15	5.0	16	5.0	0.355	13.2	LOS B	1.9	49.1	0.35	0.51	0.35	35.4
7	L2	70	5.0	73	5.0	0.355	10.7	LOS B	1.9	49.1	0.35	0.51	0.35	34.5
4	T1	695	5.0	724	5.0	0.355	4.8	LOS A	1.9	49.3	0.35	0.48	0.35	35.4
14	R2	20	5.0	21	5.0	0.355	4.9	LOS A	1.9	49.3	0.34	0.45	0.34	34.7
Approach		800	5.0	833	5.0	0.355	5.5	LOS A	1.9	49.3	0.35	0.48	0.35	35.3
West: 32nd St E														
5u	U	1	4.0	1	4.0	0.136	14.8	LOS B	0.5	12.1	0.52	0.72	0.52	36.2
5	L2	35	4.0	36	4.0	0.136	12.3	LOS B	0.5	12.1	0.52	0.72	0.52	34.1
2	T1	50	4.0	52	4.0	0.136	6.5	LOS A	0.5	12.1	0.52	0.72	0.52	34.8
12	R2	10	4.0	10	4.0	0.136	6.4	LOS A	0.5	12.1	0.52	0.72	0.52	33.6
Approach		96	4.0	100	4.0	0.136	8.7	LOS A	0.5	12.1	0.52	0.72	0.52	34.5
All Vehicles		2408	4.6	2508	4.6	0.640	6.0	LOS A	4.9	125.8	0.48	0.53	0.48	34.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/36th St E - PM Peak Hour - 2035 Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) PM Peak Hour - Option C

Site Category: PM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3u	U	1	2.0	1	2.0	0.370	15.2	LOS B	2.1	53.7	0.64	0.67	0.64	36.6
3	L2	25	2.0	27	2.0	0.370	12.7	LOS B	2.1	53.7	0.64	0.67	0.64	35.6
8	T1	570	2.0	613	2.0	0.370	6.8	LOS A	2.2	55.2	0.64	0.65	0.64	35.3
18	R2	30	2.0	32	2.0	0.370	6.7	LOS A	2.2	55.2	0.64	0.64	0.64	34.6
Approach		626	2.0	673	2.0	0.370	7.0	LOS A	2.2	55.2	0.64	0.65	0.64	35.3
East: 36th St E														
1u	U	1	3.0	1	3.0	0.392	15.0	LOS B	1.8	45.4	0.60	0.82	0.64	36.5
1	L2	95	3.0	102	3.0	0.392	12.5	LOS B	1.8	45.4	0.60	0.82	0.64	35.6
6	T1	5	3.0	5	3.0	0.392	6.7	LOS A	1.8	45.4	0.60	0.82	0.64	35.5
16	R2	180	3.0	194	3.0	0.392	6.5	LOS A	1.8	45.4	0.60	0.82	0.64	33.9
Approach		281	3.0	302	3.0	0.392	8.6	LOS A	1.8	45.4	0.60	0.82	0.64	34.5
North: Meridian Ave E														
7u	U	1	2.0	1	2.0	0.576	13.3	LOS B	4.3	109.1	0.45	0.61	0.45	34.7
7	L2	465	2.0	500	2.0	0.576	10.8	LOS B	4.3	109.1	0.45	0.61	0.45	34.4
4	T1	790	2.0	849	2.0	0.576	5.0	LOS A	4.3	109.5	0.45	0.50	0.45	35.7
14	R2	50	2.0	54	2.0	0.576	5.0	LOS A	4.3	109.5	0.45	0.47	0.45	34.9
Approach		1306	2.0	1404	2.0	0.576	7.0	LOS A	4.3	109.5	0.45	0.54	0.45	35.2
West: 36th St E														
5u	U	1	4.0	1	4.0	0.130	16.6	LOS B	0.5	13.0	0.66	0.84	0.66	35.7
5	L2	20	4.0	22	4.0	0.130	14.1	LOS B	0.5	13.0	0.66	0.84	0.66	34.0
2	T1	5	4.0	5	4.0	0.130	8.3	LOS A	0.5	13.0	0.66	0.84	0.66	34.7
12	R2	40	4.0	43	4.0	0.130	8.1	LOS A	0.5	13.0	0.66	0.84	0.66	33.6
Approach		66	4.0	71	4.0	0.130	10.1	LOS B	0.5	13.0	0.66	0.84	0.66	33.8
All Vehicles		2279	2.2	2451	2.2	0.576	7.3	LOS A	4.3	109.5	0.53	0.61	0.53	35.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑	
Traffic Vol, veh/h	620	5	10	925	5	10
Future Vol, veh/h	620	5	10	925	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	63	63	63	63
Heavy Vehicles, %	2	2	3	3	0	0
Mvmt Flow	984	8	16	1468	8	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	992
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.16
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.23
Pot Cap-1 Maneuver	-	-	687
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	687
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.1	28.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	177	-	-	687	-
HCM Lane V/C Ratio	0.135	-	-	0.023	-
HCM Control Delay (s/veh)	28.5	-	-	10.4	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q (veh)	0.5	-	-	0.1	-

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/Dechaux Rd E - PM Peak Hour - 2035
Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) PM Peak Hour - Option C

Site Category: PM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
8	T1	620	2.0	660	2.0	0.243	4.1	LOS A	1.0	25.9	0.02	0.37	0.02	38.0
18	R2	1	2.0	1	2.0	0.243	4.1	LOS A	1.0	25.8	0.02	0.37	0.02	36.9
Approach		621	2.0	661	2.0	0.243	4.1	LOS A	1.0	25.9	0.02	0.37	0.02	38.0
East: Dechaux Rd E														
1	L2	1	0.0	1	0.0	0.007	11.4	LOS B	0.0	0.5	0.39	0.58	0.39	36.8
16	R2	5	0.0	5	0.0	0.007	5.4	LOS A	0.0	0.5	0.39	0.58	0.39	35.1
Approach		6	0.0	6	0.0	0.007	6.4	LOS A	0.0	0.5	0.39	0.58	0.39	35.4
North: Meridian Ave E														
7	L2	1	3.0	1	3.0	0.367	9.9	LOS A	2.1	54.3	0.02	0.37	0.02	38.1
4	T1	930	3.0	989	3.0	0.367	4.1	LOS A	2.1	54.3	0.02	0.37	0.02	38.0
Approach		931	3.0	990	3.0	0.367	4.1	LOS A	2.1	54.3	0.02	0.37	0.02	38.0
All Vehicles		1558	2.6	1657	2.6	0.367	4.1	LOS A	2.1	54.3	0.02	0.37	0.02	38.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: M:\21\1.21147.00 - Edgewood 2021 On-Call Consulting Services\Task 07 - Meridian Avenue Corridor Study\Traffic Analysis\Traffic Operations
\New Alternatives - January 2024\Sidra\Meridian & Spencer- Dechaux Rd - Option C.sip9

MOVEMENT SUMMARY

 **Site: 101 [Meridian Ave E/Spencer St N - PM Peak Hour - 2035
Multi Lane (Site Folder: General)]**

Meridian Avenue Corridor Study
Future (2035) PM Peak Hour - Option C

Site Category: PM Future with Project
Roundabout

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] ft				
South: Meridian Ave E														
3	L2	10	1.0	11	1.0	0.251	9.9	LOS A	1.2	29.8	0.07	0.38	0.07	38.0
8	T1	605	1.0	637	1.0	0.251	4.1	LOS A	1.2	29.8	0.07	0.38	0.07	37.7
18	R2	35	1.0	37	1.0	0.251	4.1	LOS A	1.2	29.8	0.07	0.38	0.07	36.7
Approach		650	1.0	684	1.0	0.251	4.2	LOS A	1.2	29.8	0.07	0.38	0.07	37.7
East: Spencer St N														
1	L2	15	0.0	16	0.0	0.031	11.5	LOS B	0.1	2.3	0.41	0.68	0.41	35.5
6	T1	1	0.0	1	0.0	0.031	5.7	LOS A	0.1	2.3	0.41	0.68	0.41	35.3
16	R2	10	0.0	11	0.0	0.031	5.5	LOS A	0.1	2.3	0.41	0.68	0.41	33.8
Approach		26	0.0	27	0.0	0.031	9.0	LOS A	0.1	2.3	0.41	0.68	0.41	34.9
North: Meridian Ave E														
7	L2	5	3.0	5	3.0	0.370	10.0	LOS B	2.0	51.4	0.13	0.38	0.13	37.6
4	T1	920	3.0	968	3.0	0.370	4.2	LOS A	2.0	51.4	0.13	0.37	0.13	37.4
14	R2	5	3.0	5	3.0	0.370	4.2	LOS A	2.0	51.4	0.13	0.37	0.13	36.1
Approach		930	3.0	979	3.0	0.370	4.2	LOS A	2.0	51.4	0.13	0.37	0.13	37.4
West: Spencer St N														
5	L2	5	0.0	5	0.0	0.035	12.2	LOS B	0.1	2.7	0.49	0.69	0.49	36.1
2	T1	1	0.0	1	0.0	0.035	6.4	LOS A	0.1	2.7	0.49	0.69	0.49	36.2
12	R2	20	0.0	21	0.0	0.035	6.2	LOS A	0.1	2.7	0.49	0.69	0.49	35.1
Approach		26	0.0	27	0.0	0.035	7.4	LOS A	0.1	2.7	0.49	0.69	0.49	35.3
All Vehicles		1632	2.1	1718	2.1	0.370	4.3	LOS A	2.0	51.4	0.12	0.39	0.12	37.5

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

Intersection and Approach LOS values are based on average delay for all movements (v/c not used).

Roundabout Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: HCM Queue Formula.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: M:\21\1.21147.00 - Edgewood 2021 On-Call Consulting Services\Task 07 - Meridian Avenue Corridor Study\Traffic Analysis\Traffic Operations\New Alternatives - January 2024\Sidra\Meridian & Spencer- Meridian Ave - Option C - Copy.sip9

Appendix F: Alternatives Analysis

Appendix F: Level 1 Screening

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1
Alternatives Analysis / Feasibility Screening Process - Level 1 Screening Process

ID	Improvement Type	Project Limits	Project Description	Would the Improvement meet the project mobility goals?					Discussion of Feasibility/Effectiveness	Included in Alternative?	Reason for Inclusion/Exclusion
				Vehicular	Ped/Bike	Transit	Safety	Access			
Corridor Capacity Improvements											
1	3-lane cross section (no change)	Segment 1	Retain one travel lane in each direction with a center two-way left-turn lane (60' R/W)	No	Yes	No	No	Yes	Maintaining the existing 3-lane configuration would limit right-of-way impacts, provide unrestricted access to adjacent properties, and improve pedestrian and bicycle conditions from current conditions.	No	This configuration was not selected as it would not provide vehicular capacity improvements along the corridor and would not provide safety benefits associated with restricted turning movements along the corridor.
2	Unbalanced 3-lane cross section	Segment 1	Provide two northbound and one southbound travel lane (continuation of lane assignments south of 36th Street) [80'-90' R/W]	Partially	Yes	Partially	No	Yes	Providing two northbound and one southbound travel lanes would increase capacity in the northbound direction but would not provide benefits in the southbound direction. A center turn lane would provide unrestricted access to adjacent properties and sidewalk facilities would improve conditions for pedestrians.	No	This configuration was not selected as it would not provide operational benefits in the southbound direction and would not address the congestion issues occurring in the southbound direction during the PM peak hour.
3	4-lane cross section	Segment 1	Provide two northbound and two southbound travel lanes with a central access management median (80'-90' R/W)	Yes	Yes	Yes	Yes	No	Two travel lanes in each direction would improve vehicular and transit operations and a center median would eliminate some turning movement conflicts.	Yes (Alt. C)	This configuration was selected for Alternative C as the center turn lane provided in other configurations is not required due to the roundabout configurations at major intersections.
4	5-lane cross section (without access management)	Segment 1	Provide two northbound and two southbound travel lanes with minimal access management treatments (80'-90' R/W)	Yes	Yes	Yes	No	Yes	Two travel lanes in each direction would improve vehicular and transit operations. A center turn lane would allow for unrestricted access to adjacent business while allowing left-turn movements to queue outside of the travel lane.	Yes (Alt. A)	This configuration was selected for Alternative A as it would maintain left-turn access to all driveway locations along the corridor.
5	5-lane cross section (with access management)	Segment 1	Provide two northbound and two southbound travel lanes with access management treatments (80'-90' R/W)	Yes	Yes	Yes	Yes	No	Two travel lanes in each direction would improve vehicular and transit operations; access management treatments would eliminate some turning movement conflicts (but would restrict access); and a center lane would allow left-turn movements to queue outside of the travel lane.	Yes (Alt. B)	This configuration was selected for Alternatives B as it provides the widest range of operational, safety, and alternative mode benefits.
Intersection Treatments											
1	Install/Modify Signal(s)	Segment 1 (24th St, 32nd St, 36th St)	Install/modify traffic signals at major intersections	Yes	No	No	No	No	Roundabouts would limit vehicular conflict points and would improve flow along the corridor. These treatments would also slow vehicles and provide dedicated pedestrian crossing locations, improving roadway safety. Installation of a roundabout may require the elimination of existing driveways near the intersection.	Yes (Alt. A and B)	This intersection treatment was selected for Alternatives A and B to evaluate the effectiveness with which these improvements would reduce minor street delay at the study intersections. Traffic signals would have a lower installation cost compared to roundabouts.
2	Install Roundabout(s)	Segment 1 (24th St, 32nd St, 36th St)	Install roundabouts at major intersections	Yes	Yes	Yes	Yes	No	Roundabouts would limit vehicular conflict points and would improve flow along the corridor. These treatments would also slow vehicles and provide dedicated pedestrian crossing locations, improving roadway safety. Installation of a roundabout may require the elimination of existing driveways near the intersection.	Yes (Alt. C)	This intersection treatment was selected for Alternative C as it provides the greatest vehicular operational improvements, while also reducing the severity of vehicular conflict points. Roundabouts would have lower ongoing maintenance costs compared to traffic signals.
3	Signal Timing/Phasing Coordination	Segment 1 (24th St, 36th St)	Update traffic signal timing/phasing and coordination along the corridor to better serve future traffic volumes	Yes	No	Yes	No	No	Signal timing improvements would improve vehicular flow along the corridor but would not measurably improve pedestrian/bicycle facilities or roadway safety.	Yes (Alt. A and B)	This improvement was incorporated in Alternatives A and B to improve coordination between the signals along the corridor, given that the existing distances between signals would be improved.
4	Adaptive Traffic Control	Segment 1 (24th St, 36th St)	Install adaptive traffic signal control equipment at signalized intersections	Yes	No	Yes	No	No	Adaptive signal control would improve vehicular flow along the corridor but would not measurably improve pedestrian/bicycle facilities or roadway safety.	No	This improvement was not selected due to elevated costs associated with the implementation and maintenance of an adaptive traffic control system.
Access Management/Safety Measures											
1	Consolidate Driveways	Segment 1	Consolidate driveway access points along corridor, where feasible	No	Yes	No	Yes	No	Consolidating driveways would improve pedestrian safety by minimizing vehicle/pedestrian conflict points, but may reduce site accessibility.	Yes (Alt. B and C)	This improvement was incorporated into Alternatives B and C to reduce the number of the conflict points along the corridor.
2	Center Raised Median	Segment 1	Install a center raised median along the corridor to restrict left-turn movements	No	No	No	Yes	No	A center raised median would limit vehicular conflict points but would reduce site accessibility for left-turn movements.	Yes (Alt. B and C)	This improvement was incorporated into Alternatives B and C to limit the number of locations for left-turns along the corridor and reduce the number of conflict points.
3	Two-Way Left-Turn Lane	Segment 1	Install a center two-way left-turn lane to provide access/egress to/from properties along the corridor	No	No	No	No	Yes	A two-way left-turn lane would maintain left-turn access for all driveway locations, but creates additional vehicular conflict points.	Yes (Alt. A)	This improvement was incorporated into Alternative A to provide convenient left-turn access and egress to driveways along the corridor.
4	Mid-Block U-Turn Locations	Segment 1	Provide breaks in the center median to allow for mid-block U-turns	No	No	No	Yes	Yes	Mid-block U-turn locations create dedicated locations for U-turn movements to provide left-turn access to driveways blocked by a center raised median.	No	This improvement was not selected as the U-turn locations would require extensive widening of the roadway which would intrude into property owned by businesses and developments along the corridor.
5	U-Turns at Intersections	Segment 1	Permit U-turn at intersections at both ends of major blocks	No	No	No	Yes	Yes	Permitting U-turn movements at intersections provides access to driveways blocked by a center raised median.	Yes (Alt. B and C)	This improvement was incorporated into Alternatives A and B to improve left-turn access to driveways along the corridor which would be restricted due to the installation of a raised median.
6	Minor Street Left-Turn Restrictions	Segment 1	Restrict left-turn and through movements from minor street approaches at 4-way intersection (e.g., 29th St)	No	No	No	Yes	No	Restricting left-turn movements from minor street at intersections would reduce the number and severity of vehicle conflict points at these intersections.	No	This improvement was not incorporated into the design alternatives as it would limit access to and connectivity of the parallel roadways adjacent to the corridor.
7	Non-Linear (Meandering) Median	Segment 1	Provide a narrow center median (with corresponding edge-line buffers) which are used to shift the travel lanes back and forth along the roadway	No	Yes	No	Yes	No	A non-linear median would act as a traffic calming measure (similar to a chicane) by breaking up long, straight blocks with shifting travel lanes.	Yes (Alt. C)	This improvement was incorporated into Alternative C to serve as a traffic calming measure to slow speeds along the corridor. The lack of a center turn lane in this alternative allows for the additional roadway width to be used to shift the travel lanes.
8	Chrisella Road Realignment	Segment 1	Realign Chrisella Rd to intersect 36th St, east of Meridian Ave. Install a cul-de-sac at the end of the existing Chrisella Rd alignment to provide access to existing businesses/homes.	Yes	No	No	Yes	No	Realignment of Chrisella Road reduces the number of vehicular conflict points at Meridian Avenue & 36th Street and improves traffic flow along the westbound approach.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to reduce the number of legs and turning movements at this intersection.
9	Lighting Improvements	Segment 1	Install new lighting/replace existing lighting as needed to sufficiently light corridor.	No	No	No	Yes	No	Improved roadway lighting provides roadway users with better visibility during the evening and night hours.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to improve visibility of vehicles, pedestrians, and bicyclists.

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1
Alternatives Analysis / Feasibility Screening Process - Level 1 Screening Process

ID	Improvement Type	Project Limits	Project Description	Would the improvement meet the project mobility goals?					Discussion of Feasibility/Effectiveness	Included in Alternative?	Reason for Inclusion/Exclusion
				Vehicular	Ped/Bike	Transit	Safety	Access			
Transit Improvements											
1	Bus Rapid Transit (BRT)/Business Access Lane (BAL)	Segment 1	Restrict the northbound and southbound curb lanes for transit and right-turn use only. May allow general purpose traffic during non-peak periods of the day.	No	No	Yes	No	No	BRT/BAL facilities would improve transit travel times, but would reduce vehicular capacity along the roadway.	No	This improvement was not selected due to low transit ridership along Pierce Transit Route 402. The reduction in vehicular capacity required for the BRT/BAL lanes is not justified by the current level of ridership. Should ridership increase in the future, the corridor design shall accommodate and not preclude the installation of BRT/BAL lanes.
2	In-Lane Bus Stops	Segment 1	Install in-lane bus stops with curb extensions that allow the transit buses to stop adjacent to the curb for passenger loading and unloading without pulling to the side of the road	No	No	Yes	No	No	In-lane bus stops will allow faster transit service times as buses do not have to pull into and out of traffic when making a stop.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to improve the speed of transit service along the corridor.
Pedestrian Improvements											
1	Wide Sidewalks	Segment 1	Provide wide (6'+) sidewalks along one or both sides of the roadway	No	Yes	No	No	No	Wide sidewalks provide a more comfortable pedestrian environment along the roadway.	Yes (Alt. B)	This improvement was incorporated into Alternatives A and C to improve pedestrian comfort along the corridor.
2	Landscape Buffer	Segment 1	Provide a landscaped buffer between the sidewalk and the roadway	No	Yes	No	No	No	Landscaped buffers create additional separation between vehicles and pedestrians, leading to a more comfortable walking environment.	Yes (Alt. A and B)	This improvement was incorporated into Alternative B to improve pedestrian comfort along the corridor.
3	Median Refuge Island	Segment 1	Provide protected space in the center of the roadway to facilitate pedestrian crossings	No	Yes	No	Yes	No	Median refuge island provide a safe place for pedestrians to stop in the center of the roadway when traversing long crossings.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to shorten pedestrian crossing distances along the corridor.
4	Midblock Crossing Locations	Segment 1	Provide Rectangular Rapid Flashing Beacon (RRFB) or Pedestrian Hybrid Beacon (PHB) improvements at mid-block crossing locations.	No	Yes	No	Yes	No	Midblock crossing locations provide pedestrians with safe locations to cross the roadway between intersections, where additional signage increases visibility.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to improve pedestrian visibility and shorten the distance between dedicated crossing locations.
5	Curb Ramp Improvements	Segment 1	Improve non-compliant pedestrian curb ramps within the project limits to meet Americans with Disabilities Act (ADA) standards.	No	Yes	No	No	Yes	ADA curb ramp improvements will improve accessibility along the corridor.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to provide a continuous ADA route along the corridor.
Bicycle Improvements											
1	Class IV Buffered Bike Lanes	Segment 1	Provide an on-street 5' bike lane separated from vehicular traffic by a 2' buffer	No	Yes	No	Yes	No	Class IV buffered bike lines allow for physical separation between bicyclists and vehicular traffic along the roadway	Yes (Alt. A and C)	This improvement was incorporated into Alternatives A and C to provide an on-street bicycle facility with separation from vehicle traffic.
2	Off-Street Shared Use Path	Segment 1	Provide a one-way or two-way shared-use path separated from vehicular travel (adjacent to the sidewalk).	No	Yes	No	Yes	No	An off-street shared use path provides additional safety for bicyclists, as the dedicated path is located outside of the roadway.	Yes (Alt. B)	This improvement was incorporated into Alternative B to provide an off-street bicycle facility with vertical separation from vehicle traffic.

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2
Alternatives Analysis / Feasibility Screening Process - Level 1 Screening Process

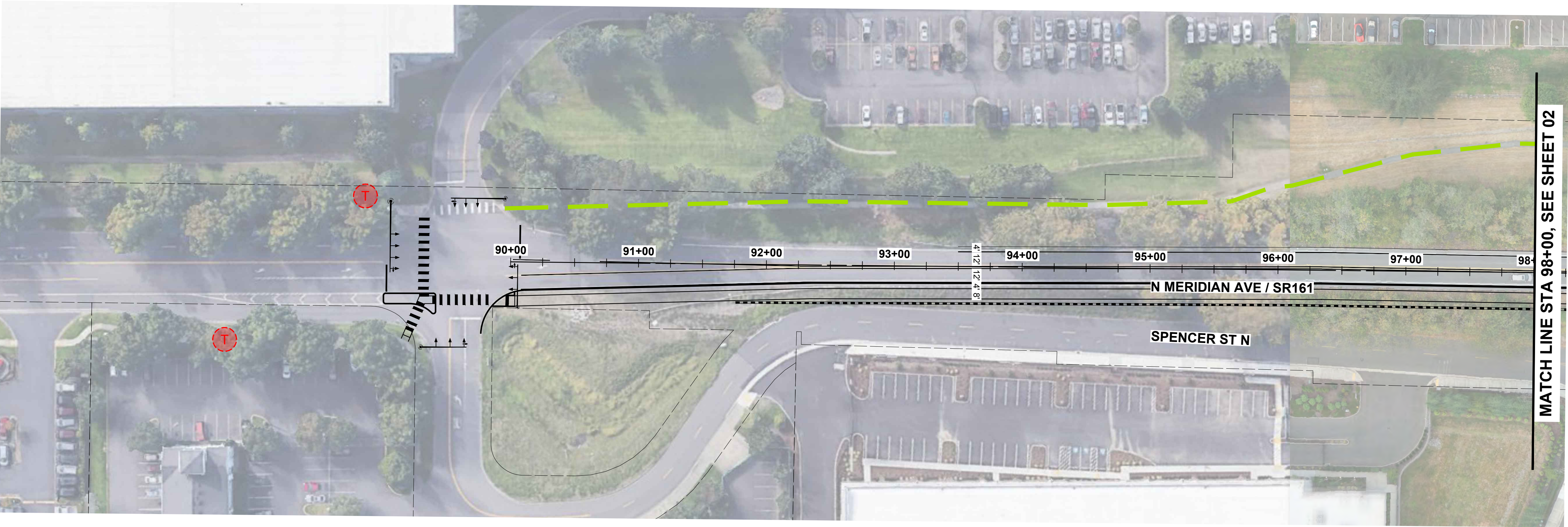
ID	Improvement Type	Project Limits	Project Description	Would the Improvement meet the project mobility goals?					Discussion of Feasibility/Effectiveness	Included in Alternative?	Reason for Inclusion/Exclusion
				Vehicular	Ped/Bike	Transit	Safety	Access			
Corridor Capacity Improvements											
1	2-lane cross section along entire segment (lane removal)	Segment 2	Remove one of the northbound travel lanes to provide one lane in each direction along the entire segment	No	Yes	No	Yes	No	Eliminating one of the northbound travel lanes would provide space for the provision of pedestrian/bicycle facilities within the existing right-of-way, but would require the elimination of the northbound truck climbing lane.	No	This configuration was not selected as it would remove the northbound truck climbing lane and result in additional delay and congestion in the northbound direction.
2	2-lane/3-lane cross section (no change)	Segment 2	Retain two northbound and one southbound travel lanes	No	Yes	No	Yes	No	Maintaining the existing 3-lane configuration would limit right-of-way impacts to adjacent slopes and would allow for the provision of an off-street shared-use path for pedestrians and bicyclists. This would improve pedestrian/bicycle safety but would not improve roadway operations.	No	This configuration was selected for Alternative A to allow for the provision of pedestrian/bicycle facilities along the corridor.
3	2-lane/3-lane cross section (2 SB lanes, 1 NB lanes)	Segment 2	Retain the three-lane cross-section but switch the lane assignments to provide one northbound travel lane and two southbound travel lanes	No	Yes	No	No	No	Maintaining the existing 3-lane configuration would limit right-of-way impacts to adjacent slopes and would allow for the provision of an off-street shared-use path for pedestrians and bicyclists. This would require the removal of the northbound truck climbing	No	This configuration was not selected as it would remove the northbound truck climbing lane and result in additional delay and congestion in the northbound direction.
4	3-lane cross section along entire segment	Segment 2	Extend the second northbound travel lane south to Spencer St	Yes	No	Yes	No	No	Extending the second travel lane south to Spencer Street would eliminate the northbound bottleneck at the UPRR bridge crossing	Yes (Alt. A)	The extension of the second northbound travel lane was included as an additional option to consider for Alternative A as this would eliminate the bottleneck associated with the short segment where only one northbound lane is provided.
5	4-lane cross section	Segment 2	Provide two northbound and two southbound travel lanes	Yes	No	Yes	No	No	Two travel lanes in each direction would improve vehicular and transit operations but would not allow for off-street active transportation facilities. Shoulders could be incorporated into the roadway to provide space for pedestrians and bicyclists, but would not provide a comfortable non-motorized environment.	Yes (Alt. B and C)	This configuration was selected for Alternatives B and C to increase vehicular capacity along the corridor.
Intersection Treatments											
1	Install Signal(s)	Segment 2 (Dechaux Rd and Spencer St)	Install signals at major intersections	Yes	Yes	Yes	Yes	No	Signals would provide improved operations for minor street approaches at these intersections, which experience long delays during the peak hours.	Yes (Alt. A and B)	This intersection treatment was selected for Alternatives A and B to evaluate how the installation of signals would affect flow along the corridor. Traffic signals would have a lower installation cost compared to roundabouts.
2	Install Roundabout(s)	Segment 2 (Dechaux Rd and Spencer St)	Install roundabouts at major intersections	Yes	Yes	Yes	Yes	No	Roundabouts would limit vehicular conflict points and would improve minor street approach delay at these intersections.	Yes (Alt. C)	This intersection treatment was selected for Alternative C to evaluate how the installation of roundabouts would affect flow along the corridor. Roundabouts would have lower ongoing maintenance costs compared to traffic signals.
Access Management/Safety Measures											
1	Chrisella Road Realignment	Segment 2	Realign Chrisella Rd to intersect 36th St, east of Meridian Ave. Install a cul-de-sac at the end of the existing Chrisella Rd alignment to provide access to existing businesses/homes.	Yes	No	No	Yes	No	Realignment of Chrisella Road reduces the number of vehicular conflict points at Meridian Avenue & 36th Street and improves traffic flow along the westbound approach.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to reduce the number of legs and turning movements at this intersection.
2	Dechaux Road Intersection Realignment	Segment 2	Realign Dechaux Rd to the north so that it intersects Meridian Avenue at a 90 degree angle.	Yes	No	No	Yes	No	Realignment of Dechaux Road will improve visibility for vehicles turning onto Meridian Road.	Yes (Alt. A, B, and C)	This improvement was incorporated into all alternatives to improve sight distance and safety at this intersection.
3	Full-Access Left Turns (no change)	Segment 2 (102nd Ave)	Maintain full-access left-turn movements to and from 102nd Ave	Yes	No	No	No	Yes	This configuration would allow for convenient access to the homes along this roadway, but would require southbound left-turn movements to be made from the single southbound travel lane (may result in backups in the southbound traffic flow).	Yes (Alt. A)	This improvement was incorporated into Alternative A as it would provide full access to 102nd Ave.
4	Right-In, Right-Out Restrictions	Segment 2 (102nd Ave)	Restrict left-turn movements to and from 102nd Ave	Yes	No	No	Yes	No	This configuration would restrict access to 102nd Ave, but would eliminate potential turning movement conflicts at this intersection.	Yes (Alt. B)	This improvement was incorporated into Alternative B as it would reduce vehicular turning movement conflicts at 102nd Ave.
5	Left-Turn Acceleration/Deceleration Lane	Segment 2 (102nd Ave)	Provide a left-turn acceleration/deceleration lane along southbound Meridian Avenue at 102nd Ave	Yes	No	No	Yes	Yes	This configuration would move southbound left-turn movements out of the travel lane to reduce the potential for rear end collisions.	Yes (Alt. C)	This improvement was incorporated into Alternative C as it would maintain full access to 102nd Ave and would move southbound left-turn vehicles out of the through travel lane.
Union Pacific Railroad (UPRR) Crossing Improvements											
1	Maintain Existing Crossing (2-lane bridge)	Segment 2	Maintain the existing two-lane bridge for vehicular traffic	No	No	No	No	No	This represents no improvement from the existing conditions.	No	Improvements to the existing configuration of the UPRR crossing were deemed necessary to accommodate vehicular traffic demands and pedestrian/bicycle accessibility. Therefore, the no improvement option was not selected for an Alternative.
2	Construct Pedestrian/Bicycle Bridge	Segment 2	Construct a bridge east of the existing UPRR bridge to accommodate a bicycle/pedestrian path	No	Yes	No	No	No	Expanding the bridge to provide pedestrian access would provide a pedestrian pathway for crossing the UPRR tracks.	Yes (Alt. A and C)	This improvement was incorporated into Alternatives A and C to provide a continuous pedestrian/bicycle path of travel along Meridian Ave, which would connect to the off-street shared-use
3	Construct New 2-Lane Bridge	Segment 2	Construct a second vehicular bridge west of the existing UPRR bridge to accommodate two additional vehicular travel lanes	Yes	Yes	Yes	No	No	Expanding the bridge for both additional travel lanes would allow for better vehicular operations along the corridor and remove an existing bottleneck.	Yes (Alt. B and C)	This improvement was incorporated into Alternatives B and C to allow for installation of additional travel lanes in one or both directions.
Pedestrian/Bicycle Improvements											
1	Add Shoulders	Segment 2	Widen the roadway to provide shoulders along the corridor to accommodate pedestrians/bicyclists.	No	Yes	No	No	No	Shoulders on the roadway can provide a space for pedestrians and bicyclists when R/W is limited.	Yes (Alt. B)	This improvement was incorporated into Alternative B to provide a narrow shoulder in both directions, which could allow for pedestrian and bicycle traffic.
2	Off-Street Shared-Use Path	Segment 2	Provide a two-way shared-use path along the east side of the roadway separated from vehicular travel.	No	Yes	No	Yes	Yes	An off-street shared-use path provides additional safety for pedestrians and bicyclists, as the dedicated path is physically separated from vehicular traffic.	Yes (Alt. A and C)	This improvement was incorporated into Alternatives A and C to provided a dedicated, separated pathway for pedestrian and bicycle traffic.
3	Alternate Off-Street Non-Motorized Routes	Segment 2	Identify and support the installation of parallel routes for non-motorized travel (96th St [planned], 114th St [existing], 122nd [existing])	No	Yes	No	Yes	No	Alternative routes, while requiring longer travel distances, would provide non-motorized connectivity along roadways with lower speeds and traffic volumes.	Yes (Alt. A, B, and C)	This improvement was accounted for in all alternatives to support the installation of an alternative path for pedestrian and bicycle travel along a parallel roadway (along 98th Ave).
4	Curb Ramp Improvements	Segment 2	Improve non-compliant pedestrian curb ramps within the project limits to meet Americans with Disabilities Act (ADA) standards.	No	Yes	No	No	Yes	ADA curb ramp improvements will improve accessibility along the corridor.	Yes (Alt. A and C)	This improvement was incorporated into Alternatives A and C to provide ADA facilities along the shared-use path to make the corridor ADA accessible.

Appendix F: Level 2 Screening: Alternative Design Concepts

Appendix F: Level 2 Screening: Alternative Design Concept: Alternative A

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SEC. 15, T 20 N, R 04 E, W.M.



CONSTRUCTION NOTES:

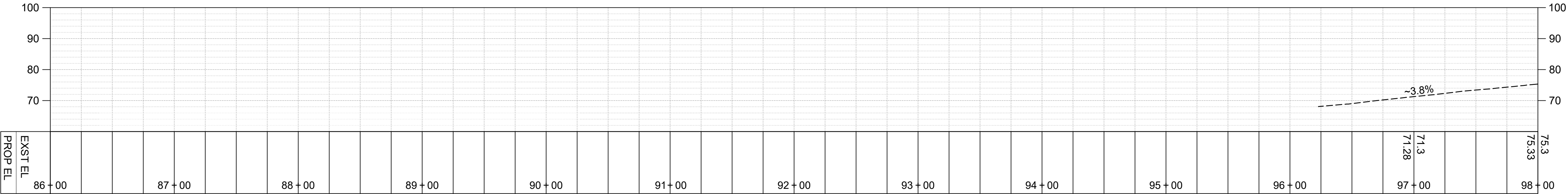
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GENERAL NOTES:

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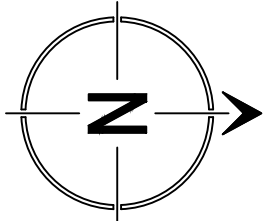
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- EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY:	DATE:
Drawn EWJ	10/23
Designed KAH	10/23
Reviewed KAH	10/23
Approved VLS	10/23
NOT FOR CONSTRUCTION	



DRAFT

CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION A
ROADWAY PLANS CONCEPT

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP01
SHEET	1
OF	11

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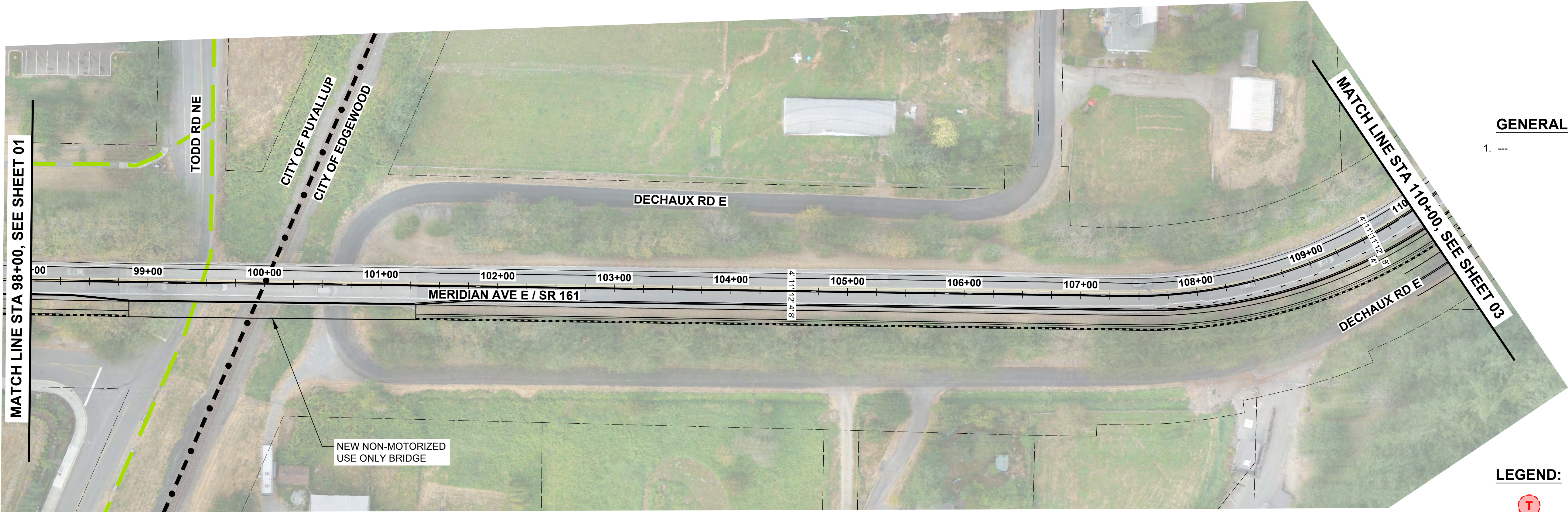
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CONSTRUCTION NOTES:

1. ---

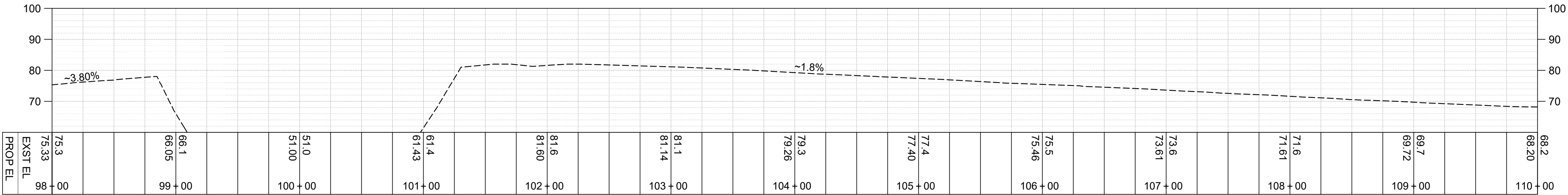
GENERAL NOTES:

1. ---



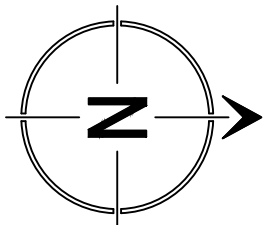
LEGEND:

-  EXISTING TRANSIT STOP
-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		



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CITY OF EDGEWOOD
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OPTION A
ROADWAY PLANS CONCEPT

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP02
SHEET	2
OF	11

CONSTRUCTION NOTES:

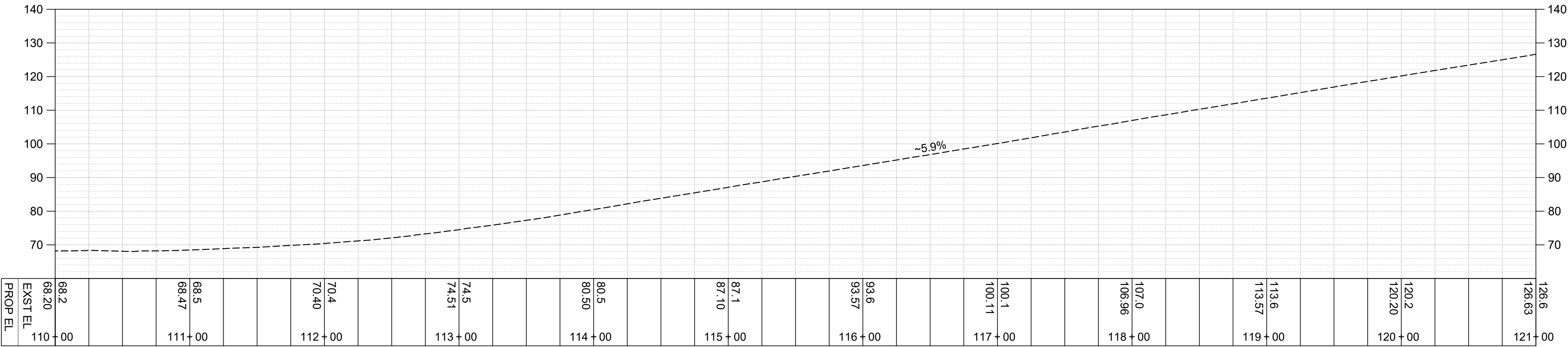
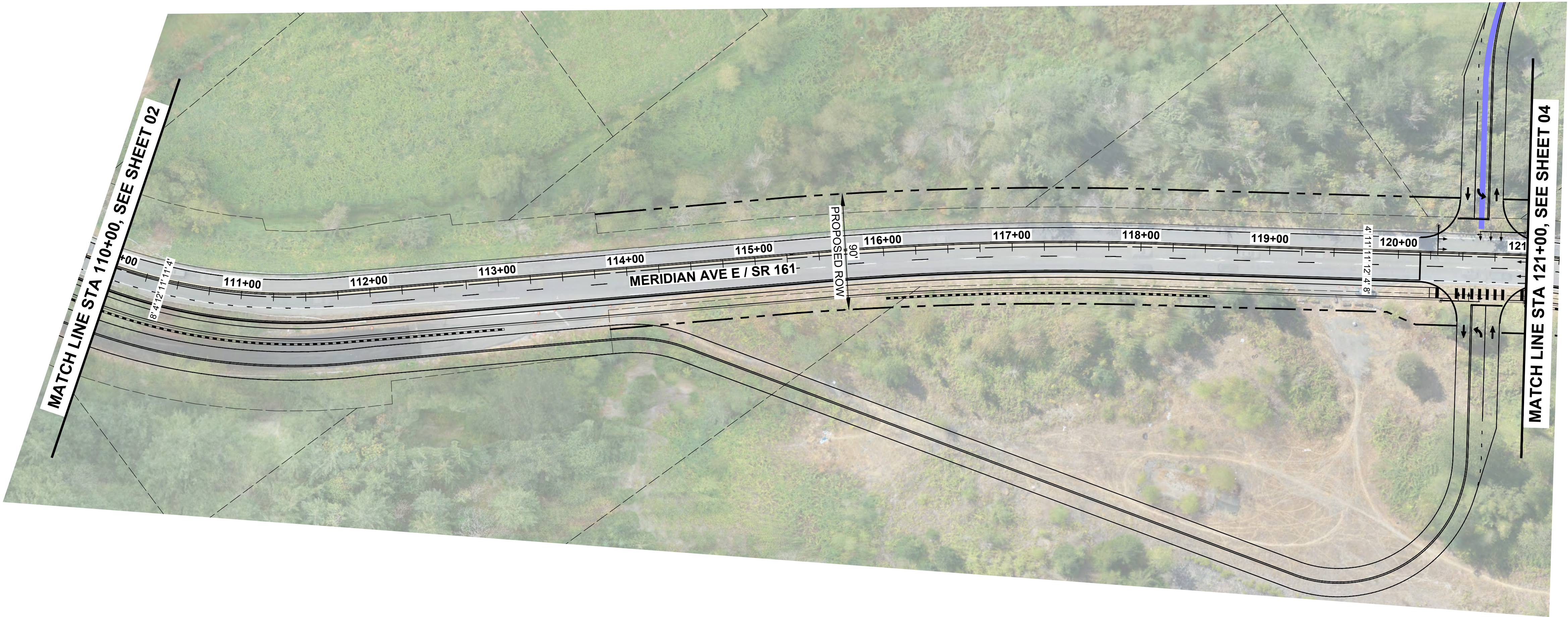
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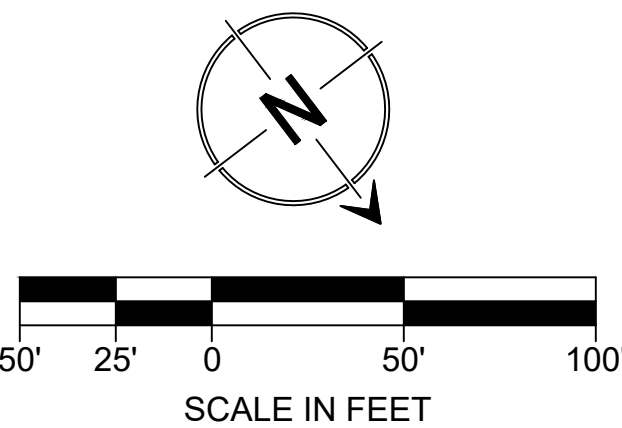
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-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

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BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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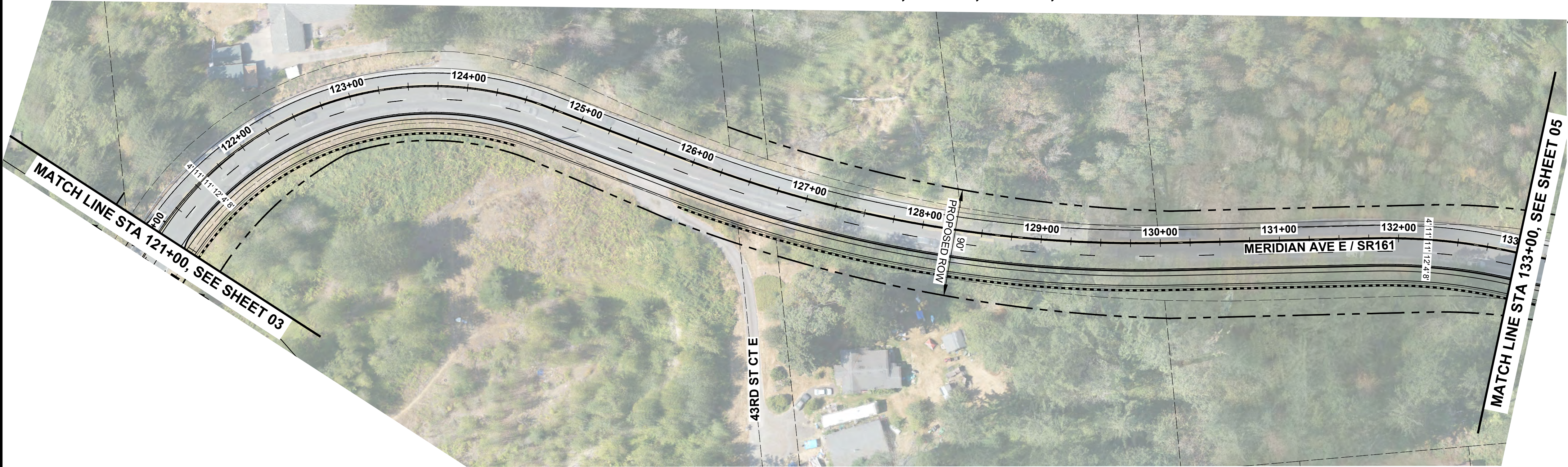
**CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS**

**OPTION A
ROADWAY PLANS CONCEPT**

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP03
SHEET	3
OF	11

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SEC. 15, T 20 N, R 04 E, W.M.

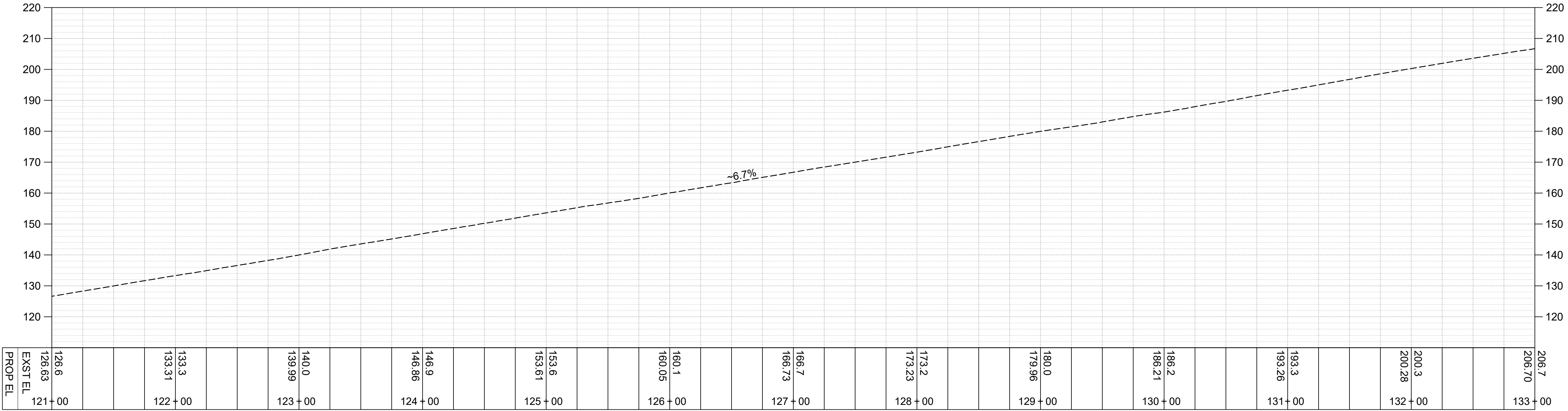


CONSTRUCTION NOTES:

GENERAL NOTES:

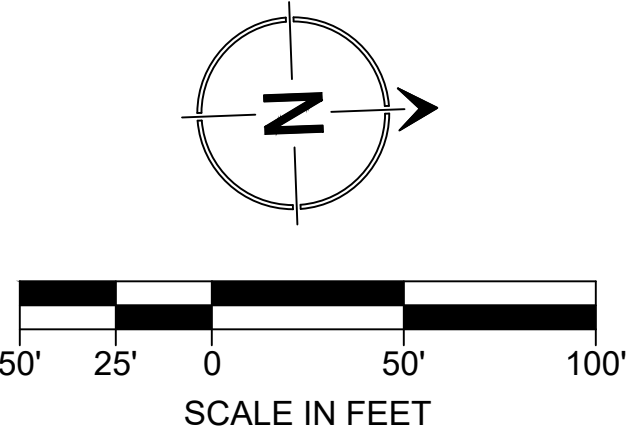
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- EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE
SCALE: 1"=50' HORIZ., 1"=20' VERT.

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NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS	
OPTION A ROADWAY PLANS CONCEPT	
PROJECT NO. 221033	DRAWING NO. RP04
CONTRACT NO. -	SHEET 4 OF 11

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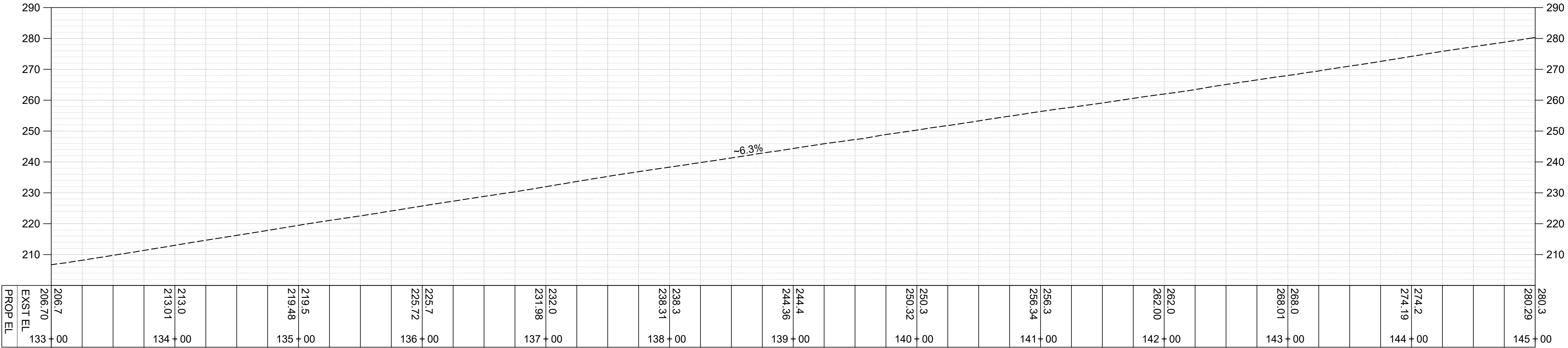
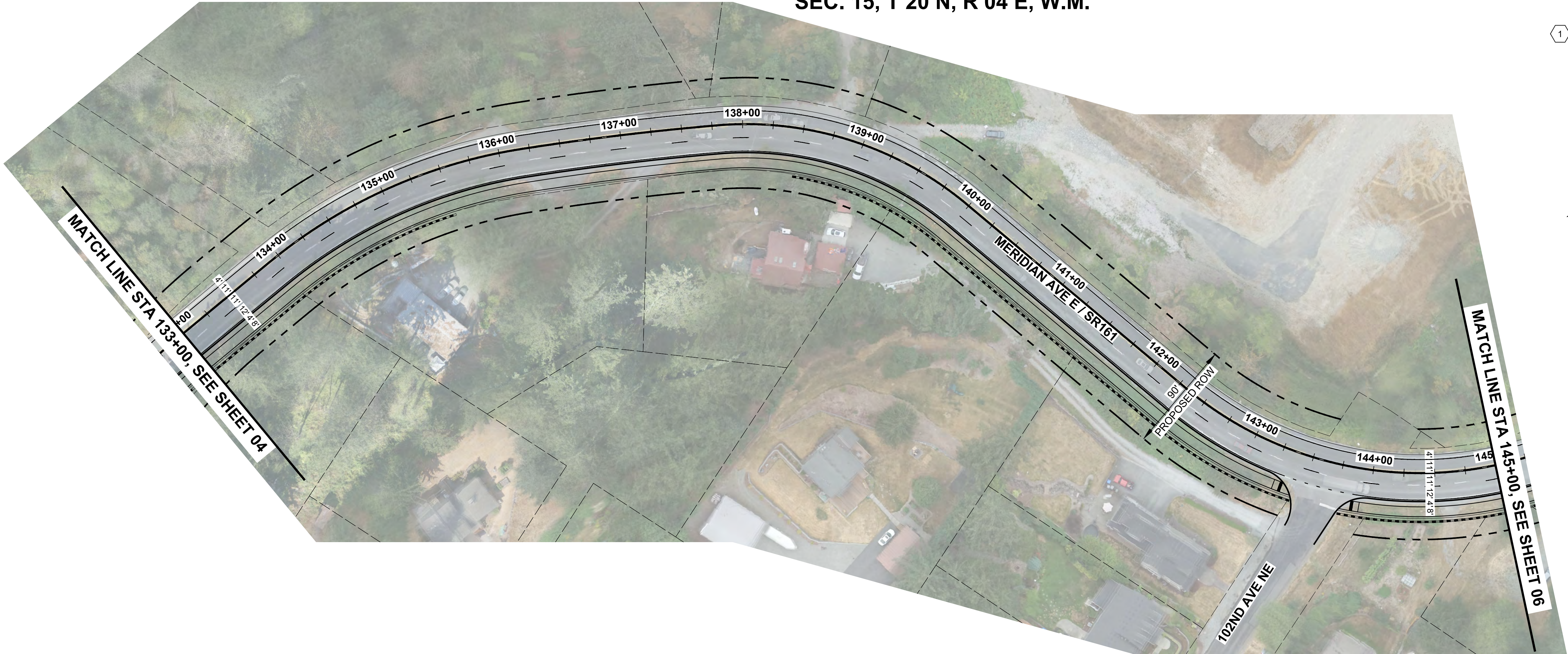
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GENERAL NOTES:

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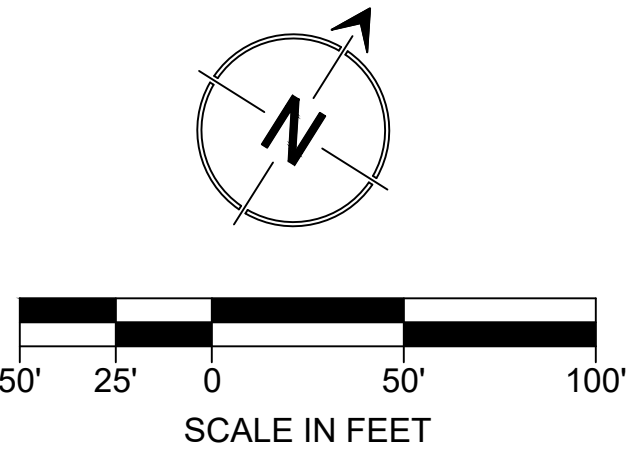
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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NO.	BY	DATE	REVISION

	BY:	DATE:
Drawn	EWJ	10/23
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PROJECT NO.
221033

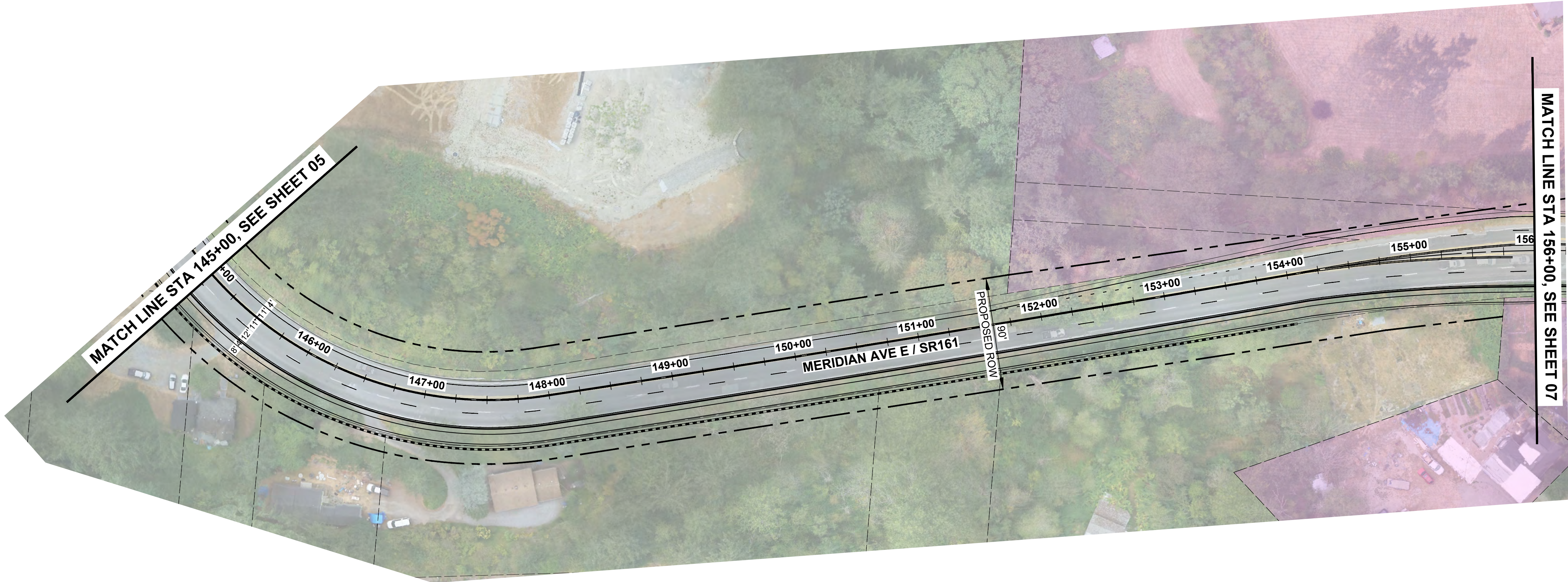
CONTRACT NO.
-

DRAWING NO.
RP05

SHEET 5
OF 11

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SEC. 15, T 20 N, R 04 E, W.M.



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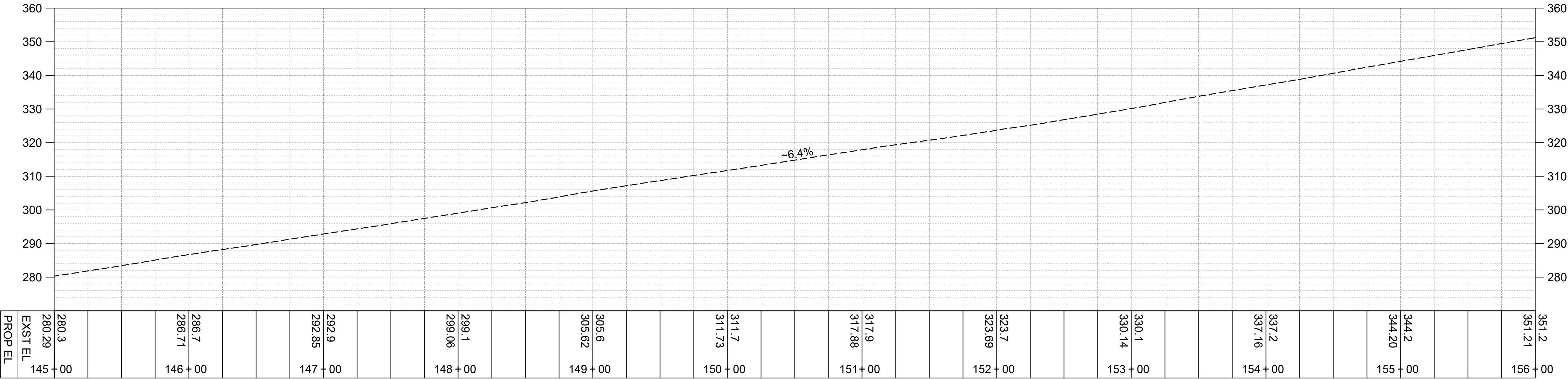
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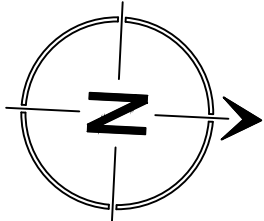
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-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY

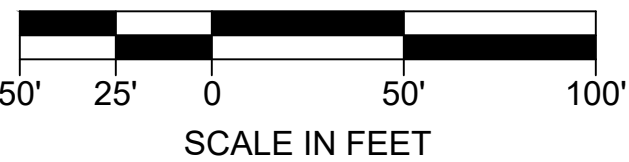


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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OPTION A
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PROJECT NO.
221033

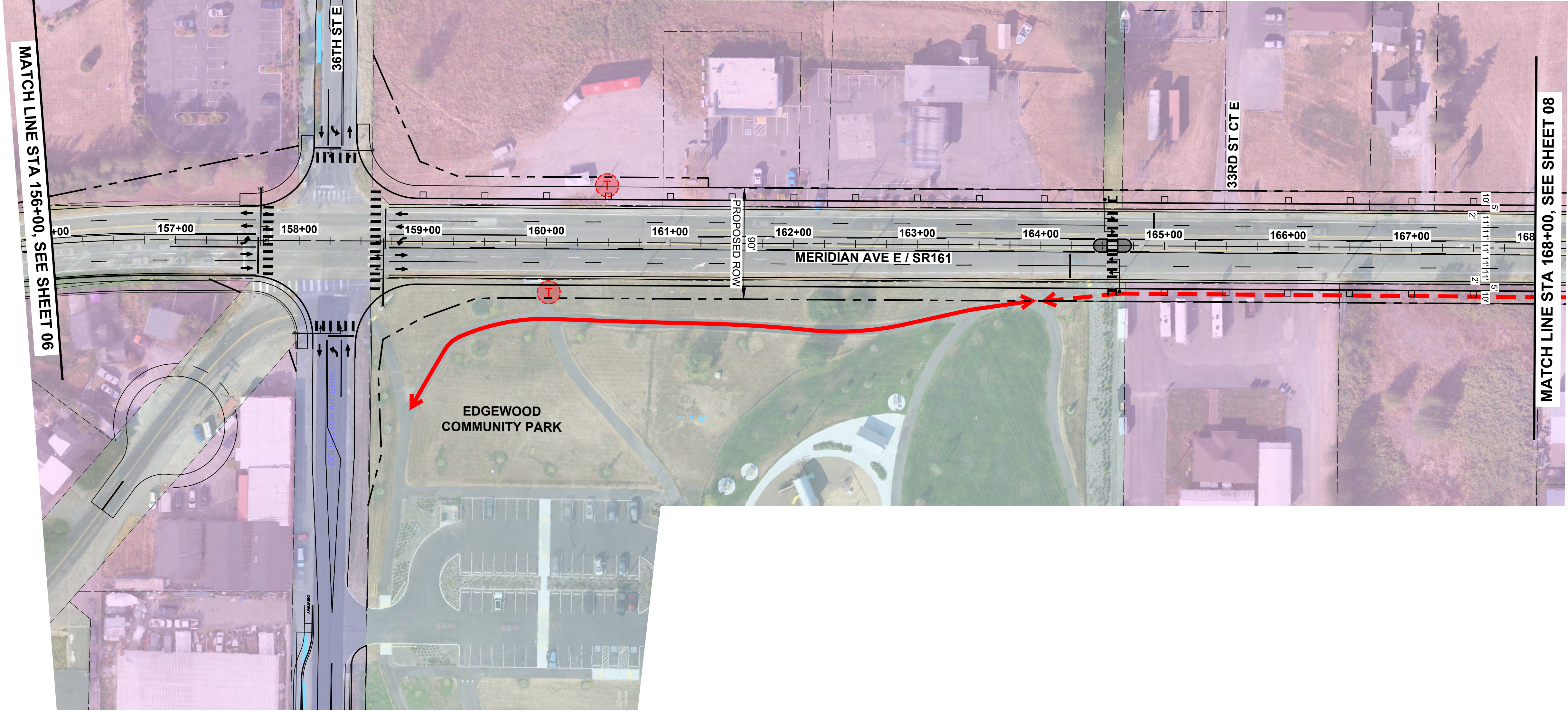
CONTRACT NO.
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DRAWING NO.
RP06

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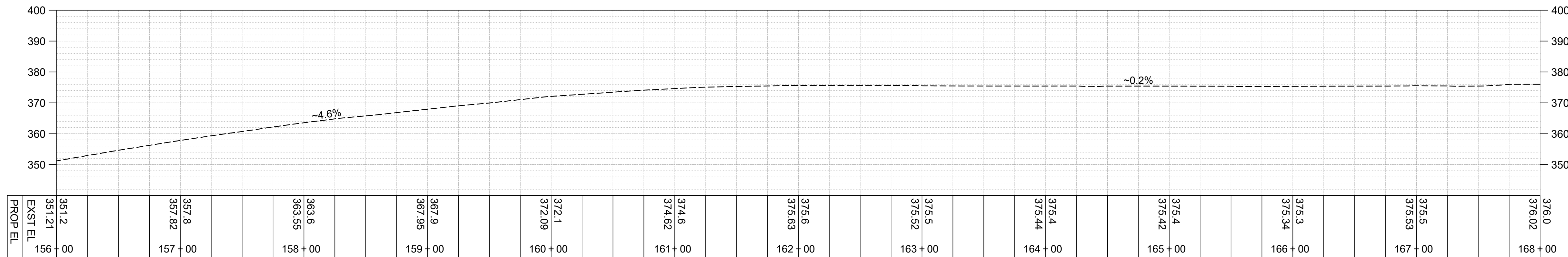
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GENERAL NOTES:

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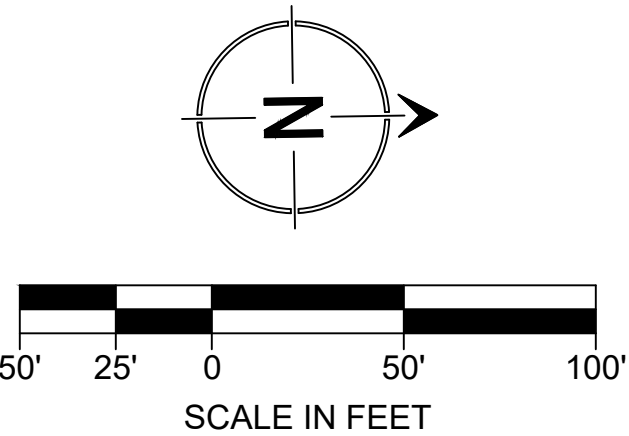
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- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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OPTION A ROADWAY PLANS CONCEPT		CONTRACT NO. -
		DRAWING NO. RP07
		SHEET 7 OF 11

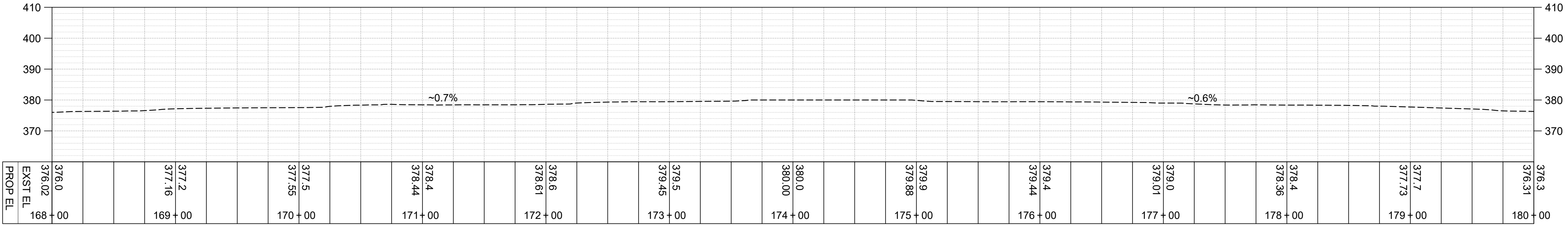
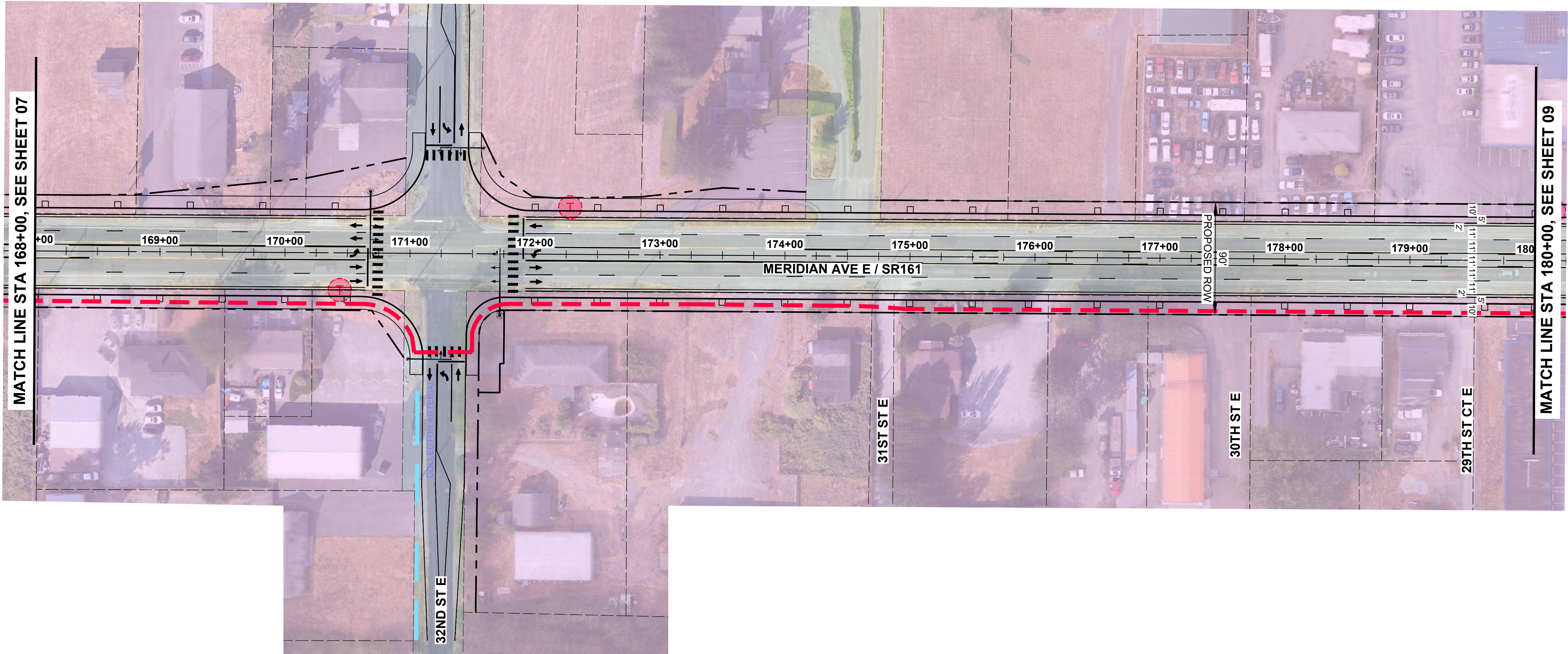
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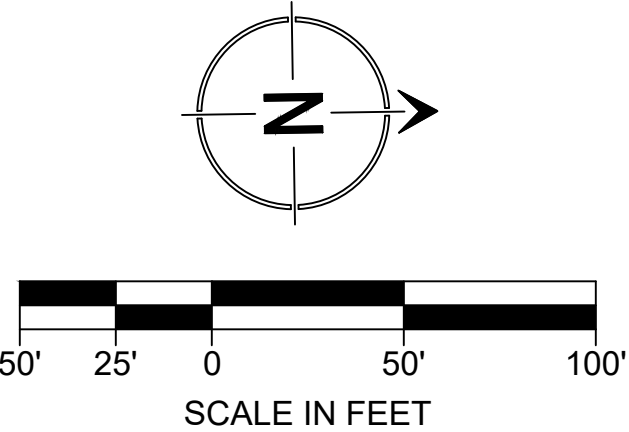
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- EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
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- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

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Drawn	EWJ	2/24
Designed	KAH	2/24
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**OPTION A
ROADWAY PLANS CONCEPT**

PROJECT NO.
221033

CONTRACT NO.
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DRAWING NO.
RP08

SHEET 8
OF 11

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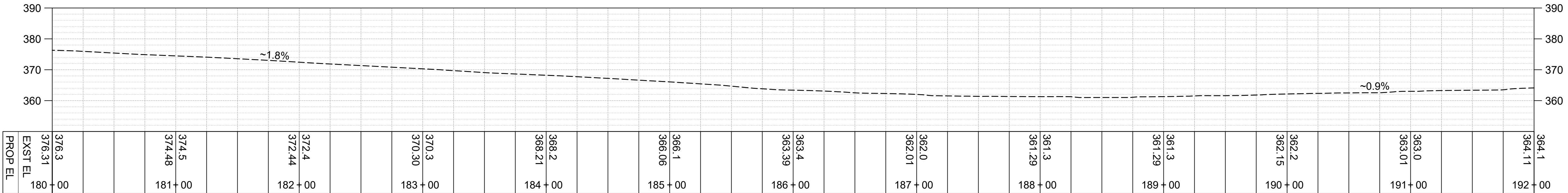
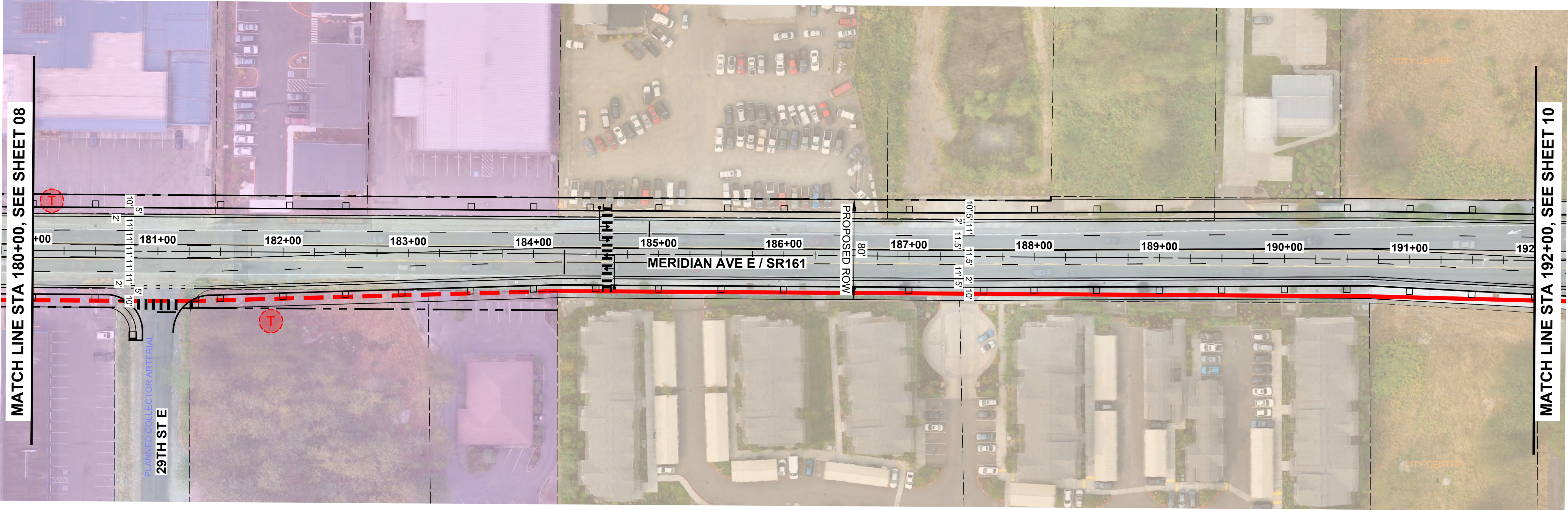
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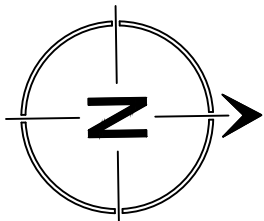
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-  PLANNED NEW ROADWAY

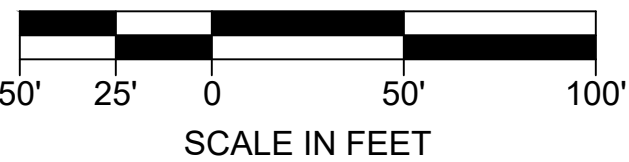


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS	
OPTION A ROADWAY PLANS CONCEPT	
PROJECT NO. 221033	DRAWING NO. RP09
CONTRACT NO. -	SHEET 9 OF 11

SEC. 15, T 20 N, R 04 E, W.M.

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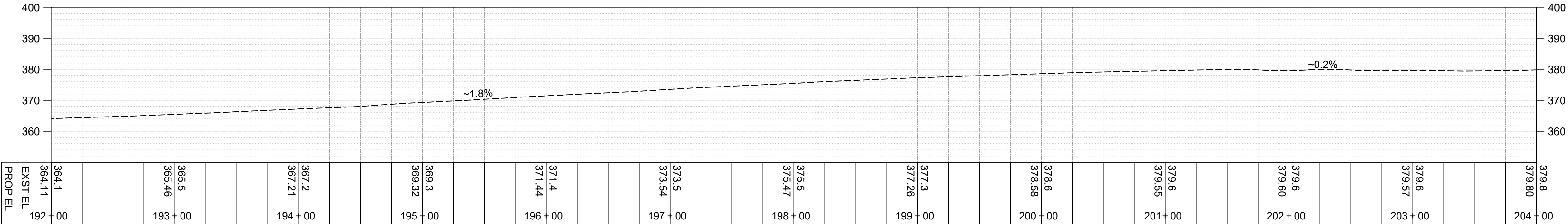
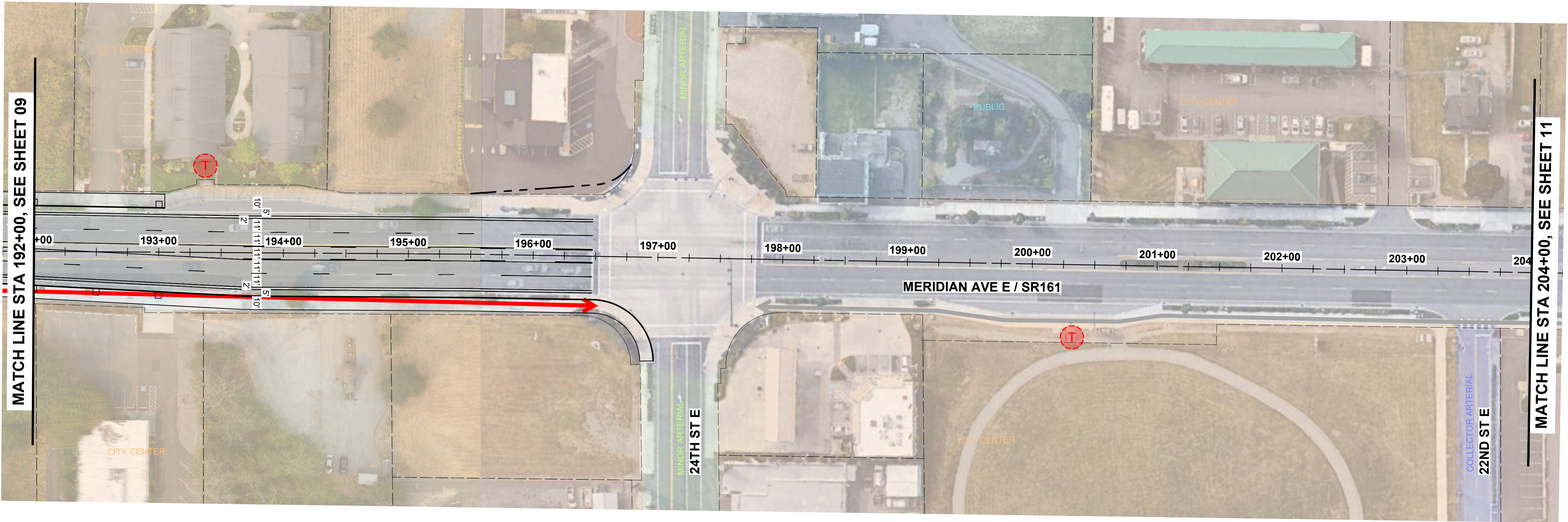
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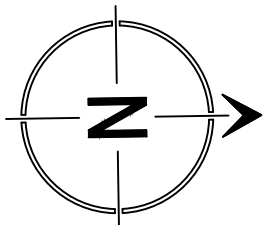
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-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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Reviewed	KAH	10/23
Approved	VLS	10/23
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CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS		PROJECT NO. 221033
OPTION A ROADWAY PLANS CONCEPT		CONTRACT NO. -
		DRAWING NO. RP10
		SHEET 10 OF 11

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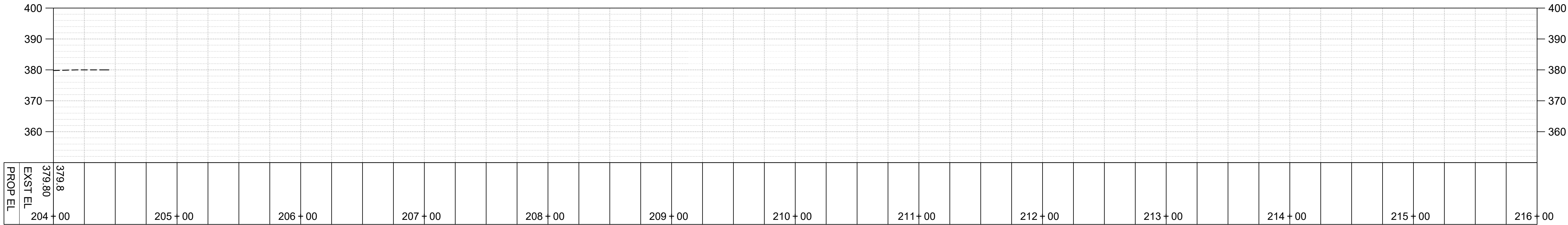
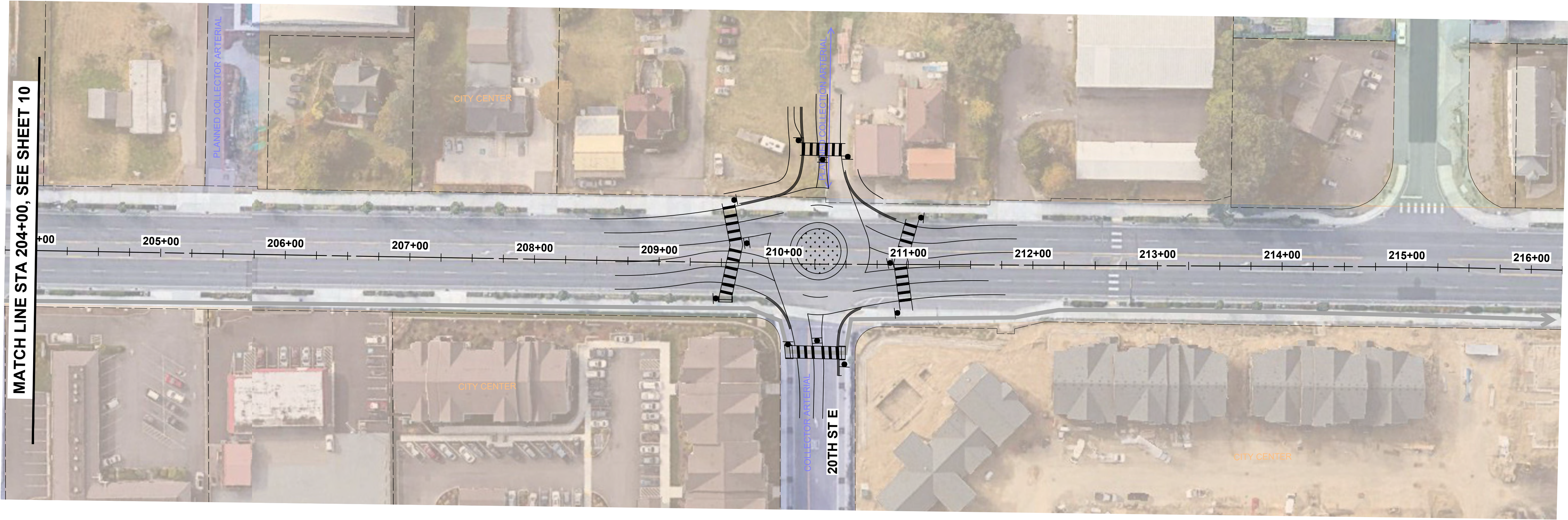
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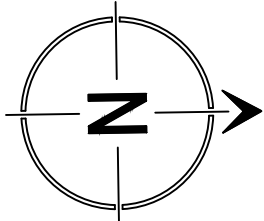
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-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY

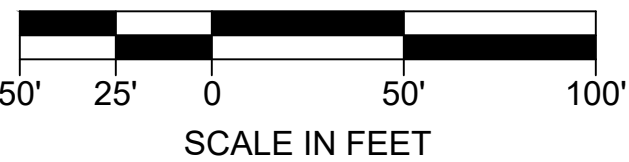


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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OPTION A
ROADWAY PLANS CONCEPT

PROJECT NO.
221033

CONTRACT NO.
-

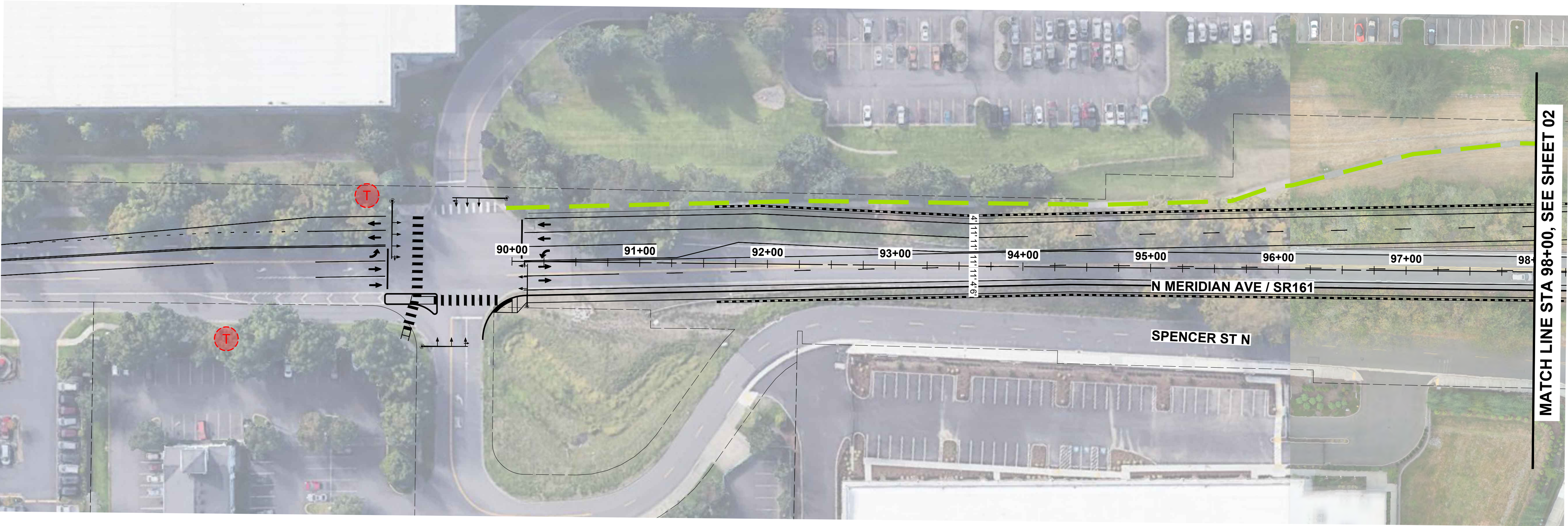
DRAWING NO.
RP11

SHEET 11
OF 11

Appendix F: Level 2 Screening: Alternative Design Concept: Alternative B

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CONSTRUCTION NOTES:

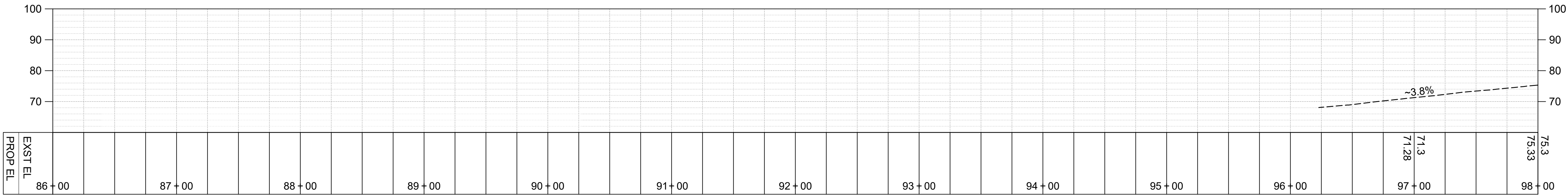
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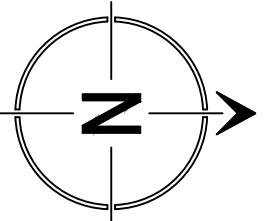
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- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY

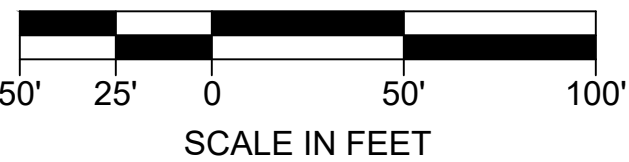


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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CITY OF EDGEWOOD
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OPTION B1
ROADWAY PLANS CONCEPT

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP01

SHEET 1
OF 11

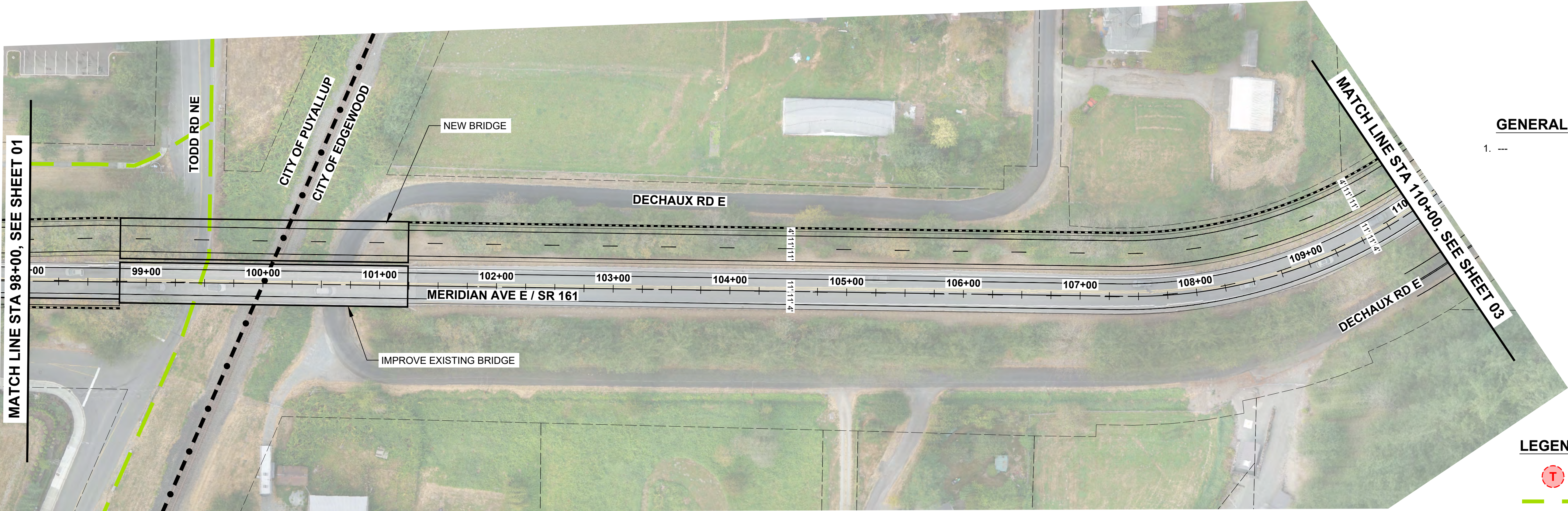
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CONSTRUCTION NOTES:

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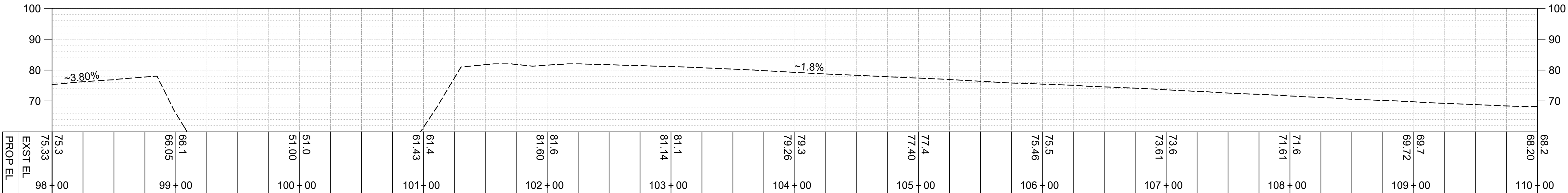
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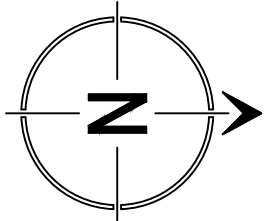
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- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY

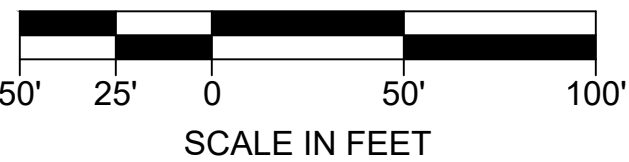


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B1
ROADWAY PLANS CONCEPT

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP02
SHEET	2
OF	11

CONSTRUCTION NOTES:

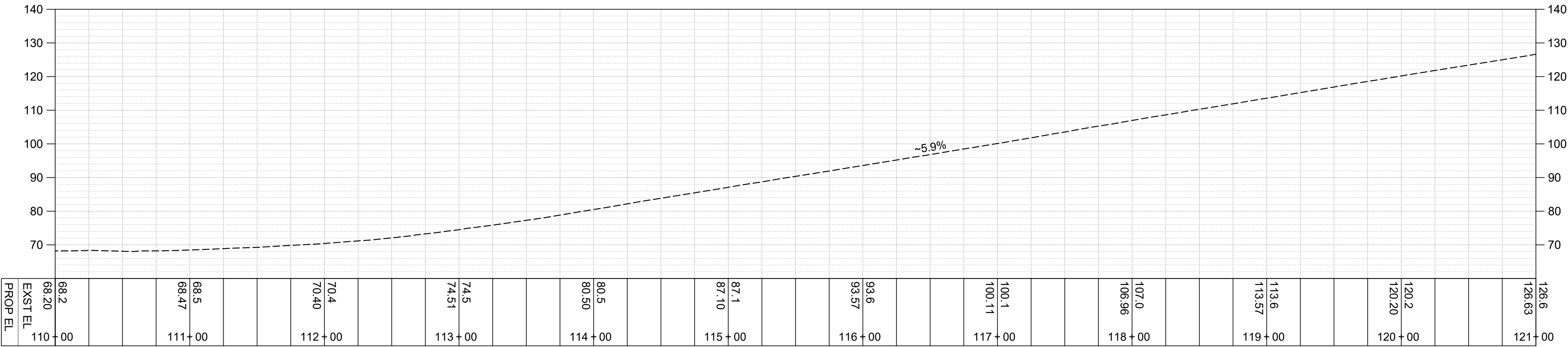
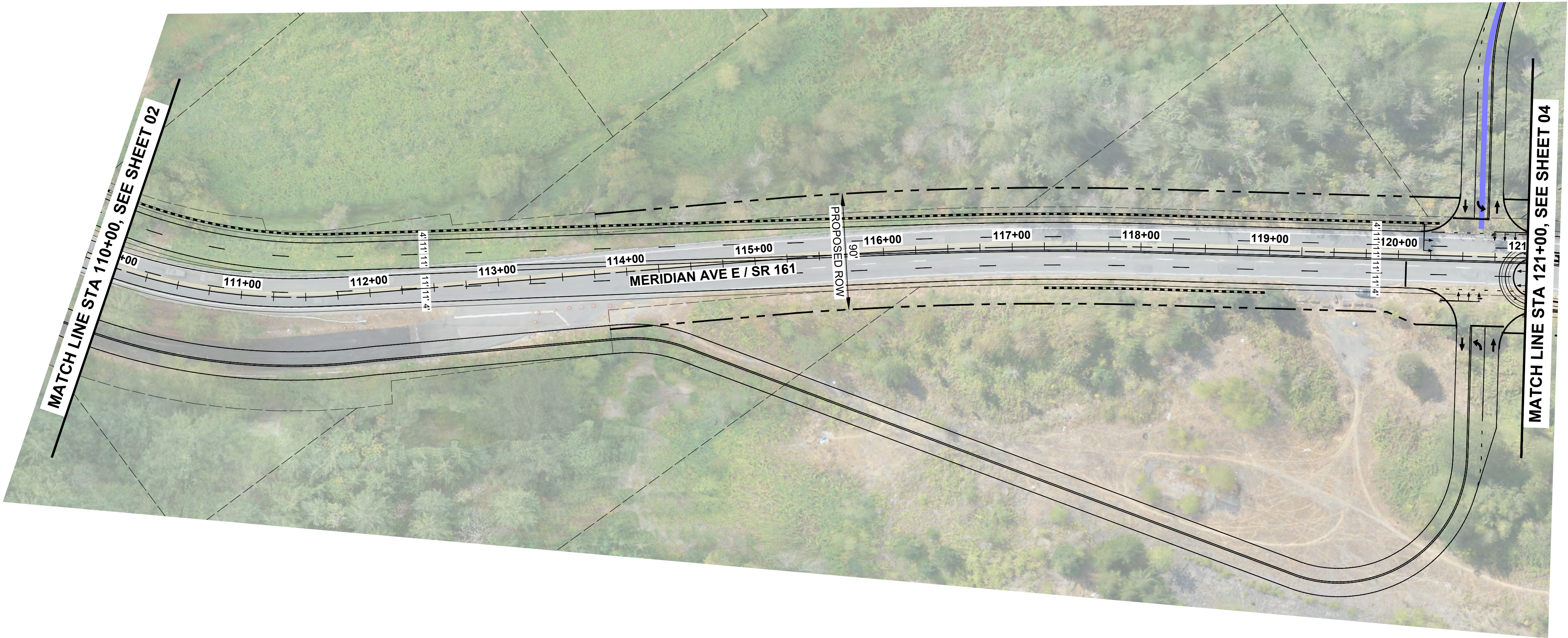
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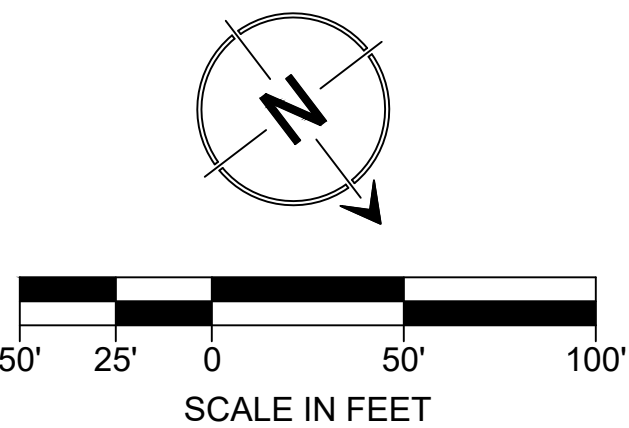
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-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



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Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B1
ROADWAY PLANS CONCEPT

PROJECT NO.
221033

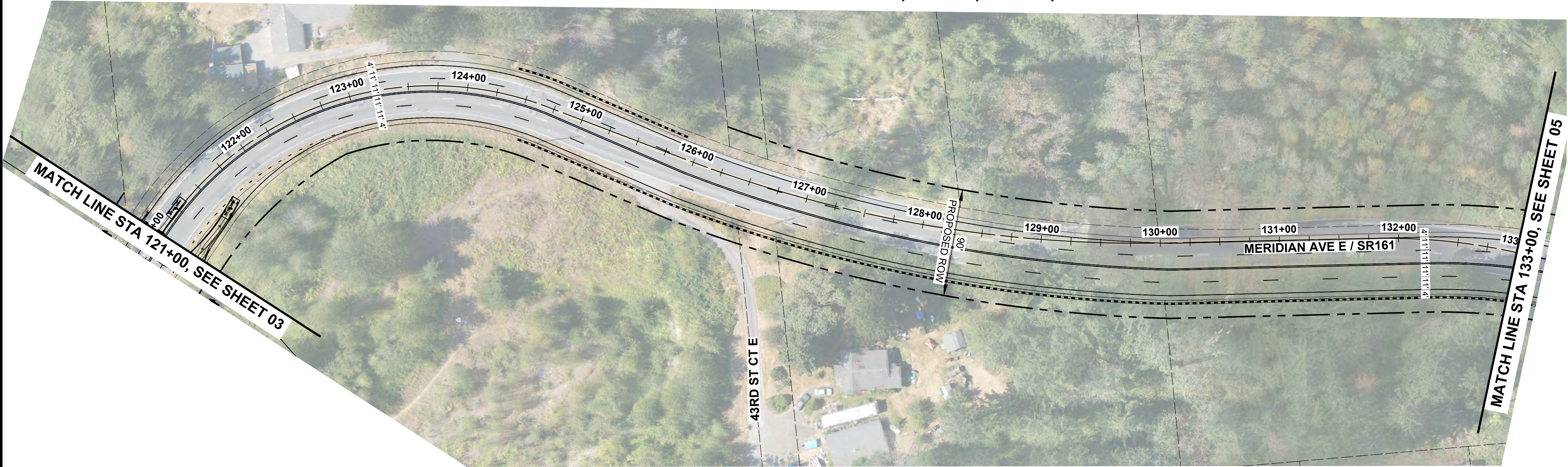
CONTRACT NO.
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DRAWING NO.
RP03

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SEC. 15, T 20 N, R 04 E, W.M.



CONSTRUCTION NOTES:

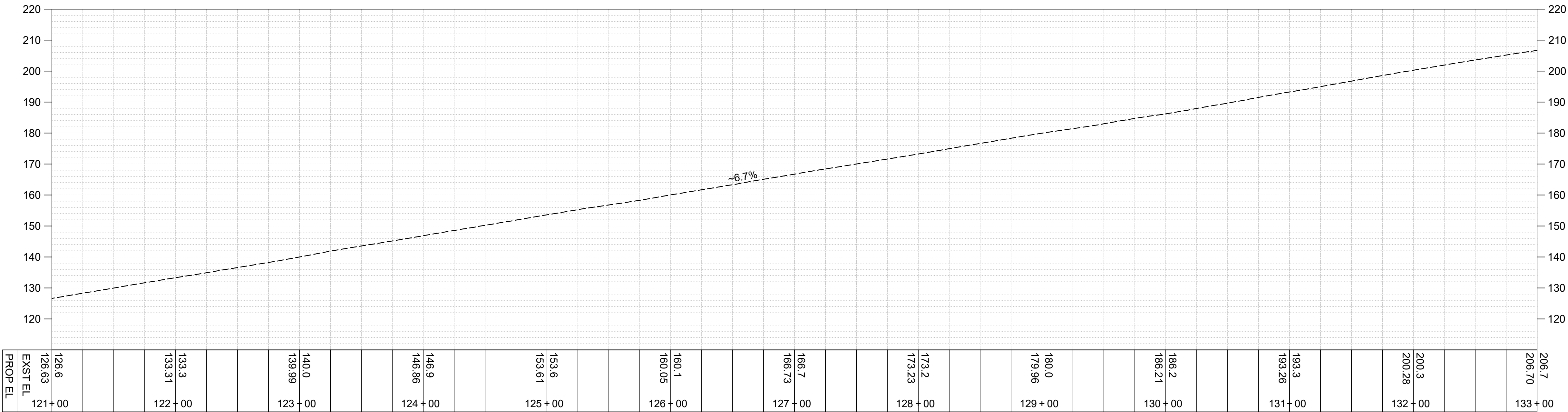
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GENERAL NOTES:

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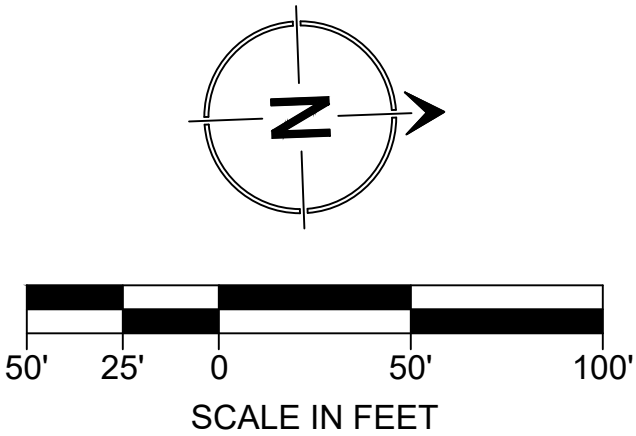
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-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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OPTION B1 ROADWAY PLANS CONCEPT		CONTRACT NO. -
		DRAWING NO. RP04
		SHEET 4 OF 11

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SEC. 15, T 20 N, R 04 E, W.M.

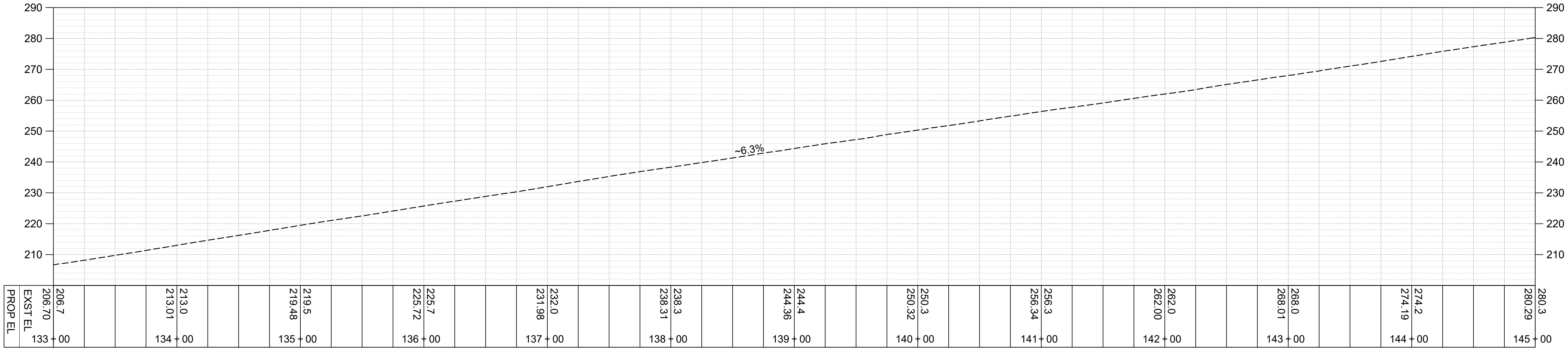
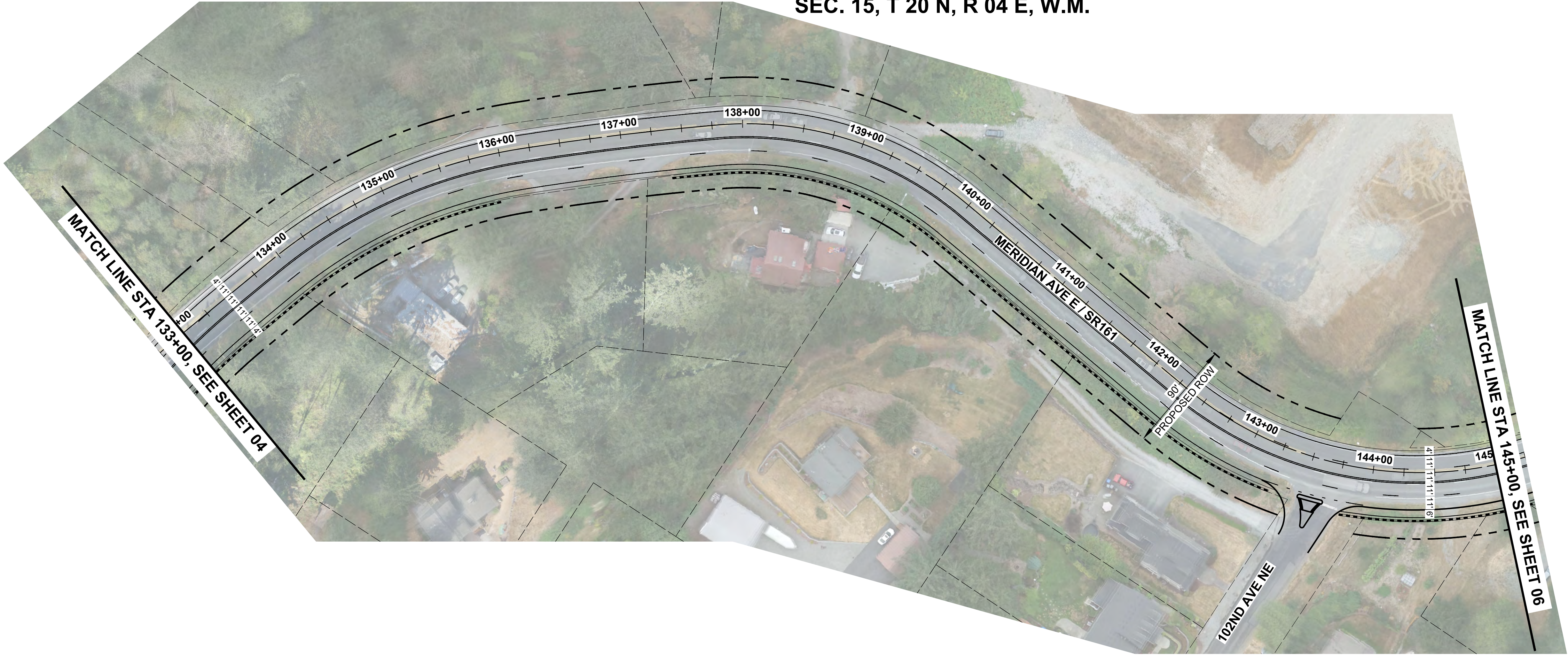
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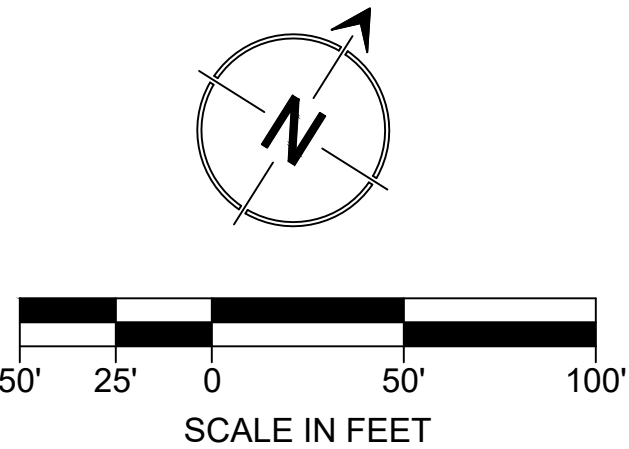
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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Designed	KAH	10/23
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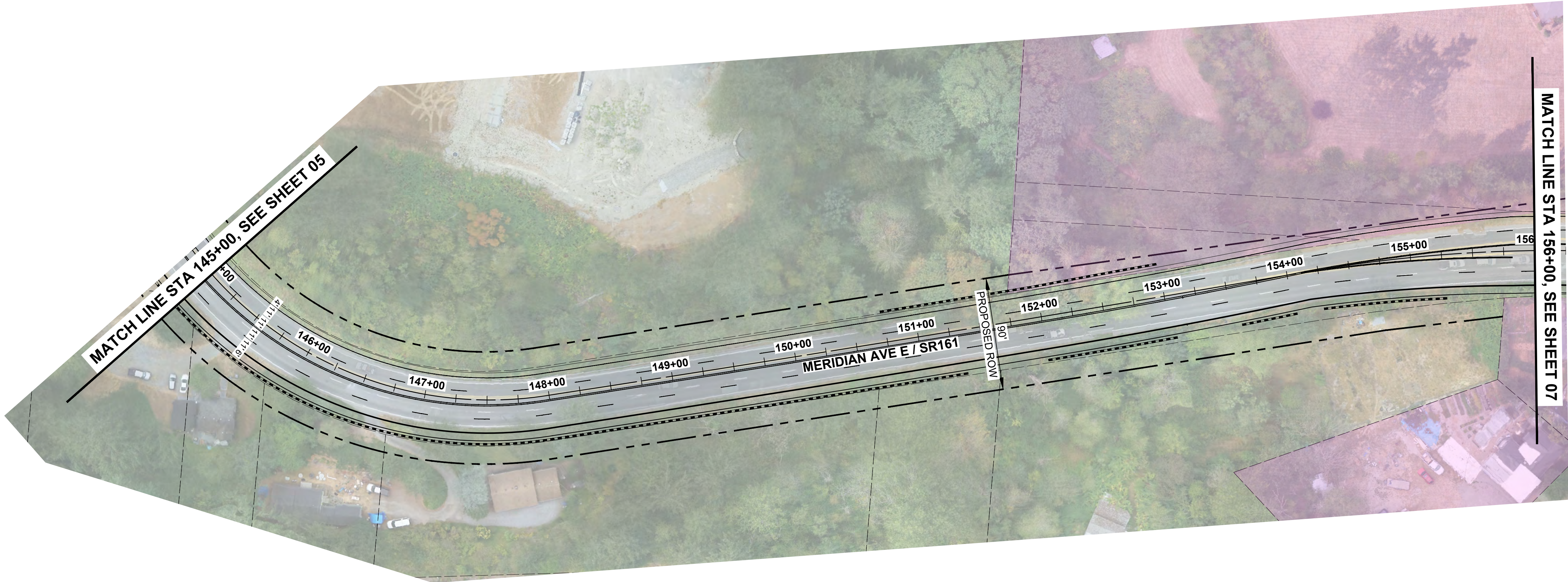
CONTRACT NO.
-

DRAWING NO.
RP05

SHEET 5
OF 11

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SEC. 15, T 20 N, R 04 E, W.M.



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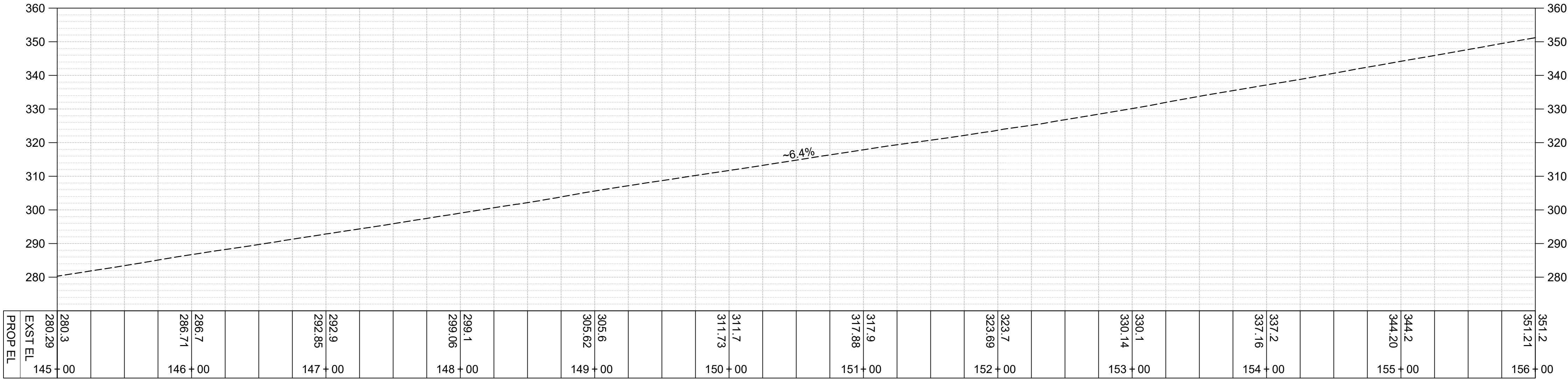
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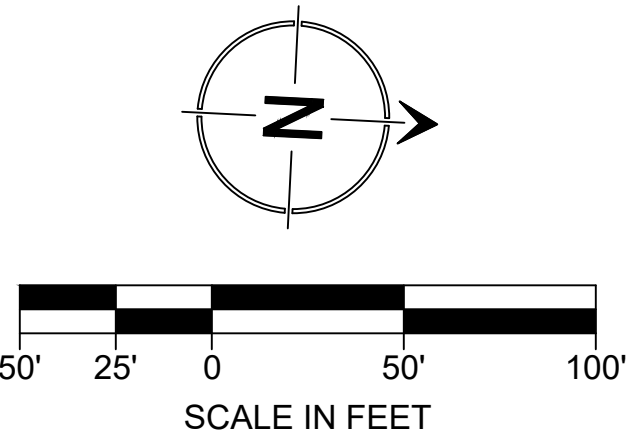
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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PROJECT NO.
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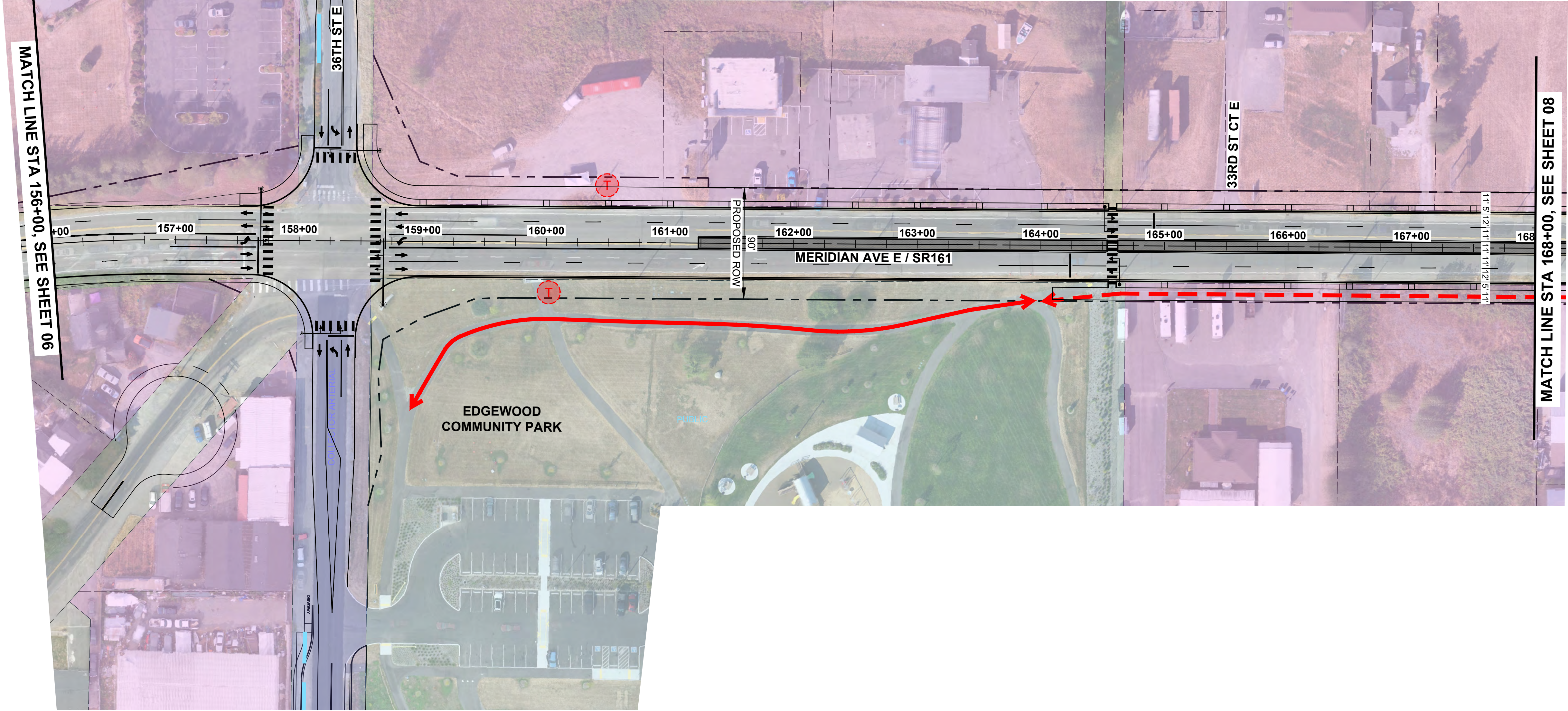
CONTRACT NO.
-

DRAWING NO.
RP06

SHEET 1
OF 11

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SEC. 15, T 20 N, R 04 E, W.M.



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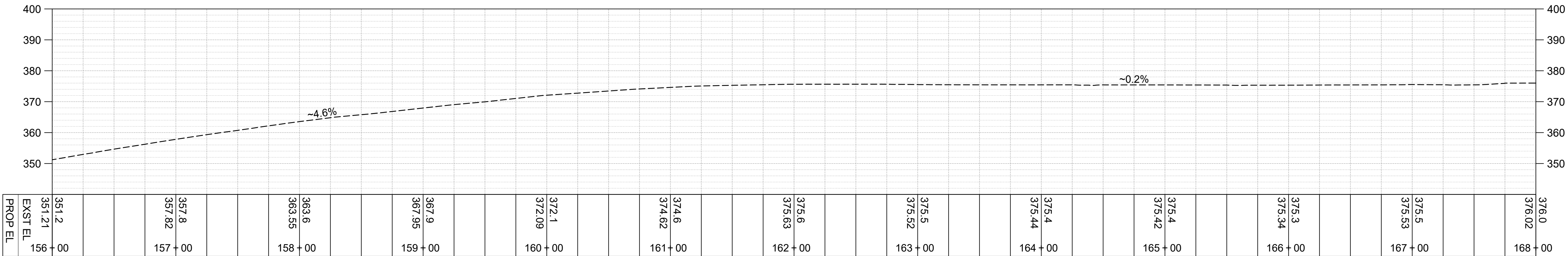
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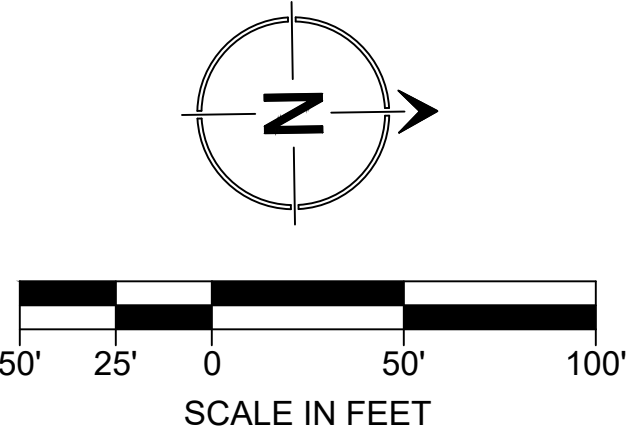
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- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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Designed	KAH	10/23
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OPTION B1
ROADWAY PLANS CONCEPT

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP07
SHEET	7
OF	11

SEC. 15, T 20 N, R 04 E, W.M.

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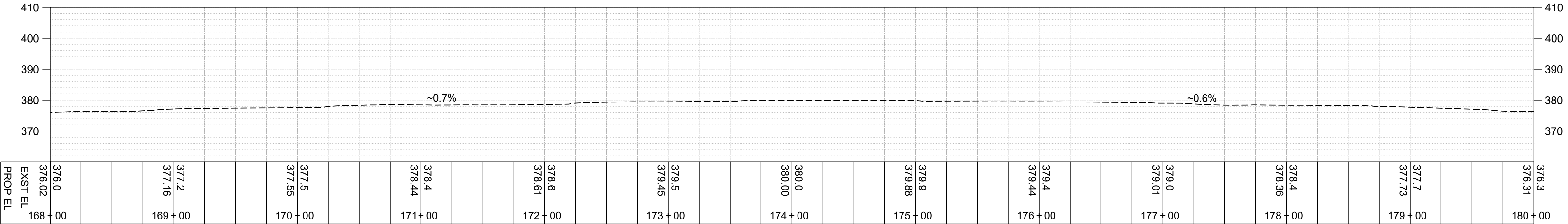
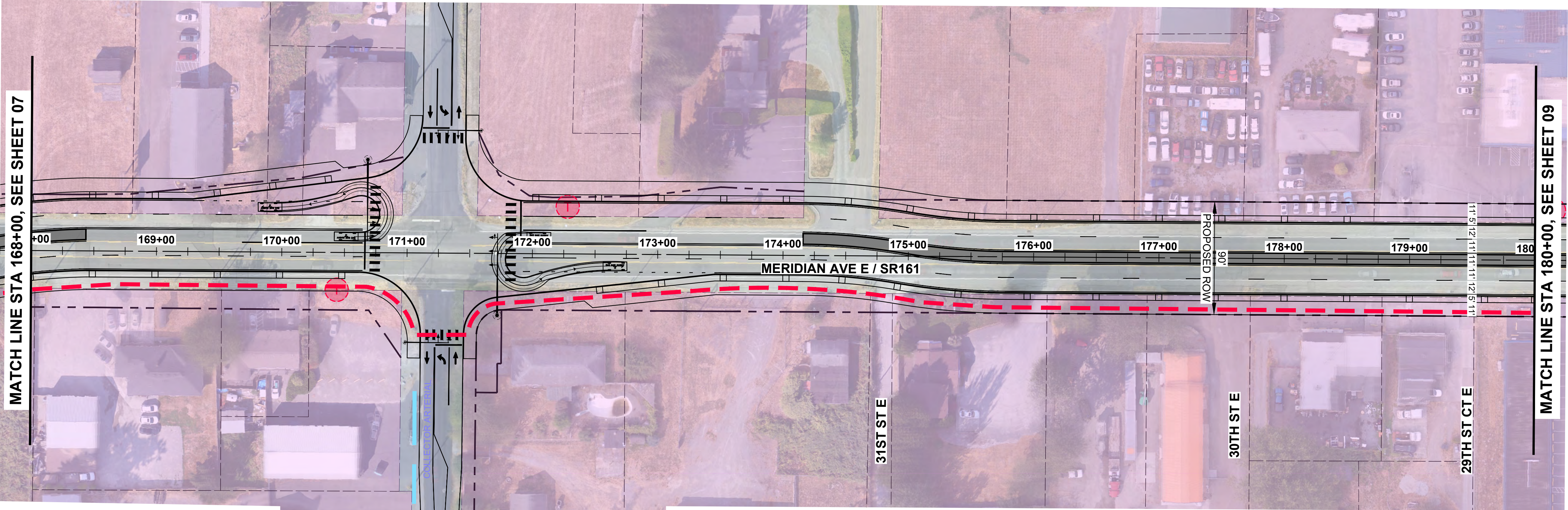
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GENERAL NOTES:

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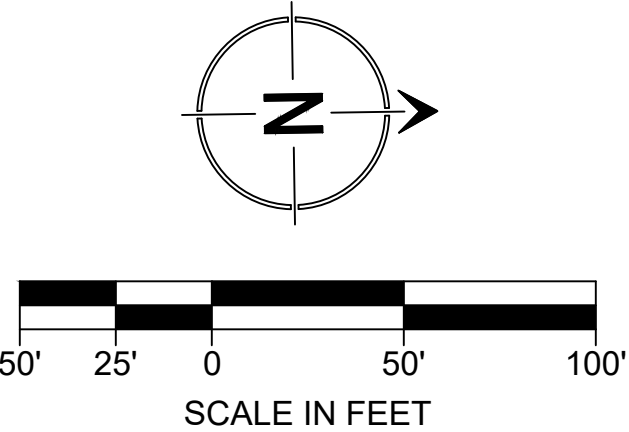
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



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SCALE: 1"=50' HORIZ., 1"=20' VERT.

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ROADWAY PLANS CONCEPT

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP08

SHEET 8
OF 11

SEC. 15, T 20 N, R 04 E, W.M.

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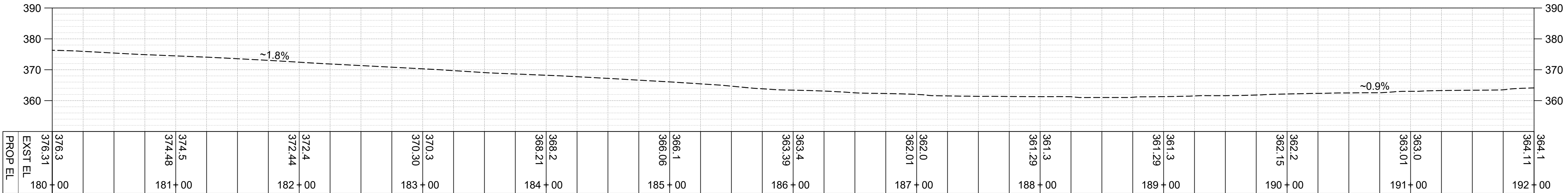
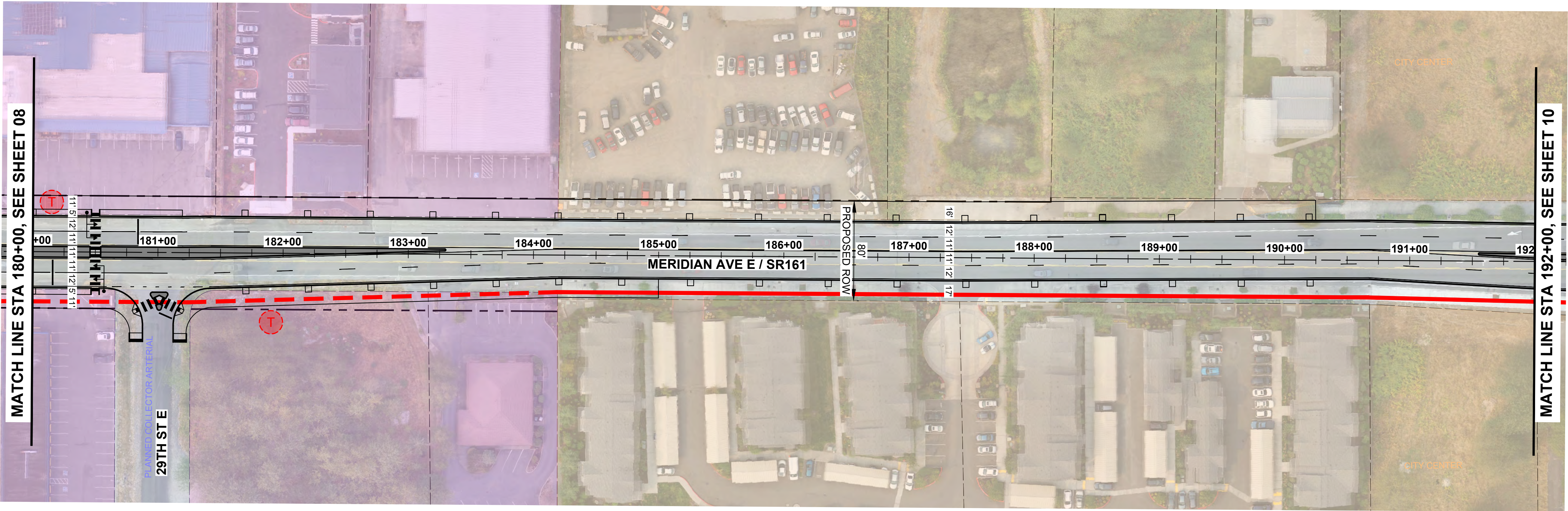
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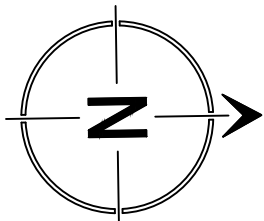
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-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
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-  PLANNED NEW ROADWAY



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SCALE: 1"=50' HORIZ., 1"=20' VERT.



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OPTION B1
ROADWAY PLANS CONCEPT

PROJECT NO.
221033

CONTRACT NO.
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DRAWING NO.
RP09

SHEET 9
OF 11

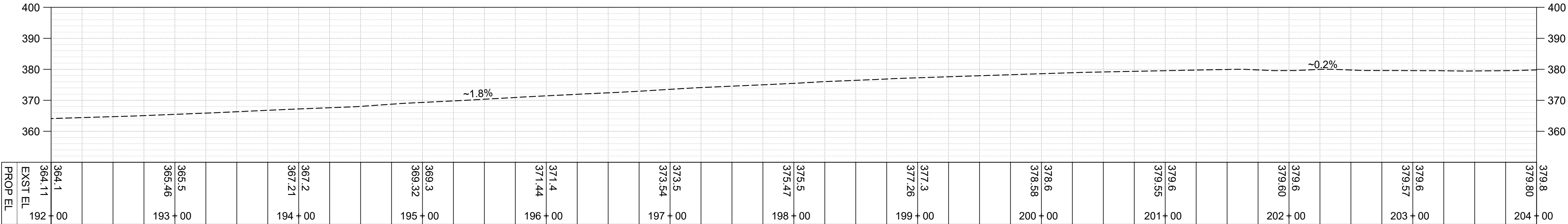
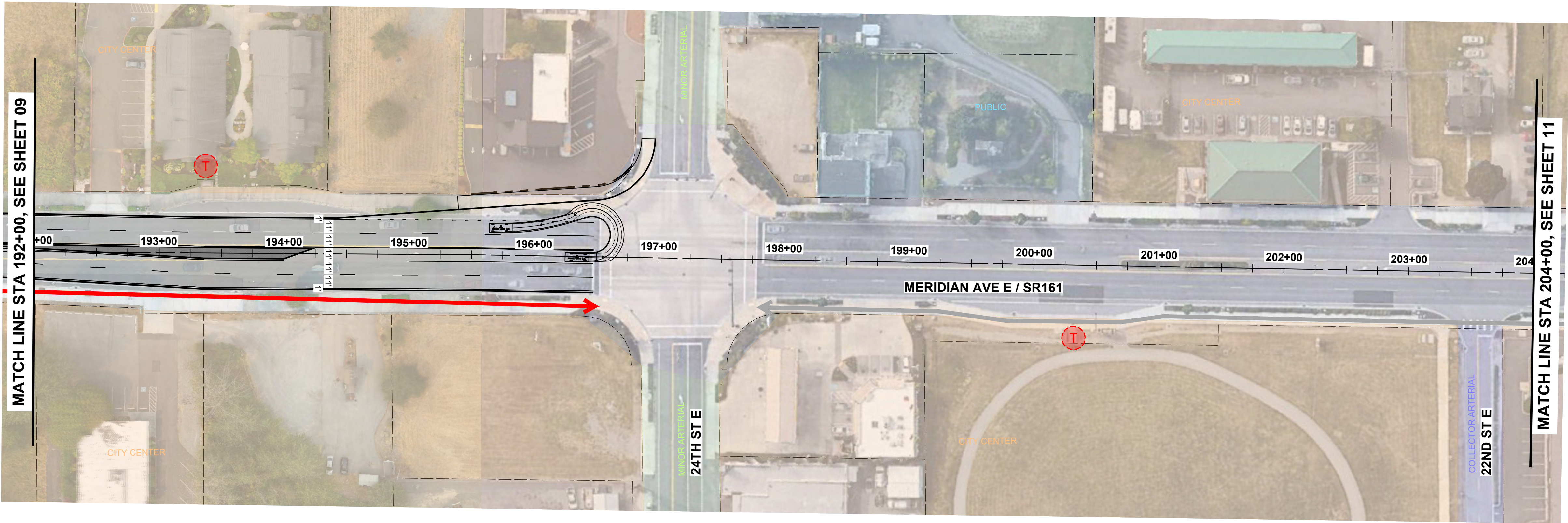
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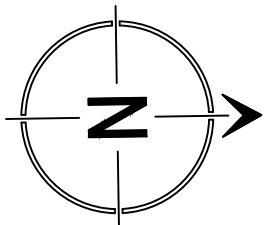
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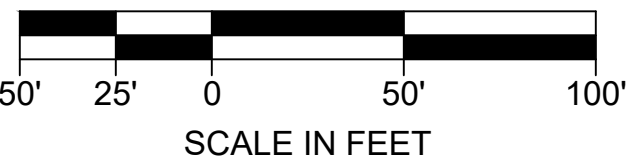


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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OPTION B1 ROADWAY PLANS CONCEPT		CONTRACT NO. -
		DRAWING NO. RP10
		SHEET 10 OF 11

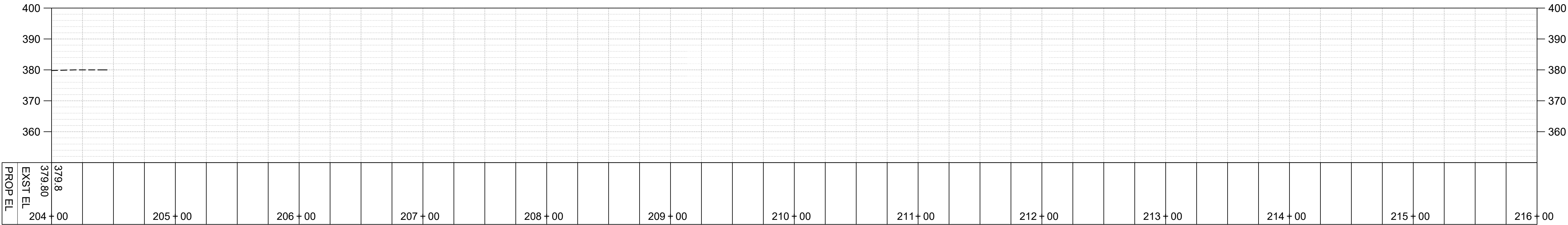
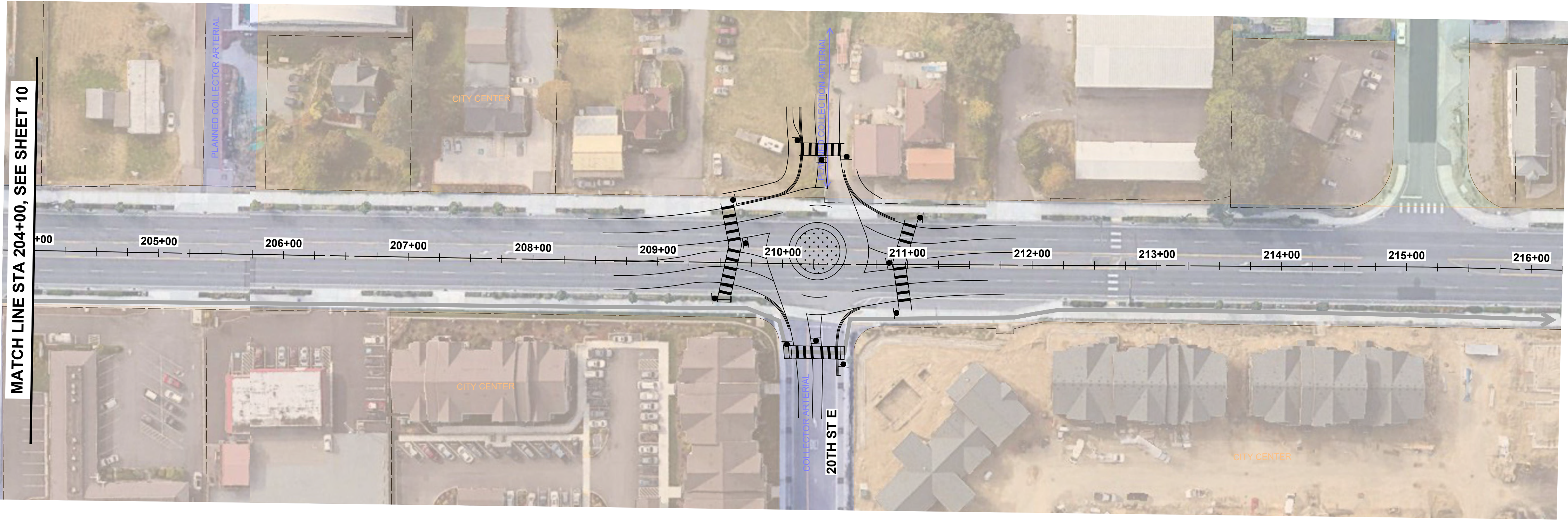
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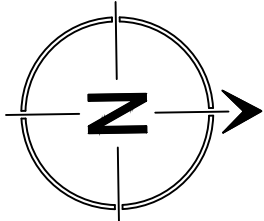
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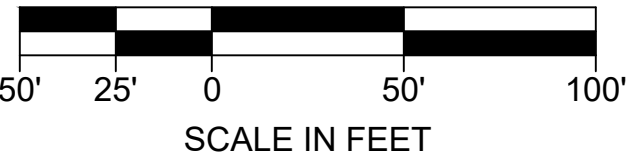


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SCALE: 1"=50' HORIZ., 1"=20' VERT.



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Reviewed	KAH	10/23
Approved	VLS	10/23
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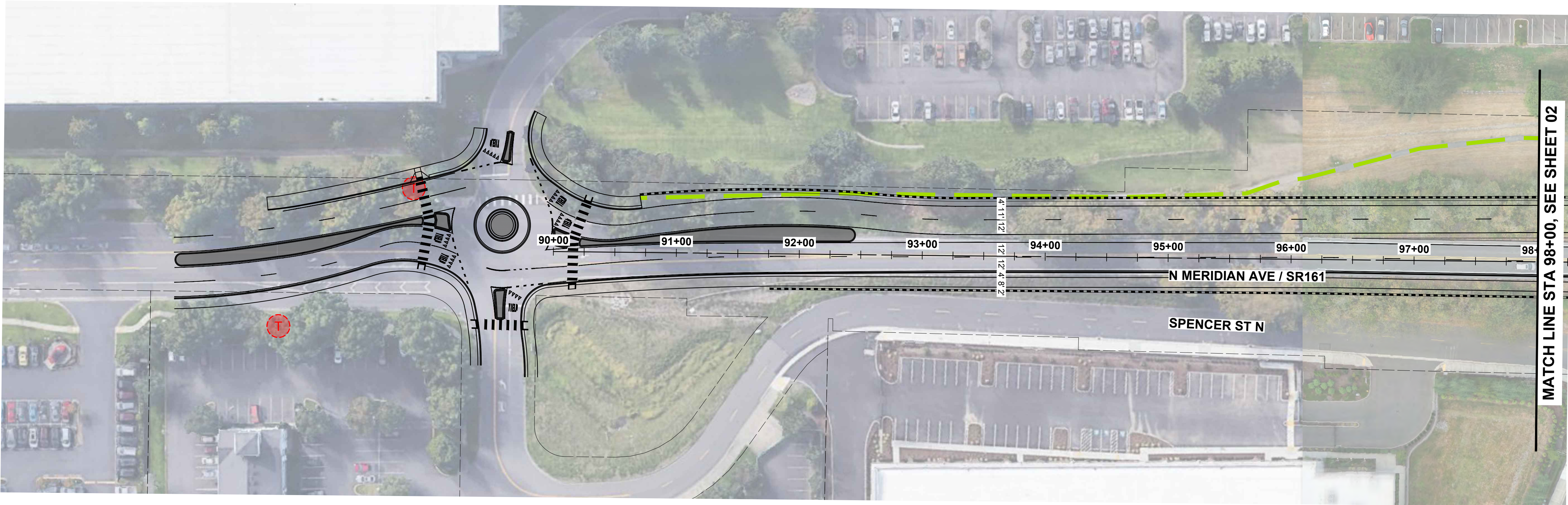


CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS	
OPTION B1 ROADWAY PLANS CONCEPT	
PROJECT NO. 221033	DRAWING NO. RP11
CONTRACT NO. -	SHEET 11 OF 11

Appendix F: Level 2 Screening: Alternative Design Concept: Alternative C

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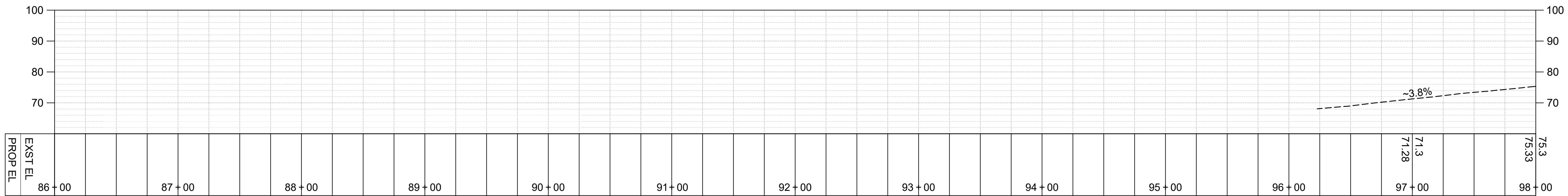
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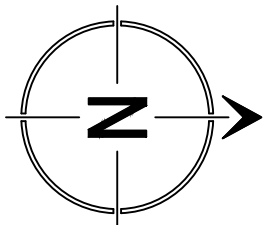
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- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



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SCALE: 1"=50' HORIZ., 1"=20' VERT.



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OPTION C
ROADWAY PLANS CONCEPT

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP01
SHEET	1
OF	11

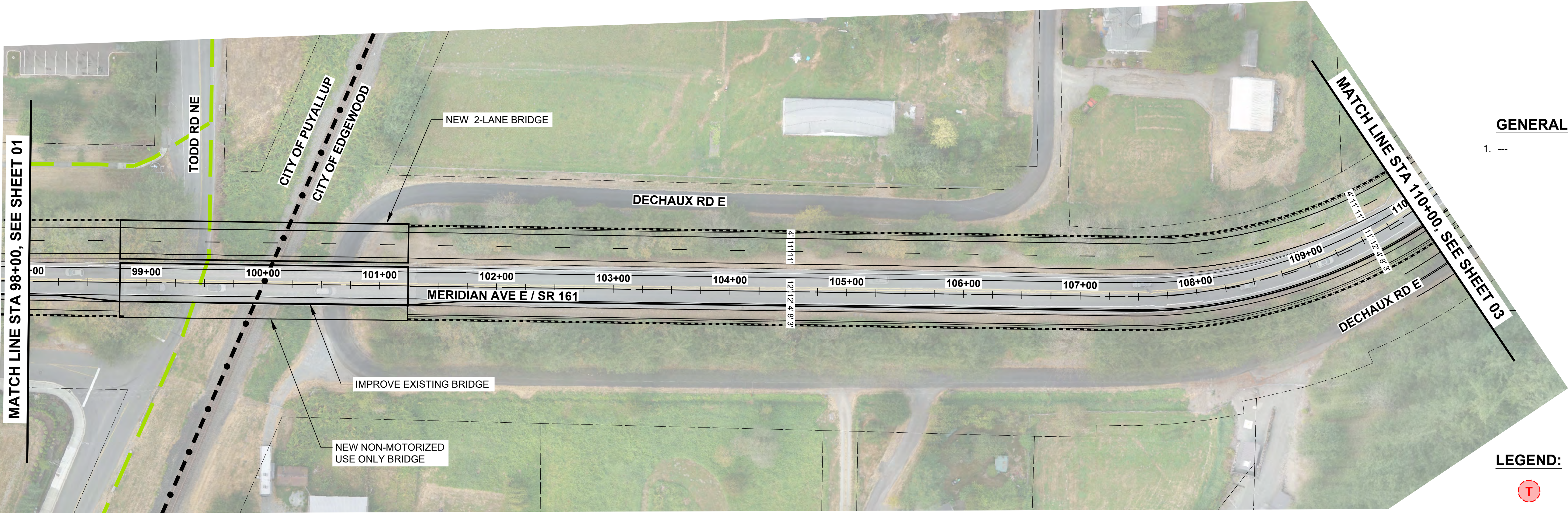
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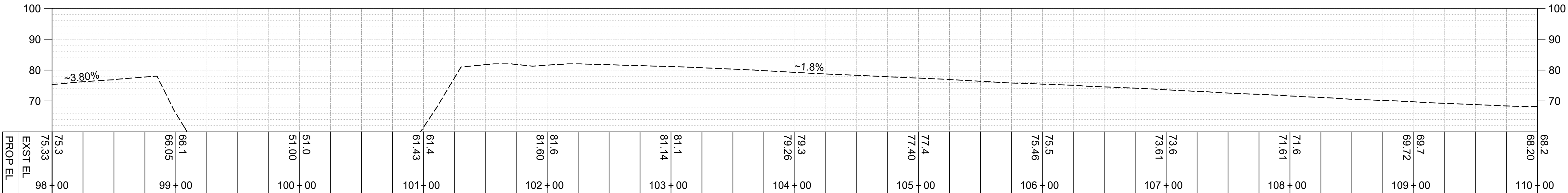
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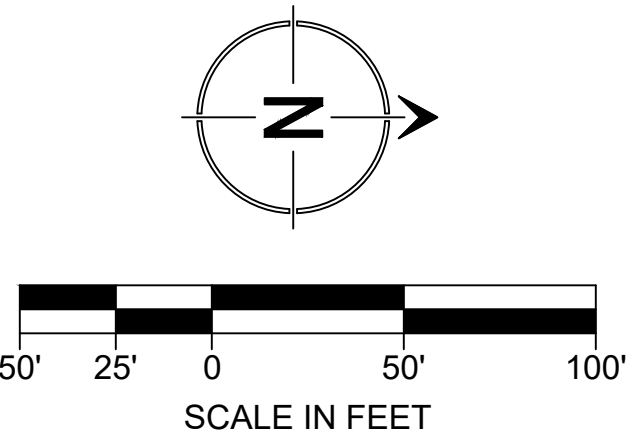
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- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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OPTION C
ROADWAY PLANS CONCEPT

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP02
SHEET	2
OF	11

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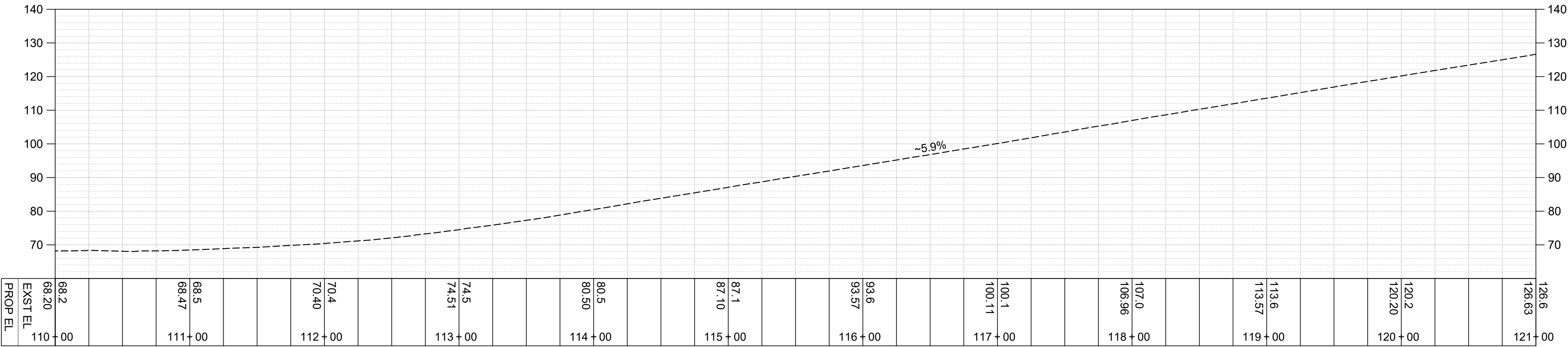
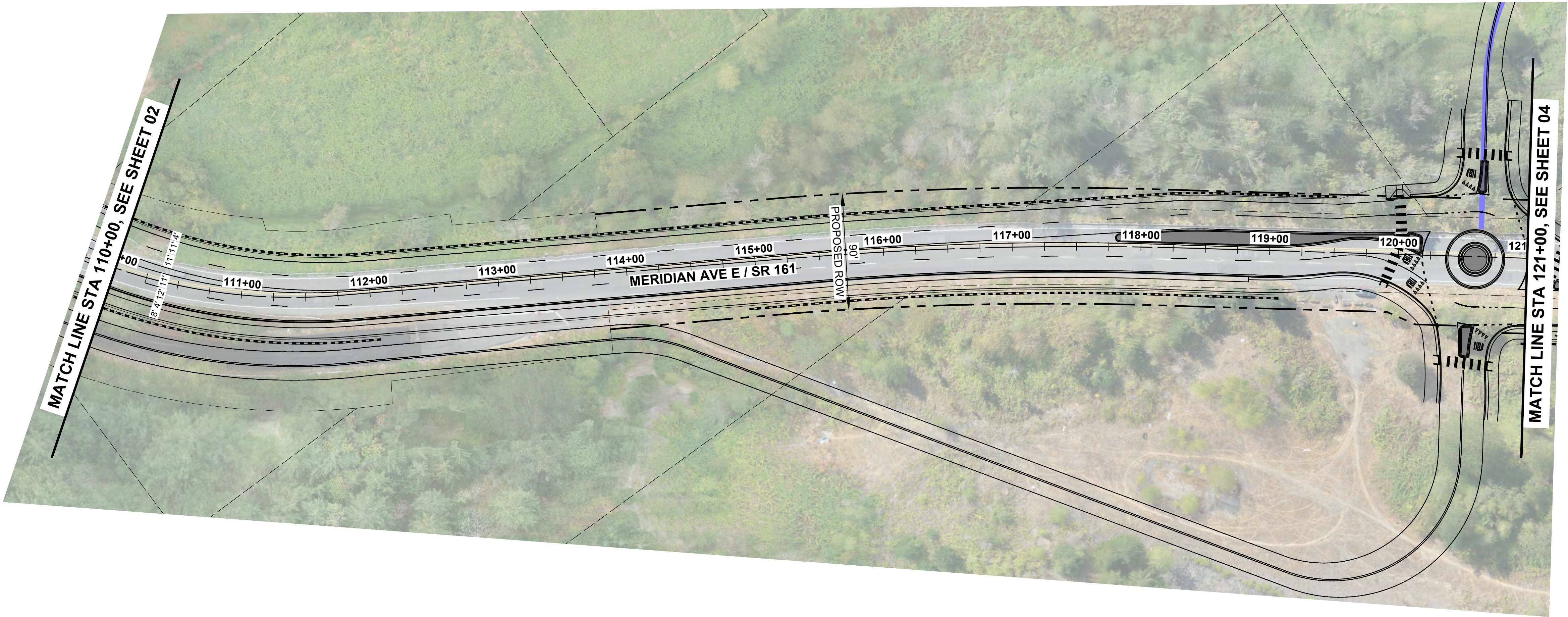
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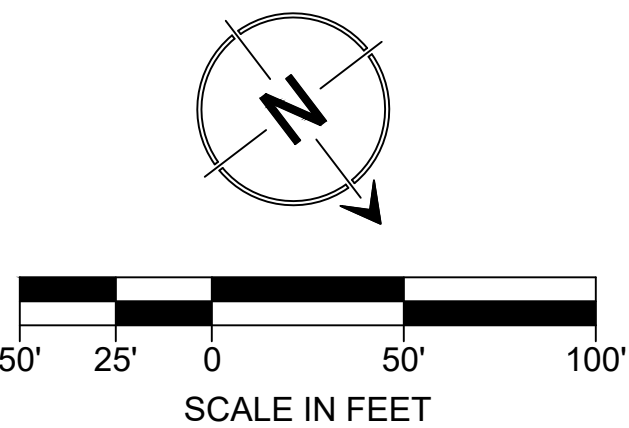
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-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



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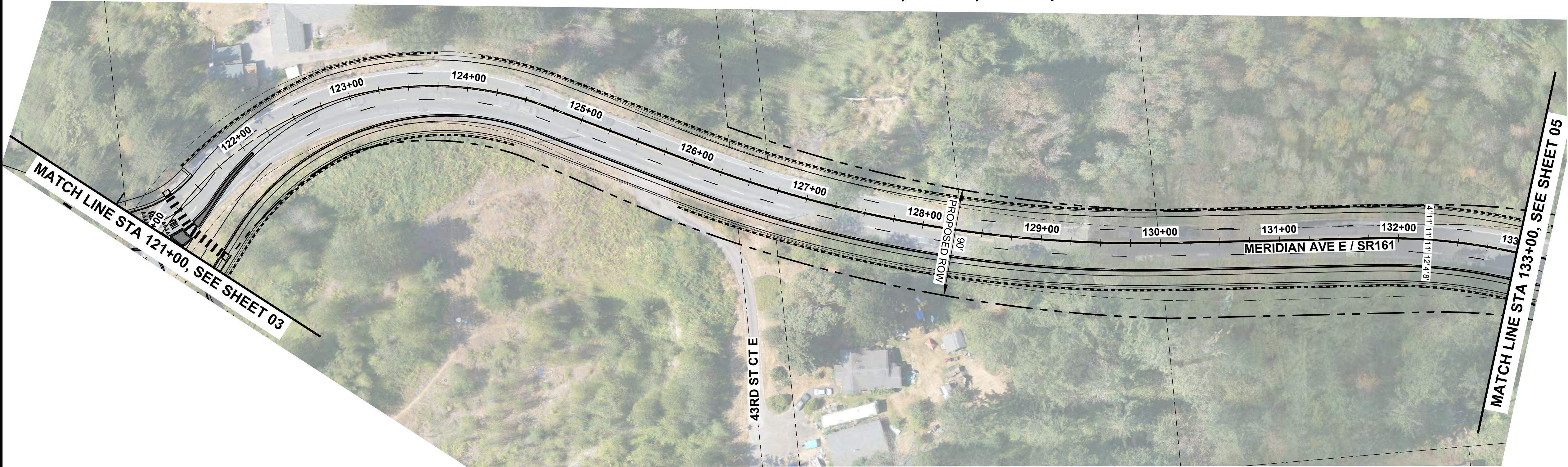
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OF 11

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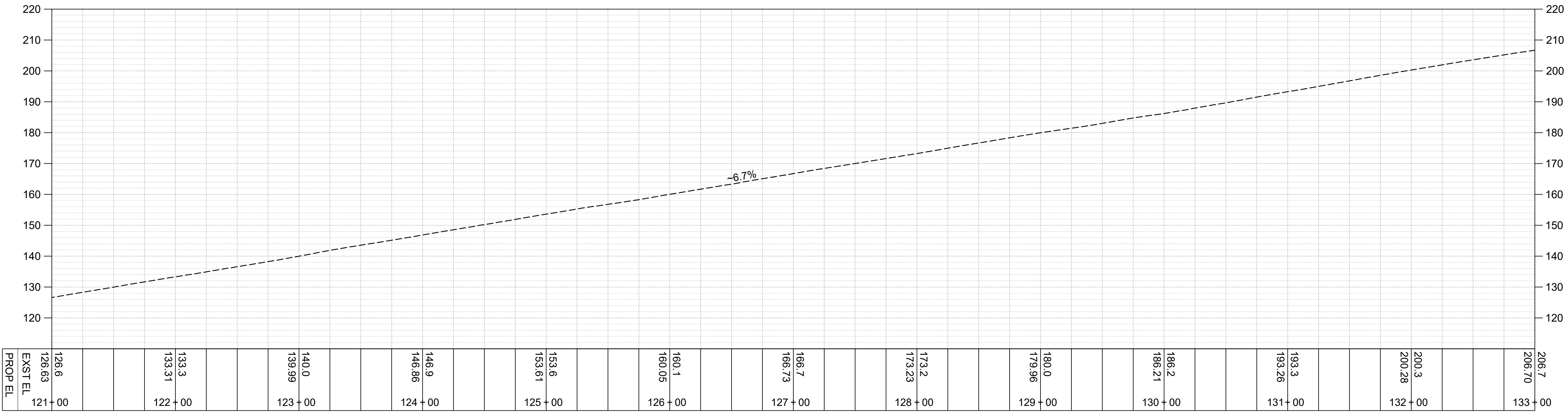
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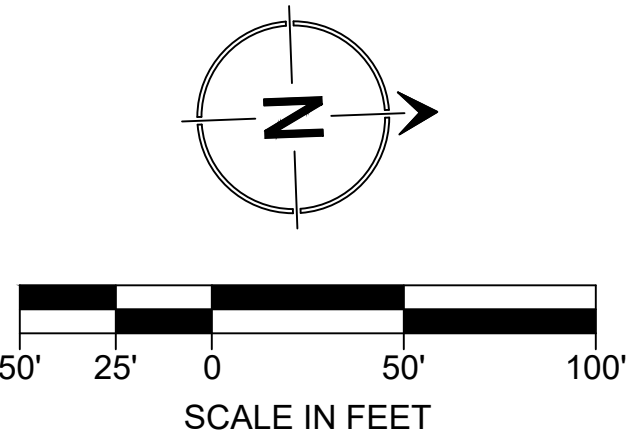
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



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SCALE: 1"=50' HORIZ., 1"=20' VERT.

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Reviewed	KAH	10/23
Approved	VLS	10/23
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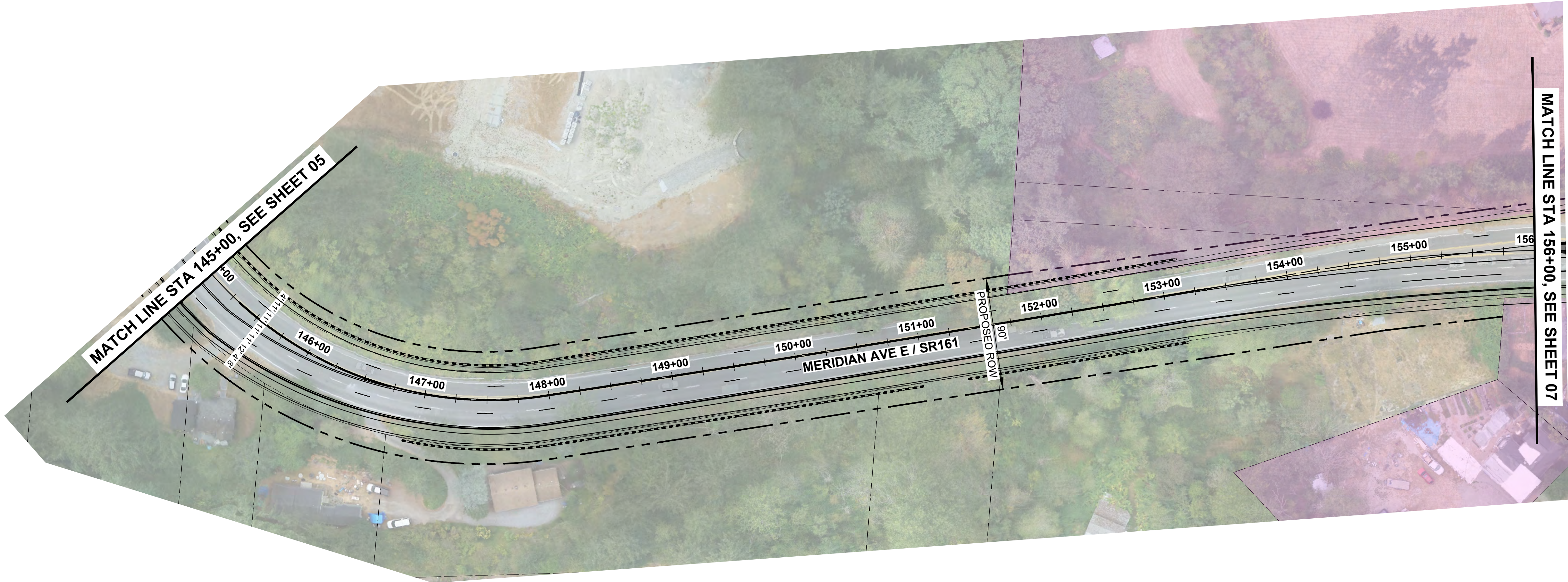


CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS	
OPTION C ROADWAY PLANS CONCEPT	
PROJECT NO. 221033	DRAWING NO. RP04
CONTRACT NO. -	SHEET 4 OF 11



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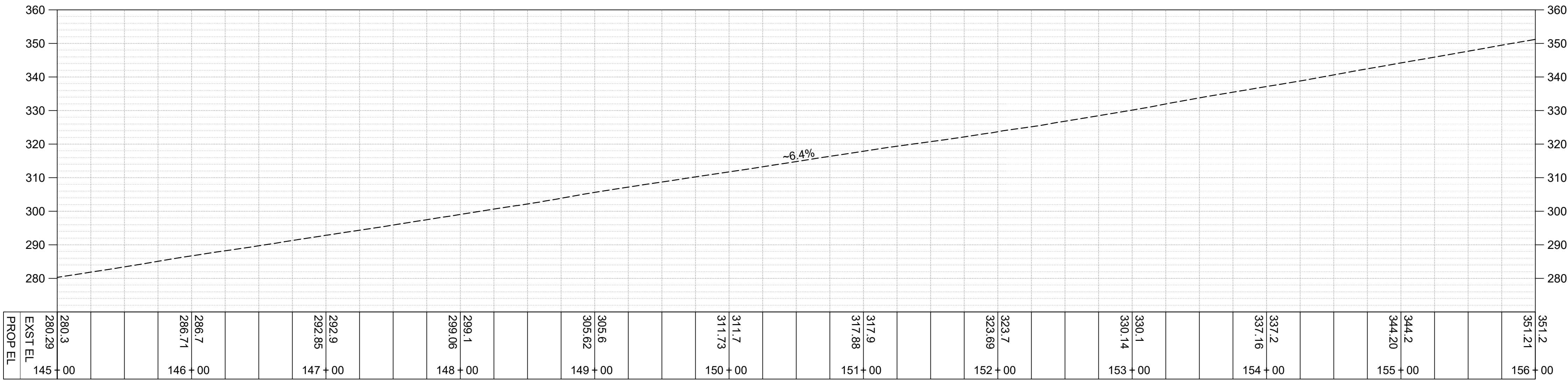
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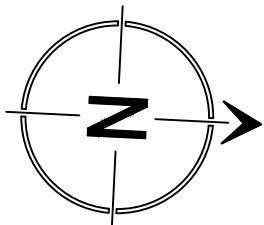
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SR 161 (EX CL) PROFILE

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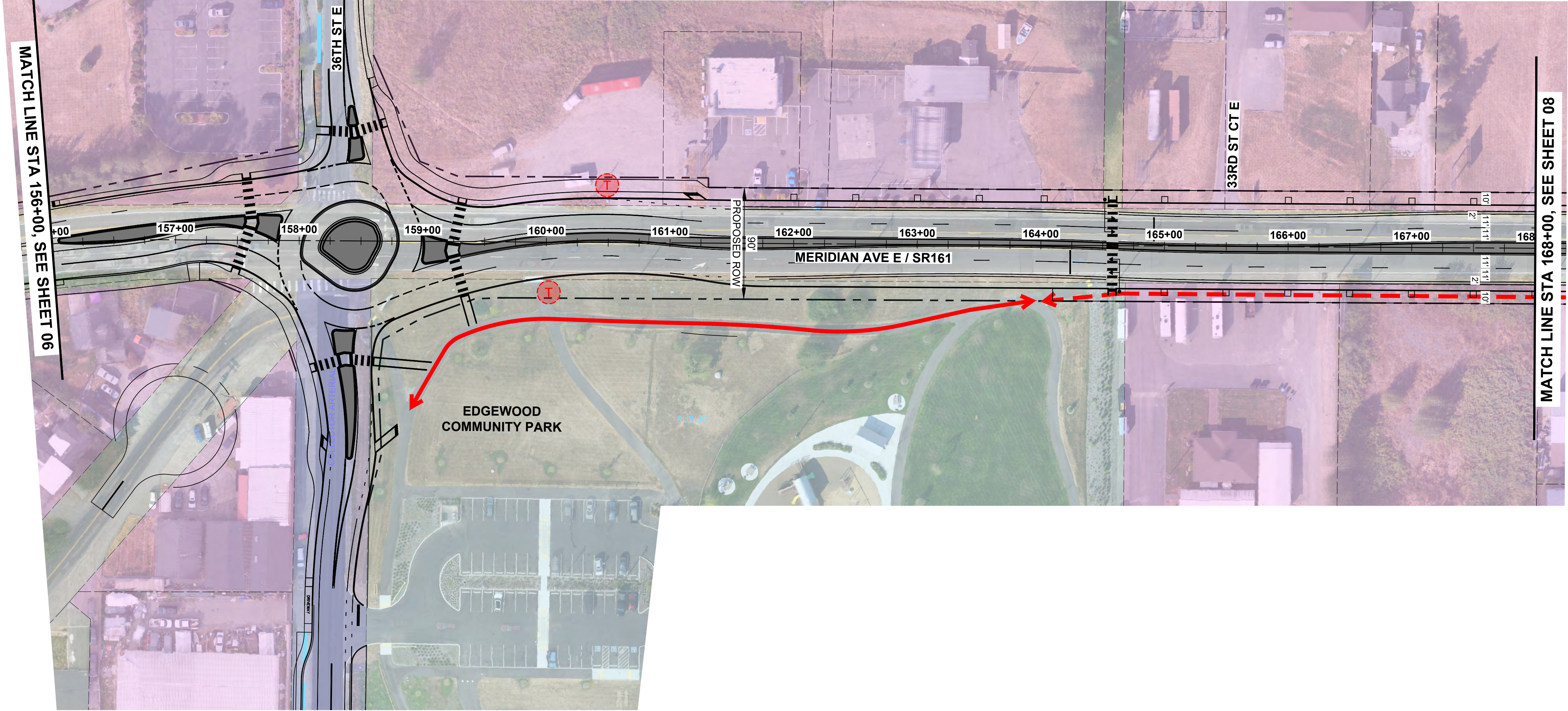
CONTRACT NO.
-

DRAWING NO.
RP06

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OF 11

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SEC. 15, T 20 N, R 04 E, W.M.



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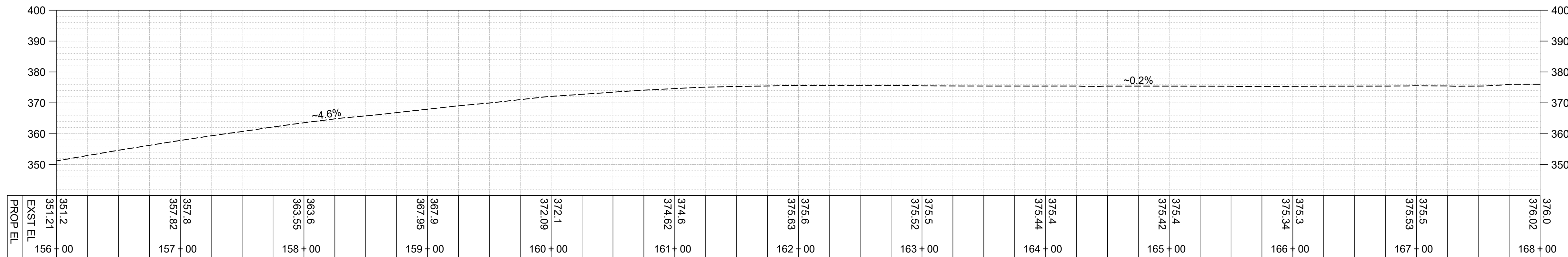
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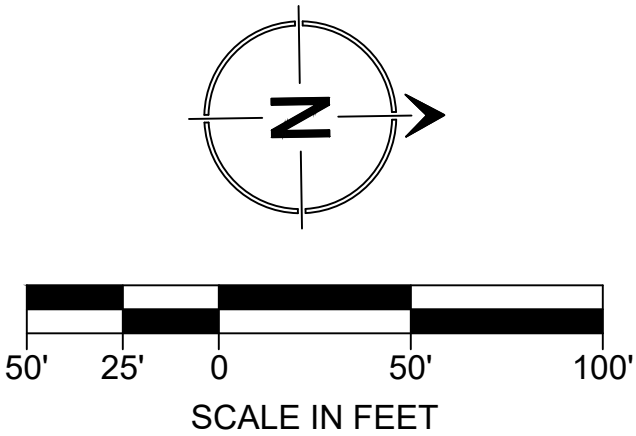
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- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		

16932 Woodinville-Redmond Road, Suite A206
Woodinville, WA 98072
(425) 883-4134 | www.tsinw.com

DRAFT

**CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS**

**OPTION C
ROADWAY PLANS CONCEPT**

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP07

SHEET 7
OF 11

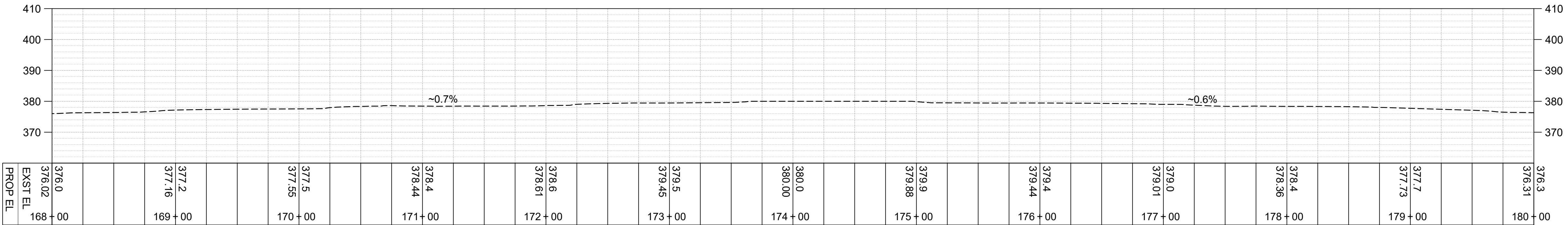
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CONSTRUCTION NOTES:

GENERAL NOTES:

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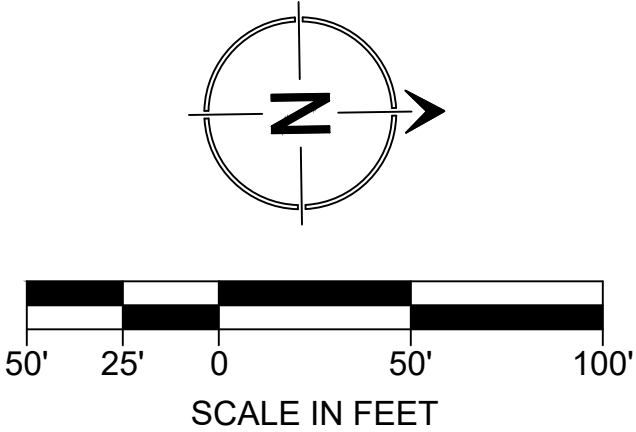
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- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	2/24
Designed	KAH	2/24
Reviewed	KAH	2/24
Approved	VLS	2/24
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION C
ROADWAY PLANS CONCEPT

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP08

SHEET 8
OF 11

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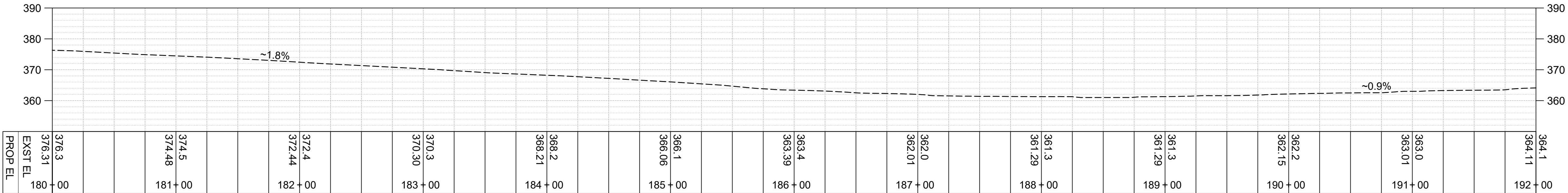
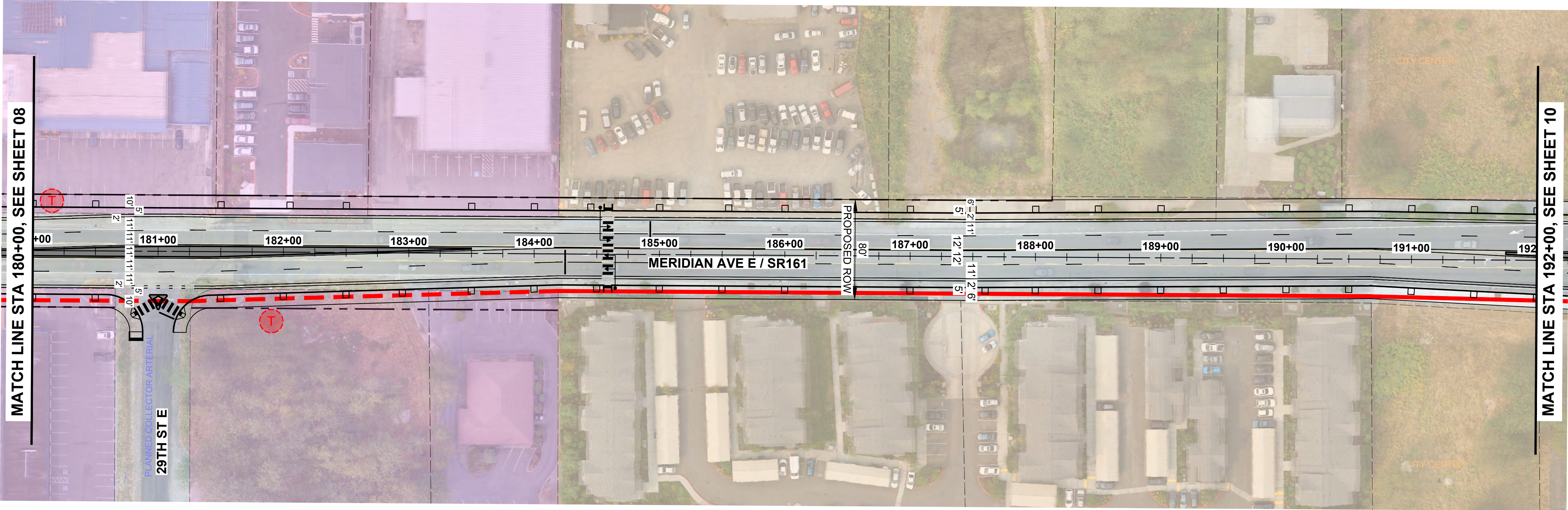
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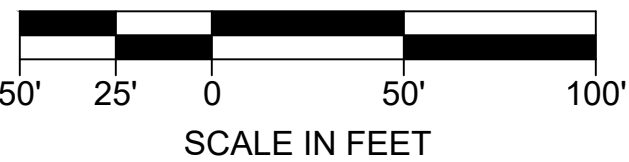
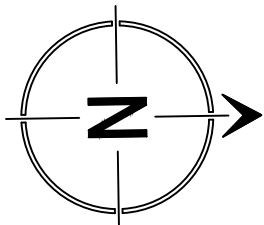
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-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS	
OPTION C ROADWAY PLANS CONCEPT	
PROJECT NO. 221033	DRAWING NO. RP09
CONTRACT NO. -	SHEET 9 OF 11

SEC. 15, T 20 N, R 04 E, W.M.

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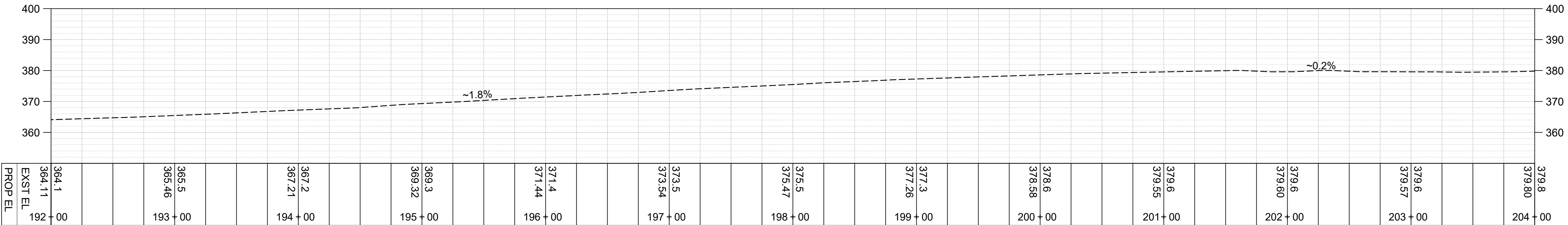
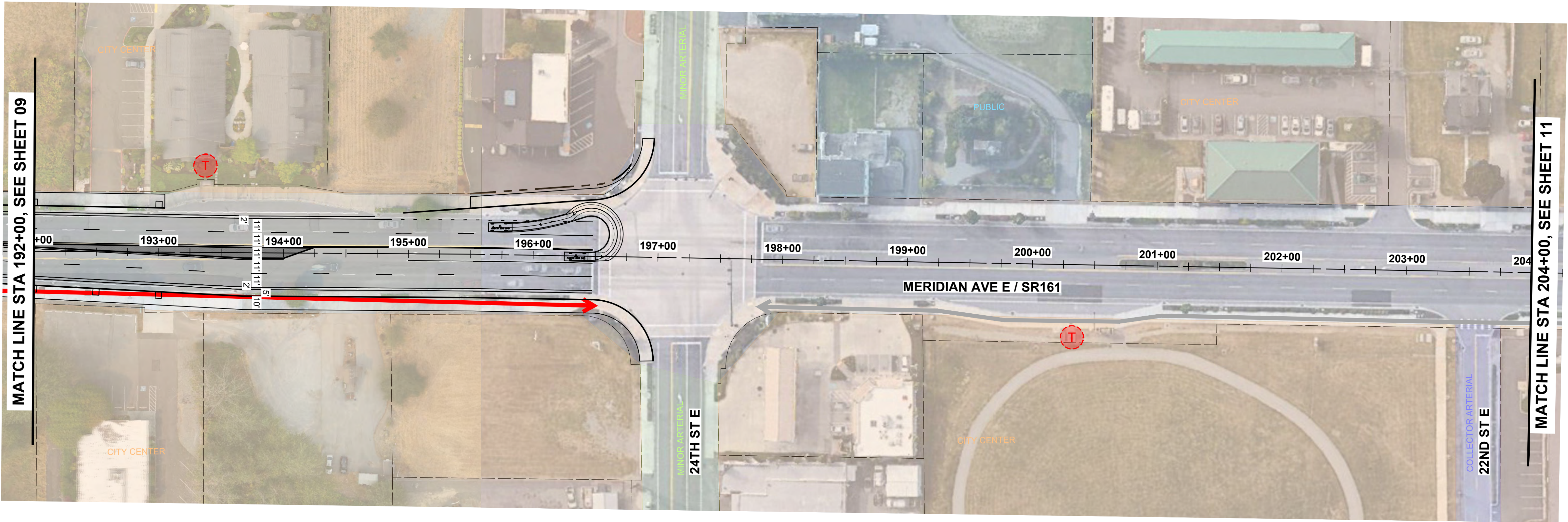
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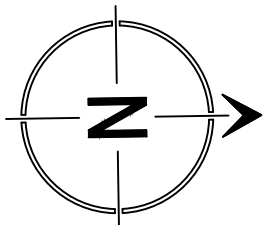
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SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY: DATE:		
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		



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CITY OF EDGEWOOD CORRIDOR IMPROVEMENTS		PROJECT NO. 221033
OPTION C ROADWAY PLANS CONCEPT		CONTRACT NO. -
		DRAWING NO. RP10
		SHEET 10 OF 11

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SEC. 15, T 20 N, R 04 E, W.M.

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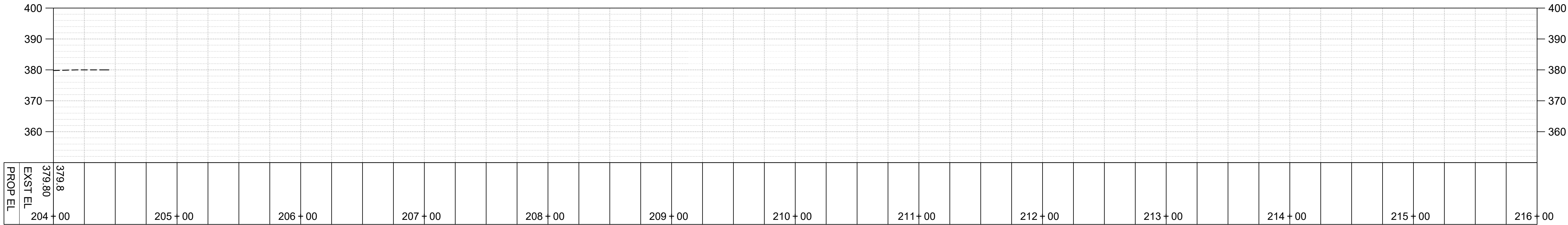
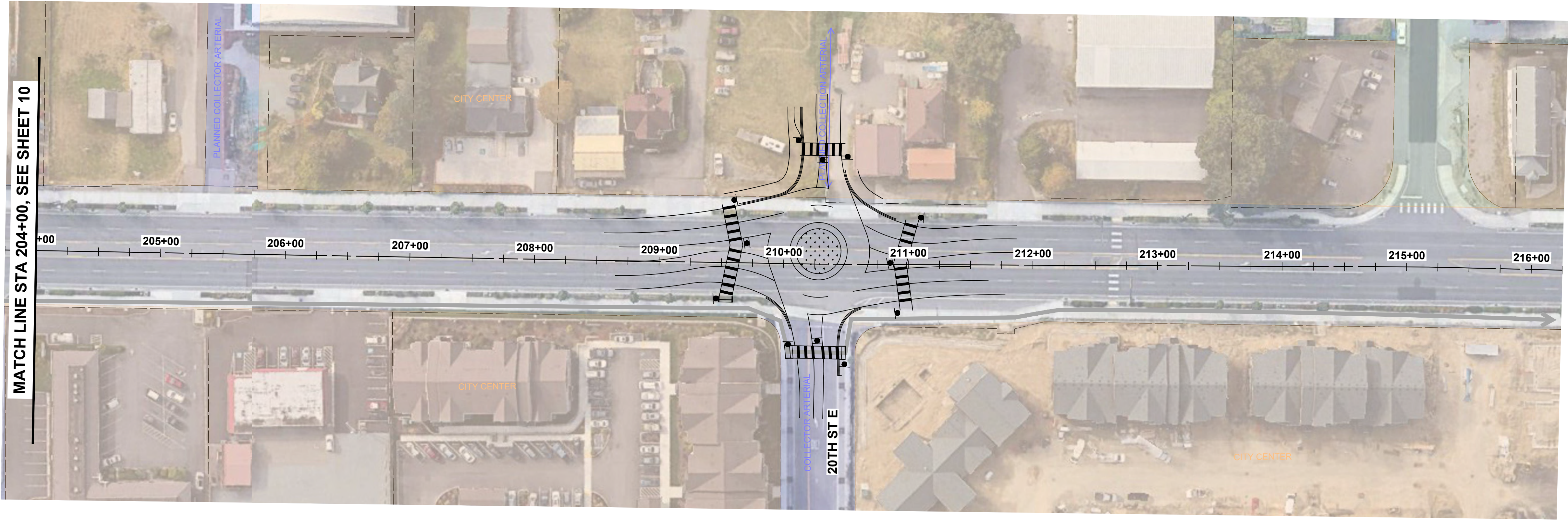
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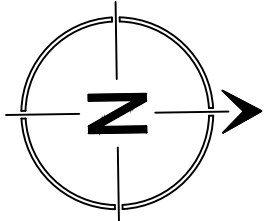
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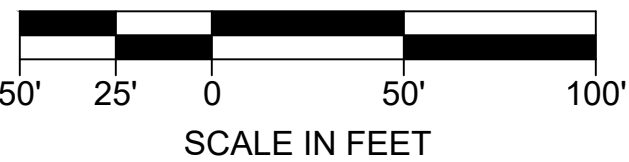
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SR 161 (EX CL) PROFILE
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION C
ROADWAY PLANS CONCEPT

PROJECT NO. 221033
CONTRACT NO. -
DRAWING NO. RP11
SHEET 11 OF 11

Appendix F: Level 2 Screening: Alternative Evaluation Criteria

City of Edgewood - Meridian Avenue Corridor Study
Alternatives Analysis / Feasibility Screening Process - Evaluation Criteria

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score		
							0 (No Benefit)	1 (Some Benefit)	2 (Higher Benefit)
Safety	Establish a safe and comfortable environment for pedestrians, bicyclists, and all roadway users	Roadway (vehicle) Safety	Baseline	Alternative reduces collisions along the corridor. Quantitative: Expected collision reduction along the corridor	3.0		Alternative does not reduce collisions along the study corridor (0-5% reduction).	Alternative minorly reduces collisions along the corridor (5-25% reduction).	Alternative reduces collisions along the corridor (> 25% reduction).
		Pedestrian Comfort / Safety	Baseline	Alternative improves pedestrian safety and comfort along the corridor. Quantitative: Pedestrian Level of Traffic Stress (PLTS) along the corridor	1.0		Alternative does not improve the PLTS along the corridor.	Alternative improves PLTS (but remains at level 3 or 4); OR Alternative improves PLTS (level 2) but does not slow vehicular traffic.	Alternative improves PLTS (level 1 or 2); AND Alternative slows vehicular traffic.
		Bicycle Comfort / Safety	Baseline	Alternative improves bicycle safety and comfort along the corridor. Quantitative: Bicycle Level of Traffic Stress (BLTS) along the corridor	1.0		Alternative does not improve the BLTS along the corridor.	Alternative improves BLTS (but remains at level 3 or 4); OR Alternative improves BLTS (level 2) but does not slow vehicular traffic.	Alternative improves BLTS (level 1 or 2); AND Alternative slows vehicular traffic.
Mobility	Implement a systematic strategy that addresses multimodal mobility and access needs along the corridor	Intersection Operations	Baseline	Alternative reduces vehicular delay at intersections and along the corridor. Quantitative: Delay / LOS conditions at the study intersections	2.0	1st	Alternative does not reduce or provides minor reductions in delay at intersections along the study corridor.	Some intersections operate at LOS F; OR Alternative reduces travel speeds along the corridor.	Alternative significantly reduces delay along the study corridor (i.e., all intersections operate at LOS E or better).
		Accessibility (ADA Facilities, Crossings, etc.)	Baseline	Alternative expands ADA accessibility along the corridor. Qualitative: Connectivity of ADA accessible routes	1.5	3rd	Alternative does not expand ADA accessible facilities along the entire corridor; AND Alternative does not shorten pedestrian crossing distances at intersection/midblock crossings.	Alternative expands ADA accessible facilities along the entire corridor; AND Alternative shortens pedestrian crossing distances at intersections <u>or</u> midblock crossings.	Alternative expands ADA accessible facilities along the entire corridor; AND Alternative shortens pedestrian crossing distances at intersections <u>and</u> midblock crossings.
		Effective Transit	Baseline	Alternative expands accessibility to transit facilities and improves transit speed and reliability. Quantitative / Qualitative: Transit travel times along the corridor and transit accessibility to adjacent communities	1.0		Alternative does not improve access to transit or improve transit operations; OR Alternative potentially increases transit travel time.	Alternative improves access to transit or transit operations.	Alternative increases access to transit and improves transit speed and reliability substantially in such a way that would make transit a more attractive travel mode.

City of Edgewood - Meridian Avenue Corridor Study
Alternatives Analysis / Feasibility Screening Process - Evaluation Criteria

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score		
							0 (No Benefit)	1 (Some Benefit)	2 (Higher Benefit)
Land Use	Support the City's Town Center Subarea Plan and other growth along the corridor	Town Center Development	Contextual	Alternative supports adjacent land use development in line with the City's Town Center Subarea Plan. Quantitative: Longest distance between pedestrian crossings Qualitative: Infrastructure to promote mixed-use development and pedestrian connectivity	1.0		Alternative is inconsistent with the vision for Town Center Subarea transportation network.	Alternative provides some pedestrian connectivity between land uses within the Town Center Subarea., via enhanced crossings at intersections/midblock locations.	Alternative provides strong pedestrian connectivity within the Town Center Subarea, via enhanced mid-block, high visibility crossings, and slow travel speeds.
		Effective Parallel Corridors	Contextual	Alternative improves intersection locations connecting to the City's planned Collector roadways, as part of the Parallel Road Network. Qualitative: Connectivity to the Parallel Roadway Network	1.0		Alternative does not improve intersections on the project corridor identified within the Parallel Roadway Network.	Alternative partially improves intersections on the project corridor identified within the Parallel Roadway Plan.	Alternative fully improves intersections along the project corridor in line with the Parallel Roadway Plan.
		Local Business Access / Integration	Contextual	Alternative provides safe vehicular access to businesses and residences along the corridor. Qualitative: Accessibility to developments along the corridor	2.0	2nd	Alternative implements features which restrict access to adjacent properties, and does not provide roadway design features which accommodate U-turns to aid access.	Alternative implements features which restrict access to adjacent properties, but provide roadway design features which accommodate U-turns to aid access.	Alternative implements features which maintain full-access to adjacent properties.
		Corridor Aesthetics	Contextual	Alternative provides landscaping, lighting, and / or placemaking improvements to the corridor. Qualitative: Landscaping / lighting improvements to the corridor	1.0		Alternative does not provide improvements to landscaping or lighting along the corridor.	Alternative provides landscaping and/or lighting improvements to a portion of the corridor.	Alternative provides landscaping and lighting improvements along the entire corridor.

City of Edgewood - Meridian Avenue Corridor Study
Alternatives Analysis / Feasibility Screening Process - Evaluation Criteria

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score		
							0 (No Benefit)	1 (Some Benefit)	2 (Higher Benefit)
Community Involvement / Community Benefit	Collaborate with WSDOT, Pierce Transit, other stakeholders, and the public to confirm and address future needs	Community Support / Acceptance (survey results)	Contextual	Alternative receives widespread support from the community. Quantitative: Survey results	2.0		Alternative received little to no community support (>10%).	Alternative received some community support (less than 50%).	Alternative was widely supported by the community (over 50%).
		Regional Mobility / Continuity / Resiliency	Contextual	Alternative aligns with stakeholder "complete street" and multimodal priorities. Qualitative: Compatible with relevant WSDOT and Pierce Transit design guidelines and corridor improvement plans	1.0		Alternative does not include multimodal infrastructure.	Alternative provides multimodal infrastructure along segments of the project corridor or along parallel routes.	Alternative provides multimodal infrastructure along the entire project corridor.
		Constructability / Extendibility	Contextual	Alternative provides a cost-effective solution to implementing project improvements along the corridor. Quantitative: Improvement costs	1.5		Alternative requires high capital and/or maintenance costs.	Alternative requires moderate capital and/or maintenance costs.	Alternative requires low capital and/or maintenance costs.
		Funding Availability / Grant Applicability	Contextual	Alternative contains features that will allow the project to apply for local / regional / national funding. Qualitative: Improvement alignment with funding priorities	1.0		Alternative does not include features which would qualify the project for grant funding. (No grant alignment categories)	Alternative includes some features which align with the priorities of a few grant programs. (1-2 grant alignment categories)	Alternative strongly aligns with the priorities of several grant programs. (3+ grant alignment categories)
Natural Environment	Minimize impacts to the environment	Impacts on Natural Environment	Contextual	Alternative minimizes impacts to the areas adjacent to the roadway corridor, including steep slopes and other sensitive / critical areas. Quantitative: Area of Influence / Project Footprint	1.5		Alternative requires substantial intrusion along existing steep slopes and sensitive areas adjacent to the roadway along a majority of the corridor.	Alternative requires some intrusion along existing steep slopes and sensitive areas adjacent to the roadway at some locations along the corridor.	Alternative requires minimal intrusion along existing steep slopes and sensitive areas adjacent to the roadway at few locations along the corridor.
		Stormwater Management	Contextual	Alternative improves conditions for surface water runoff, including detention and water quality treatment infrastructure. Qualitative: Addition of pollution generating impervious surfaces (PGIS) and/or pervious surfaces	1.0		Alternative adds pollution generating impervious surfaces (PGIS) without associated stormwater management facilities.	Alternative adds pollution generating impervious surfaces (PGIS) with associated stormwater management facilities.	Alternative adds non-pollution generating impervious surfaces (NPGIS) and/or pervious surfaces along the roadway.

Appendix F: Level 2 Screening: Alternative Evaluation Metrics

Appendix F: Level 2 Screening: Alternative Evaluation Metrics: Segment 1

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1
Alternatives Analysis / Feasibility Screening Process - Evaluation Metrics

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Evaluation Metrics				
							No Build	Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Safety	Establish a safe and comfortable environment for pedestrians, bicyclists, and all roadway users	Roadway (vehicle) Safety	Baseline	Alternative reduces collisions along the corridor. Quantitative: Expected collision reduction along the corridor	3.0		<u>5-Year Intersection Collisions</u> 67 <u>5-Year Segment Collisions</u> 15	<u>5-Year Intersection Collisions</u> 63 <u>5-Year Segment Collisions</u> 15 (~5% reduction)	<u>5-Year Intersection Collisions</u> 55 <u>5-Year Segment Collisions</u> 4 (~28% reduction)	<u>5-Year Intersection Collisions</u> 53 <u>5-Year Segment Collisions</u> 4 (~30% reduction)	<u>5-Year Intersection Collisions</u> 53 <u>5-Year Segment Collisions</u> 4 (~30% reduction)
		Pedestrian Comfort / Safety	Baseline	Alternative improves pedestrian safety and comfort along the corridor. Quantitative: Pedestrian Level of Traffic Stress (PLTS) along the corridor	1.0		No Sidewalk Travel Lanes: 1 per direction AADT: ~16,700 Speed Limit: 35 mph Pedestrian LTS 4	Sidewalk w/ Robust Barrier Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph Pedestrian LTS 2	Sidewalk w/ Robust Barrier Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph <i>*no vertical separation between peds and bikes</i> Pedestrian LTS 2	Sidewalk w/ Robust Barrier Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph <i>*speed reduction associated with roundabouts</i> Pedestrian LTS 2	Sidewalk w/ Robust Barrier Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph <i>*speed reduction associated with roundabouts</i> Pedestrian LTS 2
		Bicycle Comfort / Safety	Baseline	Alternative improves bicycle safety and comfort along the corridor. Quantitative: Bicycle Level of Traffic Stress (BLTS) along the corridor	1.0		No Bike Facility Travel Lanes: 1 per direction AADT: ~16,700 Speed Limit: 35 mph Bicycle LTS 4	Vertically Delineated Bike Lane Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph Bicycle LTS 3	Protected Bike Lane Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph Bicycle LTS 2	Vertically Delineated Bike Lane Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 25 mph <i>*speed reduction associated with roundabouts</i> Bicycle LTS 2	Vertically Delineated Bike Lane Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 25 mph <i>*speed reduction associated with roundabouts</i> Bicycle LTS 2
Mobility	Implement a systematic strategy that addresses multimodal mobility and access needs along the corridor	Intersection Operations	Baseline	Alternative reduces vehicular delay at intersections and along the corridor. Quantitative: Delay / LOS conditions at the study intersections	2.0	1st	<u>Intersection: PM Delay (LOS)</u> 24th St: 47 sec (D) 29th St: >200 sec (F) 32nd St: >200 sec (F) 36th St: 40 sec (D)	<u>Intersection: PM Delay (LOS)</u> 24th St: 47 sec (D) 29th St: 95 sec (F) 32nd St: 12 sec (B) 36th St: 27 sec (C)	<u>Intersection: PM Delay (LOS)</u> 24th St: 47 sec (D) 29th St: 14 sec (B) 32nd St: 6 sec (A) 36th St: 7 sec (A) <i>*reduced travel speeds associated with roundabouts</i>	<u>Intersection: PM Delay (LOS)</u> 24th St: 47 sec (D) 29th St: 14 sec (B) 32nd St: 6 sec (A) 36th St: 7 sec (A) <i>*reduced travel speeds associated with roundabouts</i>	<u>Intersection: PM Delay (LOS)</u> 24th St: 47 sec (D) 29th St: 14 sec (B) 32nd St: 6 sec (A) 36th St: 7 sec (A) <i>*reduced travel speeds associated with roundabouts</i>
		Accessibility (ADA Facilities, Crossings, etc.)	Baseline	Alternative expands ADA accessibility along the corridor. Qualitative: Connectivity of ADA accessible routes	1.5	3rd	Crossing Distance Intersection: 54' Midblock: n/a Incomplete sidewalk network	<u>Crossing Distance</u> Intersection: 70' Midblock: 29' Sidewalks provided along entire corridor w/ ADA accessible ramps	<u>Crossing Distance</u> Intersection: 75' Midblock: 23' Sidewalks provided along entire corridor w/ ADA accessible ramps	<u>Crossing Distance</u> Intersection: 22' Midblock: 29' Sidewalks provided along entire corridor w/ ADA accessible ramps	<u>Crossing Distance</u> Intersection: 22' Midblock: 29' Sidewalks provided along entire corridor w/ ADA accessible ramps
		Effective Transit	Baseline	Alternative expands accessibility to transit facilities and improves transit speed and reliability. Quantitative / Qualitative: Transit travel times along the corridor and transit accessibility to adjacent communities	1.0		N/A	Reduces transit delay w/ in-line stops (no delay associated with merging into travel flow)	Reduces transit delay w/ in-line stops (no delay associated with merging into travel flow)	Reduces transit delay w/ in-line stops (no delay associated with merging into travel flow). Potential increases in travel time associated with reduced speed along corridor and travel time through roundabouts.	Reduces transit delay w/ in-line stops (no delay associated with merging into travel flow). Potential increases in travel time associated with reduced speed along corridor and travel time through roundabouts.

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1

Alternatives Analysis / Feasibility Screening Process - Evaluation Metrics

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Evaluation Metrics				
							No Build	Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Land Use	Support the City's Town Center Subarea Plan and other growth along the corridor	Town Center Development	Contextual	Alternative supports adjacent land use development in line with the City's Town Center Subarea Plan. Quantitative: Longest distance between pedestrian crossings Qualitative: Infrastructure to promote mixed-use development and pedestrian connectivity	1.0		Longest Distance btw. Marked crossings: 3,800 ft	Longest Distance btw. Marked crossings: 1,300 ft	Longest Distance btw. Marked crossings: 1,600 ft	Longest Distance btw. Marked crossings: 1,300 ft <i>*reduced speeds associated with roundabout will create a pedestrian-friendly environment</i>	Longest Distance btw. Marked crossings: 1,300 ft <i>*reduced speeds associated with roundabout will create a pedestrian-friendly environment</i>
		Effective Parallel Corridors	Contextual	Alternative improves intersection locations connecting to the City's planned Collector roadways, as part of the Parallel Road Network. Qualitative: Connectivity to the Parallel Roadway Network	1.0		N/A	Project fully improves intersections at 32nd St and 36th St to reduce minor approach delay; maintains connectivity opportunities at 29th St (full-access)	Project fully improves intersections at 32nd St and 36th St to reduce minor approach delay; reduces connectivity opportunities at 29th St (right-in/right-out)	Project fully improves intersections at 32nd St and 36th St to reduce minor approach delay; reduces connectivity opportunities at 29th St (right-in/right-out)	Project fully improves intersections at 32nd St and 36th St to reduce minor approach delay; reduces connectivity opportunities at 29th St (right-in/right-out)
		Local Business Access / Integration	Contextual	Alternative provides safe vehicular access to businesses and residences along the corridor. Qualitative: Accessibility to developments along the corridor	2.0	2nd	N/A	TWLT will allow maintain full-access to driveways and minor street approaches	Median will restrict turning movements to/from driveways but U-turns will be allowed at major intersections	Median will restrict turning movements to/from driveways but U-turns will be allowed at major intersections via roundabouts	Median will restrict turning movements to/from minor driveways but U-turns will be allowed at major intersections via roundabouts
		Corridor Aesthetics	Contextual	Alternative provides landscaping, lighting, and / or placemaking improvements to the corridor. Qualitative: Landscaping / lighting improvements to the corridor	1.0		N/A	Street and pedestrian lighting improvements along corridor; landscaping improvements along roadside	Street and pedestrian lighting improvements along corridor; landscaping improvements along roadside <u>and</u> within median	Street and pedestrian lighting improvements along corridor; landscaping improvements along roadside <u>and</u> within median	Street and pedestrian lighting improvements along corridor; landscaping improvements along roadside <u>and</u> within median

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1

Alternatives Analysis / Feasibility Screening Process - Evaluation Metrics

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Evaluation Metrics				
							No Build	Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Community Involvement / Community Benefit	Collaborate with WSDOT, Pierce Transit, other stakeholders, and the public to confirm and address future needs	Community Support / Acceptance (survey results)	Contextual	Alternative receives widespread support from the community. Quantitative: Survey results	2.0		N/A	22% First Choice	70% First Choice	Aligns with Option A bicycle facilities	Aligns with Option B bicycle facilities
		Regional Mobility / Continuity / Resiliency	Contextual	Alternative aligns with stakeholder "complete street" and multimodal priorities. Qualitative: Compatible with relevant WSDOT and Pierce Transit design guidelines and corridor improvement plans	1.0		No multimodal infrastructure along corridor	Alternative provides multimodal infrastructure along the entire segment; however, in-line transit stops may interfere with continuous bicycle facilities.	Alternative provides multimodal infrastructure along the entire segment.	Alternative provides multimodal infrastructure along the entire segment; however, in-line transit stops may interfere with continuous bicycle facilities.	Alternative provides multimodal infrastructure along the entire segment.
		Constructability / Extendibility	Contextual	Alternative provides a cost-effective solution to implementing project improvements along the corridor. Quantitative: Improvement costs	1.5		N/A	Capital Costs: Widen corridor from 3-lane to 5-lane; maintain existing center turn lane; modify 36th St signal; install new signal at 32nd St Maintenance Costs: Ongoing signal operation costs	Capital Costs: Widen corridor from 3-lane to 5-lane; construct center raised median; modify 36th St signal; install new signal at 32nd St; U-turn widening at 24th St and 32nd St Maintenance Costs: Signal operation cost; median landscaping maintenance costs	Capital Costs: Widen corridor from 3-lane to 5-lane; construct center raised median; install roundabout at 32nd St and 36th St Maintenance Costs: Median landscaping maintenance costs	Capital Costs: Widen corridor from 3-lane to 5-lane; construct center raised median; install roundabout at 32nd St and 36th St Maintenance Costs: Median landscaping maintenance costs
		Funding Availability / Grant Applicability	Contextual	Alternative contains features that will allow the project to apply for local / regional / national funding. Qualitative: Improvement alignment with funding priorities	1.0		N/A	Grant alignment categories: Active Transportation (ped/bike facilities) Community Connectivity (enhanced crossings and slowing traffic)	Grant alignment categories: Safety (access control and roundabouts) Active Transportation (ped/bike facilities) Community Connectivity (enhanced crossings and slowing traffic)	Grant alignment categories: Safety (access control and roundabouts) Active Transportation (ped/bike facilities) Community Connectivity (enhanced crossings and slowing traffic)	Grant alignment categories: Safety (access control and roundabouts) Active Transportation (ped/bike facilities) Community Connectivity (enhanced crossings and slowing traffic)
Natural Environment	Minimize impacts to the environment	Impacts on Natural Environment	Contextual	Alternative minimizes impacts to the areas adjacent to the roadway corridor, including steep slopes and other sensitive / critical areas. Quantitative: Area of Influence / Project Footprint	1.5		N/A	Proposed ROW = 90' Improvements within the proposed ROW at intersections with minimal intrusion into adjacent businesses	Proposed ROW = 90' Improvements extend beyond proposed ROW at intersections with some intrusion into adjacent businesses (due to widening for U-turns)	Proposed ROW = 90' Improvements within the proposed ROW at intersections with minimal intrusion into adjacent businesses	Proposed ROW = 90' Improvements within the proposed ROW at intersections with minimal intrusion into adjacent businesses
		Stormwater Management	Contextual	Alternative improves conditions for surface water runoff, including detention and water quality treatment infrastructure. Qualitative: Addition of pollution generating impervious surfaces (PGIS) and/or pervious surfaces	1.0		Minimal stormwater facilities along the corridor	Alternative adds pollution generating impervious surfaces (PGIS) with the addition of 2 new vehicular lanes along the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor.	Alternative adds pollution generating impervious surfaces (PGIS) with the addition of 2 new vehicular lanes along the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor. Increase in pervious surfaces with the addition of a center median.	Alternative adds pollution generating impervious surfaces (PGIS) with the addition of 2 new vehicular lanes along the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor. Increase in pervious surfaces with the addition of a center median.	Alternative adds pollution generating impervious surfaces (PGIS) with the addition of 2 new vehicular lanes along the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor. Center median increases pervious surfaces. Increase in pervious surfaces with the addition of a center median.

Appendix F: Level 2 Screening: Alternative Evaluation Metrics: Segment 2

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2
Alternatives Analysis / Feasibility Screening Process - Evaluation Metrics

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Evaluation Metrics				
							No Build	Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Safety		Roadway (vehicle) Safety	Baseline	Alternative reduces collisions along the corridor. Quantitative: Expected collision reduction along the corridor	3.0		<u>5-Year Intersection Collisions</u> 53 <u>5-Year Segment Collisions</u> 18	<u>5-Year Intersection Collisions</u> 46 <u>5-Year Segment Collisions</u> 18 (~10% reduction)	<u>5-Year Intersection Collisions</u> 25 <u>5-Year Segment Collisions</u> 18 (~40% reduction)	<u>5-Year Intersection Collisions</u> 48 <u>5-Year Segment Collisions</u> 18 (~7% reduction)	<u>5-Year Intersection Collisions</u> 41 <u>5-Year Segment Collisions</u> 18 (~17% reduction)
		Pedestrian Comfort / Safety	Baseline	Alternative improves pedestrian safety and comfort along the corridor. Quantitative: Pedestrian Level of Traffic Stress (PLTS) along the corridor	1.0		No Sidewalk Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 35 mph Pedestrian LTS 4	Multi-use Path w/ Robust Barrier Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 35 mph <i>*no separation between peds and bikes</i> Pedestrian LTS 2	No Sidewalk Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph Pedestrian LTS 4	Multi-use Path w/ Robust Barrier Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 25 mph <i>*no separation btwn peds & bikes</i> <i>*speed reduction associated with roundabouts</i> Pedestrian LTS 2	Multi-use Path w/ Robust Barrier Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 25 mph <i>*no separation btwn peds & bikes</i> <i>*speed reduction associated with roundabouts</i> Pedestrian LTS 2
		Bicycle Comfort / Safety	Baseline	Alternative improves bicycle safety and comfort along the corridor. Quantitative: Bicycle Level of Traffic Stress (BLTS) along the corridor	1.0		No Bike Facility Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 35 mph Bicycle LTS 4	Multi-use Path w/ Robust Barrier Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 35 mph <i>*no separation between peds and bikes</i> Bicycle LTS 2	Painted Shoulder (4 foot) Travel Lanes: 2 per direction AADT: ~16,700 Speed Limit: 35 mph Bicycle LTS 4	Multi-use Path w/ Robust Barrier Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 25 mph <i>*no separation btwn peds & bikes</i> <i>*speed reduction associated with roundabouts</i> Bicycle LTS 2	Multi-use Path w/ Robust Barrier Travel Lanes: 1-2 per direction AADT: ~16,700 Speed Limit: 25 mph <i>*no separation btwn peds & bikes</i> <i>*speed reduction associated with roundabouts</i> Bicycle LTS 2
Mobility	Implement a systematic strategy that addresses multimodal mobility, access, and safety needs along the corridor	Intersection Operations	Baseline	Alternative reduces vehicular delay at intersections and along the corridor. Quantitative: Delay / LOS conditions at the study intersections	2.0	1st	<u>Intersection: PM Delay (LOS)</u> 36th St: 40 sec (D) 102nd Ave: 84 sec (F) Dechaux Rd: 13 sec (B)	<u>Intersection: PM Delay (LOS)</u> 36th St: 27 sec (C) 102nd Ave: 84 sec (F) Dechaux Rd: 2 sec (A)	<u>Intersection: PM Delay (LOS)</u> 36th St: 27 sec (C) 102nd Ave: 12 sec (B) Dechaux Rd: 1 sec (A)	<u>Intersection: PM Delay (LOS)</u> 36th St: 7 sec (A) 102nd Ave: 29 sec (D) Dechaux Rd: 4 sec (A) <i>*reduced travel speeds associated with roundabouts</i>	<u>Intersection: PM Delay (LOS)</u> 36th St: 7 sec (A) 102nd Ave: 29 sec (D) Dechaux Rd: 4 sec (A) <i>*reduced travel speeds associated with roundabouts</i>
		Accessibility (ADA Facilities, Crossings, etc.)	Baseline	Alternative expands ADA accessibility along the corridor. Qualitative: Connectivity of ADA accessible routes	1.5	3rd	Crossing Dist: 40' No sidewalk	Crossing Dist: 42' Multi-use path provided along one side of the roadway	Crossing Dist: 52' No sidewalk	Crossing Dist: 23' Multi-use path provided along one side of the roadway	
		Effective Transit	Baseline	Alternative expands accessibility to transit facilities and improves transit speed and reliability. Quantitative / Qualitative: Transit travel times along the corridor and transit accessibility to adjacent communities	1.0		N/A	No change in transit facilities or travel time along segment	Reduction in congested transit travel time due to removal of bottleneck with the additional travel lanes.	Reduction in congested transit travel time due to removal of bottleneck with the additional travel lane along southern portion of segment. Potential increases in travel time associated with reduced speed along corridor and travel time through roundabouts.	Reduction in congested transit travel time due to removal of bottleneck with the additional travel lane along southern portion of segment. Potential increases in travel time associated with reduced speed along corridor and travel time through roundabouts.

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2

Alternatives Analysis / Feasibility Screening Process - Evaluation Metrics

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Evaluation Metrics				
							No Build	Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Land Use	Support the City's Town Center Subarea Plan and other growth along the corridor	Town Center Development	Contextual	Alternative supports adjacent land use development in line with the City's Town Center Subarea Plan. Quantitative: Longest distance between pedestrian crossings Qualitative: Infrastructure to promote mixed-use development and pedestrian connectivity	1.0		N/A (segment not along Town Center)	N/A (segment not within Town Center)	N/A (segment not within Town Center)	N/A (segment not within Town Center)	N/A (segment not within Town Center)
		Effective Parallel Corridors	Contextual	Alternative improves intersection locations connecting to the City's planned Collector roadways, as part of the Parallel Road Network. Qualitative: Connectivity to the Parallel Roadway Network	1.0		N/A (segment not along Parallel Corridor network)	N/A (segment not along Parallel Corridor network)	N/A (segment not along Parallel Corridor network)	N/A (segment not along Parallel Corridor network)	N/A (segment not along Parallel Corridor network)
		Local Business Access / Integration	Contextual	Alternative provides safe vehicular access to businesses and residences along the corridor. Qualitative: Accessibility to developments along the corridor	2.0	2nd	N/A	No changes to access at 102 Ave (full access with no left-turn pocket); reduces minor-street approach delay	Left turn access restriction at 102nd Ave (coupled with U-turn access at Dechaux Rd); reduces minor-street approach delay but requires additional travel distance for left-turns at 102nd Ave	SB left acceleration/deceleration lane provided at 102nd Ave (full-access); reduces minor-street approach delay	SB left acceleration/deceleration lane provided at 102nd Ave (full-access); reduces minor-street approach delay
		Corridor Aesthetics	Contextual	Alternative provides landscaping, lighting, and / or placemaking improvements to the corridor. Qualitative: Landscaping / lighting improvements to the corridor	1.0		N/A	Street and pedestrian lighting improvements along corridor; landscaping improvements along east side of roadway adjacent to multi-use path	Street lighting improvements along corridor; minimal landscaping improvements no pathway on east side (minimize slope intrusion)	Street and pedestrian lighting improvements along corridor; landscaping improvements along east side of roadway adjacent to multi-use path	Street and pedestrian lighting improvements along corridor; landscaping improvements along east side of roadway adjacent to multi-use path

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2

Alternatives Analysis / Feasibility Screening Process - Evaluation Metrics

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Evaluation Metrics				
							No Build	Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Community Involvement / Community Benefit	Collaborate with WSDOT, Pierce Transit, other stakeholders, and the public to confirm and address future needs	Community Support / Acceptance (survey results)	Contextual	Alternative receives widespread support from the community. Quantitative: Survey results	2.0		N/A	28% First Choice	63% First Choice	Includes multi-use path along east side roadway (aligns with Option A).	Includes multi-use path along east side roadway (aligns with Option A).
		Regional Mobility / Continuity / Resiliency	Contextual	Alternative aligns with stakeholder "complete street" and multimodal priorities. Qualitative: Compatible with relevant WSDOT and Pierce Transit design guidelines and corridor improvement plans	1.0		No multimodal infrastructure along corridor	Alternative provides multimodal infrastructure along the entire segment.	Alternative does not expand multimodal facilities along the corridor	Alternative provides multimodal infrastructure along the entire segment.	Alternative provides multimodal infrastructure along the entire segment.
		Constructability / Extendibility	Contextual	Alternative provides a cost-effective solution to implementing project improvements along the corridor. Quantitative: Improvement costs	1.5		N/A	Capital Costs: Widen corridor to one side (east); construct cut retaining walls; construct non-motorized path; construct pedestrian/bicycle-only bridge over UPRR	Capital Costs: Widen corridor from 3-lanes to 4-lanes on both sides; construct cut and fill retaining walls; construct 2-lane bridge over UPRR	Capital Costs: Widen corridor from 3-lanes to 4-lanes on both sides; construct cut and fill retaining walls; construct 2-lane bridge and pedestrian/bicycle only bridge over UPRR	Capital Costs: Widen corridor to one side (east); construct cut retaining walls; construct non-motorized path; construct 2-lane bridge (to allow for future additional southbound lane) and pedestrian/bicycle only bridge over UPRR
		Funding Availability / Grant Applicability	Contextual	Alternative contains features that will allow the project to apply for local / regional / national funding. Qualitative: Improvement alignment with funding priorities	1.0		N/A	Grant alignment features: Active Transportation (ped/bike facilities) Community Connectivity (access between north and south of hill)	Grant alignment features: Safety (access restriction)	Grant alignment features: Active Transportation (ped/bike facilities) Safety (roundabout installation and left turn lane) Community Connectivity (access between north and south of hill)	Grant alignment features: Active Transportation (ped/bike facilities) Safety (roundabout installation and left turn lane) Community Connectivity (access between north and south of hill)
Natural Environment	Minimize impacts to the environment	Impacts on Natural Environment	Contextual	Alternative minimizes impacts to the areas adjacent to the roadway corridor, including steep slopes and other sensitive / critical areas. Quantitative: Area of Influence / Project Footprint	1.5		N/A	Road+Sidewalk width = 50' Intrusion proposed into adjacent slope on one side of the corridor (east side)	Road+Sidewalk width = 52' Intrusion proposed into adjacent slope on both sides of the corridor to minimize the degree of intrusion to the existing slopes	Road+Sidewalk width = 61' Substantial intrusion into adjacent slopes (both sides)	Road+Sidewalk width = 50' Intrusion proposed into adjacent slope on one side of the corridor (east side)
		Stormwater Management	Contextual	Alternative improves conditions for surface water runoff, including detention and water quality treatment infrastructure. Qualitative: Addition of pollution generating impervious surfaces (PGIS) and/or pervious surfaces	1.0		No stormwater facilities along the corridor	Alternative primarily involves addition of non-pollution generating impervious surfaces (NPGIS) with walls, wide path, and pedestrian bridge over UPRR with widening only on one side of existing corridor (east side). Stormwater facilities may involve having an infiltration trench under the walkway for the new NPGIS.	Alternative involves addition of pollution generating impervious surfaces (PGIS) with the addition of a new vehicular lane along the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor.	Alternative involves addition of pollution generating impervious surfaces (PGIS) with the addition of a new vehicular lane along the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor.	Alternative involves addition of pollution generating impervious surfaces (PGIS) with the addition of a new vehicular lane along the southern portion of the corridor. Stormwater facilities are required to address the new PGIS and may involve having detention and water quality facilities that are underground and/or on property adjacent to the corridor.

Appendix F: Level 2 Screening: Alternative Evaluation Scoring Results

Appendix F: Level 2 Screening: Alternative Evaluation Scoring Results: Segment 1

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1
Alternatives Analysis / Feasibility Screening Process - Scoring Results

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score			
							Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Safety		Roadway (vehicle) Safety	Baseline	Alternative reduces collisions along the corridor. Quantitative: Expected collision reduction along the corridor	3.0					
		Pedestrian Comfort / Safety	Baseline	Alternative improves pedestrian safety and comfort along the corridor. Quantitative: Pedestrian Level of Traffic Stress (PLTS) along the corridor	1.0					
		Bicycle Comfort / Safety	Baseline	Alternative improves bicycle safety and comfort along the corridor. Quantitative: Bicycle Level of Traffic Stress (BLTS) along the corridor	1.0					
Mobility	Implement a systematic strategy that addresses multimodal mobility, access, and safety needs along the corridor	Intersection Operations	Baseline	Alternative reduces vehicular delay at intersections and along the corridor. Quantitative: Delay / LOS conditions at the study intersections	2.0	1st				
		Accessibility (ADA Facilities, Crossings, etc.)	Baseline	Alternative expands ADA accessibility along the corridor. Qualitative: Connectivity of ADA accessible routes	1.5	3rd				
		Effective Transit	Baseline	Alternative expands accessibility to transit facilities and improves transit speed and reliability. Quantitative / Qualitative: Transit travel times along the corridor and transit accessibility to adjacent communities	1.0					

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1
Alternatives Analysis / Feasibility Screening Process - Scoring Results

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score			
							Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Land Use	Support the City's Town Center Subarea Plan and other growth along the corridor	Town Center Development	Contextual	Alternative supports adjacent land use development in line with the City's Town Center Subarea Plan. Quantitative: Longest distance between pedestrian crossings Qualitative: Infrastructure to promote mixed-use development and pedestrian connectivity	1.0					
		Effective Parallel Corridors	Contextual	Alternative improves intersection locations connecting to the City's planned Collector roadways, as part of the Parallel Road Network. Qualitative: Connectivity to the Parallel Roadway Network	1.0					
		Local Business Access / Integration	Contextual	Alternative provides safe vehicular access to businesses and residences along the corridor. Qualitative: Accessibility to developments along the corridor	2.0	2nd				
		Corridor Aesthetics	Contextual	Alternative provides landscaping, lighting, and / or placemaking improvements to the corridor. Qualitative: Landscaping / lighting improvements to the corridor	1.0					

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 1
Alternatives Analysis / Feasibility Screening Process - Scoring Results

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score			
							Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Community Involvement / Community Benefit	Collaborate with WSDOT, Pierce Transit, other stakeholders, and the public to confirm and address future needs	Community Support / Acceptance (survey results)	Contextual	Alternative receives widespread support from the community. Quantitative: Survey results	2.0					
		Regional Mobility / Continuity / Resiliency	Contextual	Alternative aligns with stakeholder "complete street" and multimodal priorities. Qualitative: Compatible with relevant WSDOT and Pierce Transit design guidelines and corridor improvement plans	1.0					
		Constructability / Extendibility	Contextual	Alternative provides a cost-effective solution to implementing project improvements along the corridor. Quantitative: Improvement costs	1.5					
		Funding Availability / Grant Applicability	Contextual	Alternative contains features that will allow the project to apply for local / regional / national funding. Qualitative: Improvement alignment with funding priorities	1.0					
Natural Environment	Minimize impacts to the environment	Impacts on Natural Environment	Contextual	Alternative minimizes impacts to the areas adjacent to the roadway corridor, including steep slopes and other sensitive / critical areas. Quantitative: Area of Influence / Project Footprint	1.5					
		Stormwater Management	Contextual	Alternative improves conditions for surface water runoff, including detention and water quality treatment infrastructure. Qualitative: Addition of pollution generating impervious surfaces (PGIS) and/or pervious surfaces	1.0					
Total Score (Raw)							19.0	22.0	24.0	26.0
Total Score (Weighted)							25.5	32.0	33.5	36.5

Appendix F: Level 2 Screening: Alternative Evaluation Scoring Results: Segment 2

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2
Alternatives Analysis / Feasibility Screening Process - Scoring Results

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score			
							Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Safety		Roadway (vehicle) Safety	Baseline	Alternative reduces collisions along the corridor. Quantitative: Expected collision reduction along the corridor	3.0					
		Pedestrian Comfort / Safety	Baseline	Alternative improves pedestrian safety and comfort along the corridor. Quantitative: Pedestrian Level of Traffic Stress (PLTS) along the corridor	1.0					
		Bicycle Comfort / Safety	Baseline	Alternative improves bicycle safety and comfort along the corridor. Quantitative: Bicycle Level of Traffic Stress (BLTS) along the corridor	1.0					
Mobility	Implement a systematic strategy that addresses multimodal mobility, access, and safety needs along the corridor	Intersection Operations	Baseline	Alternative reduces vehicular delay at intersections and along the corridor. Quantitative: Delay / LOS conditions at the study intersections	2.0	1st				
		Accessibility (ADA Facilities, Crossings, etc.)	Baseline	Alternative expands ADA accessibility along the corridor. Qualitative: Connectivity of ADA accessible routes	1.5	3rd				
		Effective Transit	Baseline	Alternative expands accessibility to transit facilities and improves transit speed and reliability. Quantitative / Qualitative: Transit travel times along the corridor and transit accessibility to adjacent communities	1.0					

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2
Alternatives Analysis / Feasibility Screening Process - Scoring Results

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score			
							Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Land Use	Support the City's Town Center Subarea Plan and other growth along the corridor	Town Center Development	Contextual	Alternative supports adjacent land use development in line with the City's Town Center Subarea Plan. Quantitative: Longest distance between pedestrian crossings Qualitative: Infrastructure to promote mixed-use development and pedestrian connectivity	1.0		N/A	N/A	N/A	N/A
		Effective Parallel Corridors	Contextual	Alternative improves intersection locations connecting to the City's planned Collector roadways, as part of the Parallel Road Network. Qualitative: Connectivity to the Parallel Roadway Network	1.0		N/A	N/A	N/A	N/A
		Local Business Access / Integration	Contextual	Alternative provides safe vehicular access to businesses and residences along the corridor. Qualitative: Accessibility to developments along the corridor	2.0	2nd	●	◐	●	●
		Corridor Aesthetics	Contextual	Alternative provides landscaping, lighting, and / or placemaking improvements to the corridor. Qualitative: Landscaping / lighting improvements to the corridor	1.0		●	◐	●	●

City of Edgewood - Meridian Avenue Corridor Study
SEGMENT 2
Alternatives Analysis / Feasibility Screening Process - Scoring Results

Goal	Description	Criteria	Needs Category	Performance Metrics	Weighted Factor	Community Priorities	Score			
							Option A (Alternative A)	Option B (Alternative B1)	Option C (Alternative C)	Final Recommendation
Community Involvement / Community Benefit	Collaborate with WSDOT, Pierce Transit, other stakeholders, and the public to confirm and address future needs	Community Support / Acceptance (survey results)	Contextual	Alternative receives widespread support from the community. Quantitative: Survey results	2.0					
		Regional Mobility / Continuity / Resiliency	Contextual	Alternative aligns with stakeholder "complete street" and multimodal priorities. Qualitative: Compatible with relevant WSDOT and Pierce Transit design guidelines and corridor improvement plans	1.0					
		Constructability / Extensibility	Contextual	Alternative provides a cost-effective solution to implementing project improvements along the corridor. Quantitative: Improvement costs	1.5					
		Funding Availability / Grant Applicability	Contextual	Alternative contains features that will allow the project to apply for local / regional / national funding. Qualitative: Improvement alignment with funding priorities	1.0					
Natural Environment	Minimize impacts to the environment	Impacts on Natural Environment	Contextual	Alternative minimizes impacts to the areas adjacent to the roadway corridor, including steep slopes and other sensitive / critical areas. Quantitative: Area of Influence / Project Footprint	1.5					
		Stormwater Management	Contextual	Alternative improves conditions for surface water runoff, including detention and water quality treatment infrastructure. Qualitative: Addition of pollution generating impervious surfaces (PGIS) and/or pervious surfaces	1.0					

Appendix F: Level 2 Screening: Alternative Cost Estimates

Appendix F: Level 2 Screening: Alternative Cost Estimates: Alternative A

City of Edgewood

Planning Level Cost Estimate



Project Description:	Meridian Corridor Study (SR 161)	Date: 3/8/2024
Design Concept:	Option A (Alternative A) All construction phases summary	Prepared By: KAH

	Option A Phase 1	Option A Phase 2	Option A Phase 3	Option A Phase 4	Option A Phase 5	Option A FULL PROJECT	
<i>From:</i>	24th	S. of 32nd	S. of 36th	S. of 102nd	S. of Dechaux Ext.	24th	
<i>To:</i>	S. of 32nd	S. of 36th	S. of 102nd	S. of Dechaux Ext.	Spencer	Spencer	
<i>Station:</i>	197+00	164+00	150+00	126+00	112+00	197+00	
<i>Station:</i>	164+00	150+00	126+00	112+00	86+00	86+00	
<i>Feet:</i>	3,300	1,400	2,400	1,400	2,600	11,100	
<i>Miles:</i>	0.63	0.27	0.45	0.27	0.49	2.10	
CONSTRUCTION							
Preparation	\$ 1,045,680	\$ 539,980	\$ 1,011,480	\$ 254,860	\$ 1,188,300	\$ 4,040,300	12%
Grading	\$ 1,059,040	\$ 248,825	\$ 364,200	\$ 212,510	\$ 862,095	\$ 2,746,670	8%
Storm Drainage	\$ 1,347,600	\$ 720,800	\$ 696,800	\$ 443,300	\$ 746,400	\$ 3,954,900	12%
Paving	\$ 1,201,300	\$ 723,850	\$ 262,075	\$ 156,225	\$ 282,375	\$ 2,625,825	8%
Concrete	\$ 532,955	\$ 247,840	\$ 251,710	\$ 149,425	\$ 284,280	\$ 1,466,210	4%
Structures	\$ 216,505	\$ 162,740	\$ 5,302,715	\$ -	\$ 5,940,915	\$ 11,622,875	35%
TESC and Landscaping	\$ 286,060	\$ 206,360	\$ 250,425	\$ 113,160	\$ 275,925	\$ 1,131,930	3%
Traffic	\$ 2,305,760	\$ 1,219,900	\$ 492,000	\$ 505,430	\$ 1,106,370	\$ 5,629,460	17%
Other Items	\$ 65,000	\$ 53,500	\$ 53,500	\$ 53,500	\$ 53,500	\$ 279,000	1%
CONSTRUCTION SUBTOTAL	\$ 8,059,900	\$ 4,123,795	\$ 8,684,905	\$ 1,888,410	\$ 10,740,160	\$ 33,497,170	
Contingency	\$ 3,223,960	\$ 1,649,520	\$ 3,473,970	\$ 755,370	\$ 4,296,070	\$ 13,398,890	40%
CONSTRUCTION TOTAL	\$ 11,283,860	\$ 5,773,315	\$ 12,158,875	\$ 2,643,780	\$ 15,036,230	\$ 46,896,060	
ENGINEERING AND ADMINISTRATION							
Design Engineering	\$ 1,692,580	\$ 866,000	\$ 1,823,840	\$ 396,570	\$ 2,255,440	\$ 7,034,430	15%
Construction Engineering	\$ 1,692,580	\$ 866,000	\$ 1,823,840	\$ 396,570	\$ 2,255,440	\$ 7,034,430	15%
City Engineering and Administration	\$ 564,200	\$ 288,670	\$ 607,950	\$ 132,190	\$ 751,820	\$ 2,344,830	5%
ENGR. & ADMIN. TOTAL	\$ 3,949,360	\$ 2,020,670	\$ 4,255,630	\$ 925,330	\$ 5,262,700	\$ 16,413,690	
ENVIRONMENTAL ENGINEERING							
<i>Environmental Permits, Compliance</i>	\$ 338,520	\$ 173,210	\$ 364,770	\$ 79,320	\$ 451,100	\$ 1,406,920	3%
RIGHT OF WAY							
<i>Acquisitions, Easements, etc.</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL ESTIMATED COST	\$ 15,571,740	\$ 7,967,195	\$ 16,779,275	\$ 3,648,430	\$ 20,750,030	\$ 64,716,670	
FUTURE ESTIMATED COST							
<i>Escalation factor not applied in this estimate</i>	\$ 15,571,740	\$ 7,967,195	\$ 16,779,275	\$ 3,648,430	\$ 20,750,030	\$ 64,716,670	

Note: The above opinion of cost is a planning level estimate only. It is based on available information and concept plans, not on the results of a detailed engineering study, and is supplied as a budgeting guide only.

Appendix F: Level 2 Screening: Alternative Cost Estimates: Alternative B

City of Edgewood

Planning Level Cost Estimate



Project Description:	Meridian Corridor Study (SR 161)	Date: 3/8/2024
Design Concept:	Option B (Alternative B1) All construction phases summary	Prepared By: KAH

	Option B Phase 1	Option B Phase 2	Option B Phase 3	Option B Phase 4	Option B Phase 5	Option B FULL PROJECT	
<i>From:</i>	24th	S. of 32nd	S. of 36th	S. of 102nd	S. of Dechaux Ext.	24th	
<i>To:</i>	S. of 32nd	S. of 36th	S. of 102nd	S. of Dechaux Ext.	Spencer	Spencer	
<i>Station:</i>	197+00	164+00	150+00	126+00	112+00	197+00	
<i>Station:</i>	164+00	150+00	126+00	112+00	86+00	86+00	
<i>Feet:</i>	3,300	1,400	2,400	1,400	2,600	11,100	
<i>Miles:</i>	0.63	0.27	0.45	0.27	0.49	2.10	
CONSTRUCTION							
Preparation	\$ 1,061,080	\$ 556,280	\$ 1,167,480	\$ 577,860	\$ 1,770,200	\$ 5,132,900	12%
Grading	\$ 1,031,285	\$ 248,825	\$ 489,035	\$ 285,355	\$ 2,265,225	\$ 4,319,725	10%
Storm Drainage	\$ 1,347,600	\$ 720,800	\$ 1,114,800	\$ 703,800	\$ 1,067,200	\$ 4,954,200	11%
Paving	\$ 806,900	\$ 599,150	\$ 514,875	\$ 303,875	\$ 762,625	\$ 2,987,425	7%
Concrete	\$ 730,400	\$ 261,980	\$ 13,400	\$ 2,700	\$ 30,700	\$ 1,039,180	2%
Structures	\$ 216,505	\$ 437,275	\$ 5,964,470	\$ 2,364,415	\$ 8,872,770	\$ 17,855,435	41%
TESC and Landscaping	\$ 633,760	\$ 150,790	\$ 183,360	\$ 103,660	\$ 253,580	\$ 1,325,150	3%
Traffic	\$ 2,445,510	\$ 1,227,950	\$ 647,750	\$ 574,930	\$ 1,118,730	\$ 6,014,870	14%
Other Items	\$ 65,000	\$ 53,500	\$ 53,500	\$ 53,500	\$ 53,500	\$ 279,000	1%
CONSTRUCTION SUBTOTAL	\$ 8,338,040	\$ 4,256,550	\$ 10,148,670	\$ 4,970,095	\$ 16,194,530	\$ 43,907,885	
Contingency	\$ 3,335,220	\$ 1,702,620	\$ 4,059,470	\$ 1,988,040	\$ 6,477,820	\$ 17,563,170	40%
CONSTRUCTION TOTAL	\$ 11,673,260	\$ 5,959,170	\$ 14,208,140	\$ 6,958,135	\$ 22,672,350	\$ 61,471,055	
ENGINEERING AND ADMINISTRATION							
Design Engineering	\$ 1,750,990	\$ 893,880	\$ 2,131,230	\$ 1,043,730	\$ 3,400,860	\$ 9,220,690	15%
Construction Engineering	\$ 1,750,990	\$ 893,880	\$ 2,131,230	\$ 1,043,730	\$ 3,400,860	\$ 9,220,690	15%
City Engineering and Administration	\$ 583,670	\$ 297,960	\$ 710,410	\$ 347,910	\$ 1,133,620	\$ 3,073,570	5%
ENGR. & ADMIN. TOTAL	\$ 4,085,650	\$ 2,085,720	\$ 4,972,870	\$ 2,435,370	\$ 7,935,340	\$ 21,514,950	
ENVIRONMENTAL ENGINEERING							
<i>Environmental Permits, Compliance</i>	\$ 350,210	\$ 178,790	\$ 426,260	\$ 208,760	\$ 680,180	\$ 1,844,200	3%
RIGHT OF WAY							
<i>Acquisitions, Easements, etc.</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL ESTIMATED COST	\$ 16,109,120	\$ 8,223,680	\$ 19,607,270	\$ 9,602,265	\$ 31,287,870	\$ 84,830,205	
FUTURE ESTIMATED COST							
<i>Escalation factor not applied in this estimate</i>	\$ 16,109,120	\$ 8,223,680	\$ 19,607,270	\$ 9,602,265	\$ 31,287,870	\$ 84,830,205	

Note: The above opinion of cost is a planning level estimate only. It is based on available information and concept plans, not on the results of a detailed engineering study, and is supplied as a budgeting guide only.

Appendix F: Level 2 Screening: Alternative Cost Estimates: Alternative C

City of Edgewood

Planning Level Cost Estimate



Project Description:	Meridian Corridor Study (SR 161)	Date: 3/8/2024
Design Concept:	Option C (Alternative C) All construction phases summary	Prepared By: KAH

	Option C Phase 1	Option C Phase 2	Option C Phase 3	Option C Phase 4	Option C Phase 5	Option C FULL PROJECT	
<i>From:</i>	24th	S. of 32nd	S. of 36th	S. of 102nd	S. of Dechaux Ext.	24th	
<i>To:</i>	S. of 32nd	S. of 36th	S. of 102nd	S. of Dechaux Ext.	Spencer	Spencer	
<i>Station:</i>	197+00	164+00	150+00	126+00	112+00	197+00	
<i>Station:</i>	164+00	150+00	126+00	112+00	86+00	86+00	
<i>Feet:</i>	3,300	1,400	2,400	1,400	2,600	11,100	
<i>Miles:</i>	0.63	0.27	0.45	0.27	0.49	2.10	
CONSTRUCTION							
Preparation	\$ 1,168,980	\$ 754,440	\$ 1,373,180	\$ 912,760	\$ 3,558,000	\$ 7,767,360	11%
Grading	\$ 1,059,040	\$ 248,825	\$ 524,895	\$ 306,255	\$ 2,753,000	\$ 4,892,015	7%
Storm Drainage	\$ 1,347,600	\$ 720,800	\$ 1,314,800	\$ 903,800	\$ 1,177,600	\$ 5,464,600	8%
Paving	\$ 1,011,350	\$ 723,850	\$ 522,125	\$ 308,225	\$ 762,625	\$ 3,328,175	5%
Concrete	\$ 2,032,955	\$ 2,047,840	\$ 251,710	\$ 2,166,925	\$ 1,784,280	\$ 8,283,710	12%
Structures	\$ 216,505	\$ 437,275	\$ 6,846,660	\$ 2,556,630	\$ 21,759,610	\$ 31,816,680	46%
TESC and Landscaping	\$ 411,000	\$ 217,315	\$ 292,625	\$ 195,560	\$ 572,125	\$ 1,688,625	2%
Traffic	\$ 1,972,330	\$ 1,021,320	\$ 688,520	\$ 704,620	\$ 686,920	\$ 5,073,710	7%
Other Items	\$ 65,000	\$ 54,000	\$ 54,000	\$ 54,000	\$ 54,000	\$ 281,000	0%
CONSTRUCTION SUBTOTAL	\$ 9,284,760	\$ 6,225,665	\$ 11,868,515	\$ 8,108,775	\$ 33,108,160	\$ 68,595,875	
Contingency	\$ 3,713,910	\$ 2,490,270	\$ 4,747,410	\$ 3,243,510	\$ 13,243,270	\$ 27,438,370	40%
CONSTRUCTION TOTAL	\$ 12,998,670	\$ 8,715,935	\$ 16,615,925	\$ 11,352,285	\$ 46,351,430	\$ 96,034,245	
ENGINEERING AND ADMINISTRATION							
Design Engineering	\$ 1,949,810	\$ 1,307,400	\$ 2,492,390	\$ 1,702,850	\$ 6,952,720	\$ 14,405,170	15%
Construction Engineering	\$ 1,949,810	\$ 1,307,400	\$ 2,492,390	\$ 1,702,850	\$ 6,952,720	\$ 14,405,170	15%
City Engineering and Administration	\$ 649,940	\$ 435,800	\$ 830,800	\$ 567,620	\$ 2,317,580	\$ 4,801,740	5%
ENGR. & ADMIN. TOTAL	\$ 4,549,560	\$ 3,050,600	\$ 5,815,580	\$ 3,973,320	\$ 16,223,020	\$ 33,612,080	
ENVIRONMENTAL ENGINEERING							
<i>Environmental Permits, Compliance</i>	\$ 389,970	\$ 261,480	\$ 498,480	\$ 340,580	\$ 1,390,550	\$ 2,881,060	3%
RIGHT OF WAY							
<i>Acquisitions, Easements, etc.</i>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL ESTIMATED COST	\$ 17,938,200	\$ 12,028,015	\$ 22,929,985	\$ 15,666,185	\$ 63,965,000	\$ 132,527,385	
FUTURE ESTIMATED COST							
<i>Escalation factor not applied in this estimate</i>	\$ 17,938,200	\$ 12,028,015	\$ 22,929,985	\$ 15,666,185	\$ 63,965,000	\$ 132,527,385	

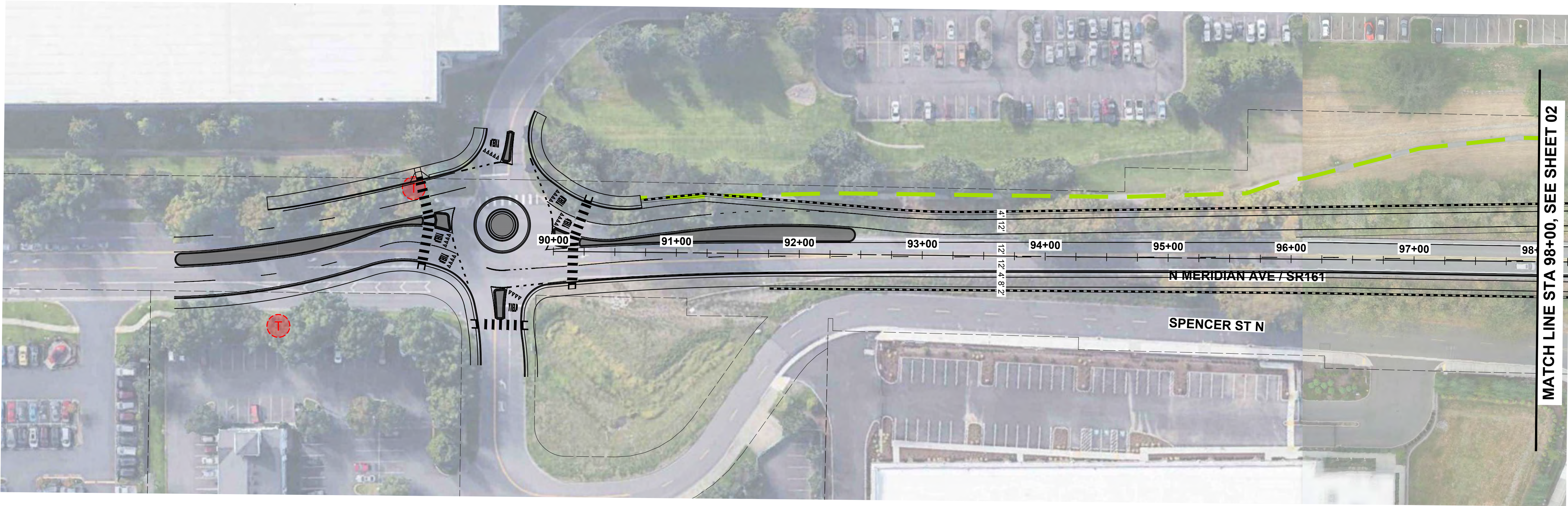
Note: The above opinion of cost is a planning level estimate only. It is based on available information and concept plans, not on the results of a detailed engineering study, and is supplied as a budgeting guide only.

Appendix G: Final Recommendation Design Concept & Cost Estimate

Appendix G: Design Concept

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SEC. 15, T 20 N, R 04 E, W.M.



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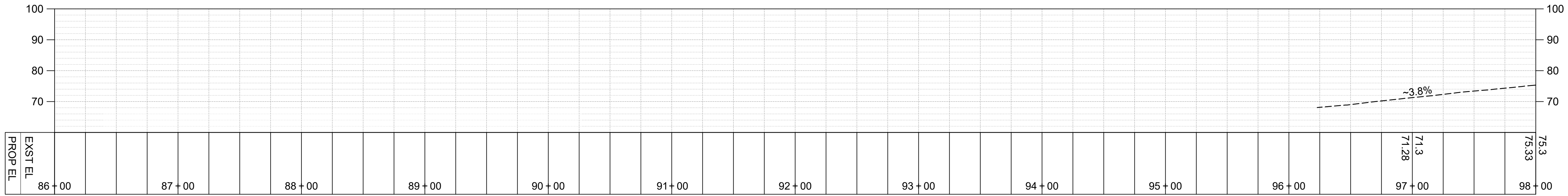
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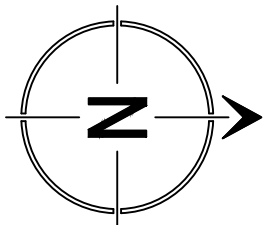
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- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY

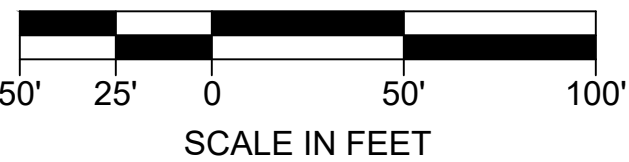


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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NO.	BY	DATE	REVISION

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Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23

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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION A2
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP01
SHEET	1
OF	11

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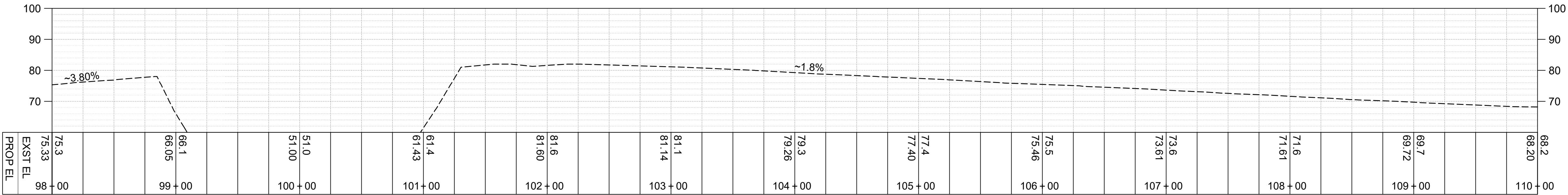
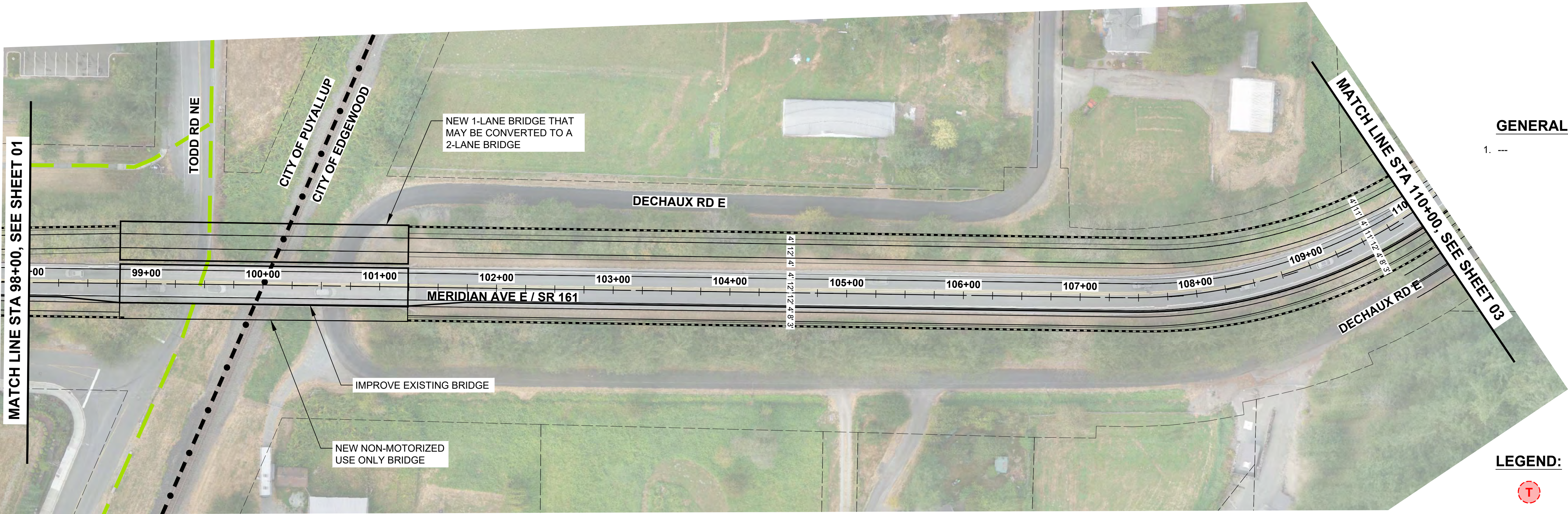
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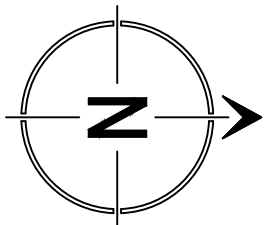
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-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



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Designed	KAH 10/23
Reviewed	KAH 10/23
Approved	VLS 10/23
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION A2
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP02
SHEET	2
OF	11

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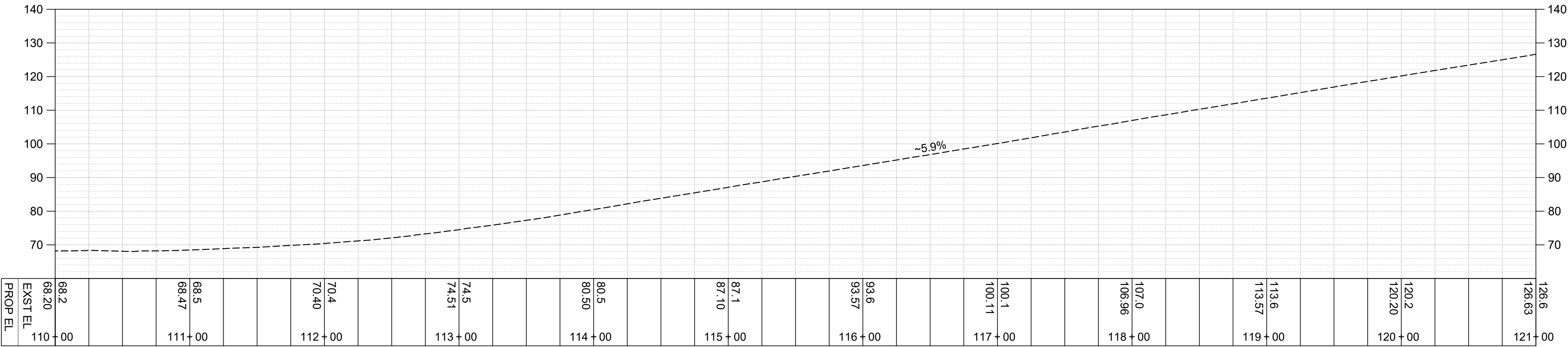
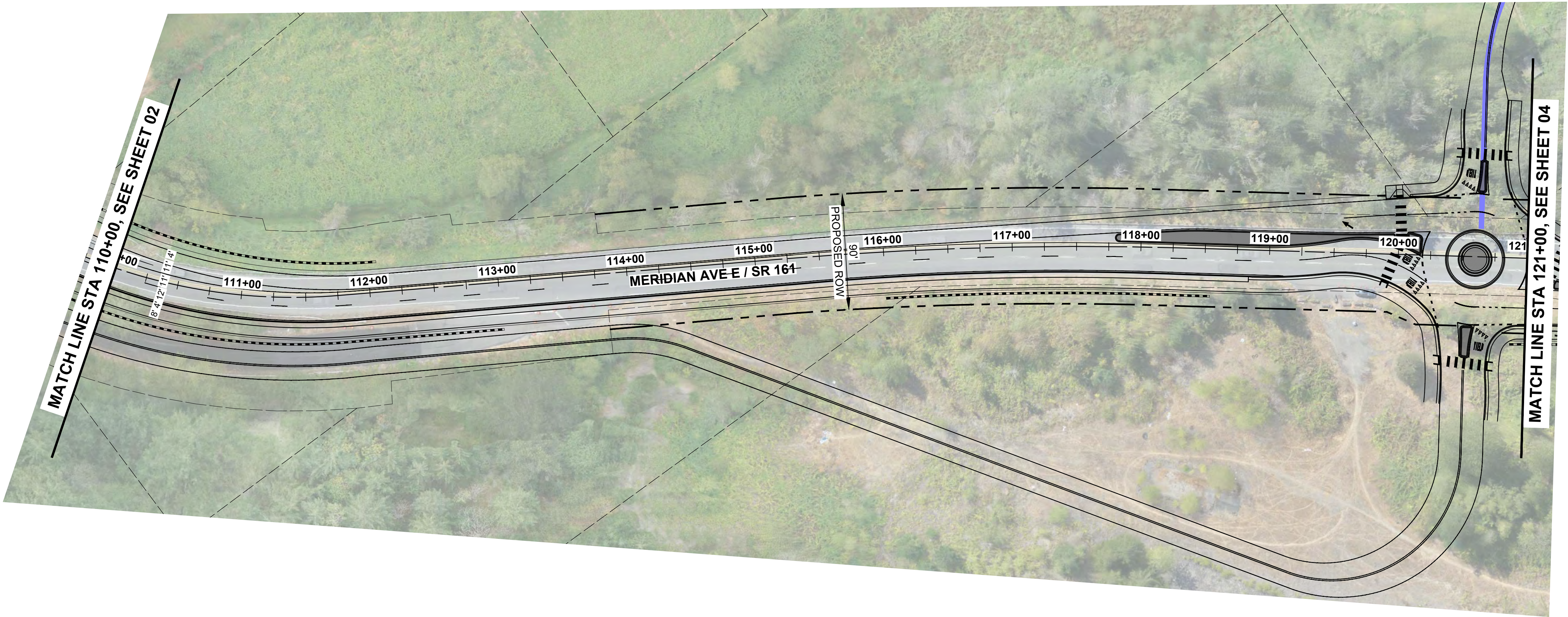
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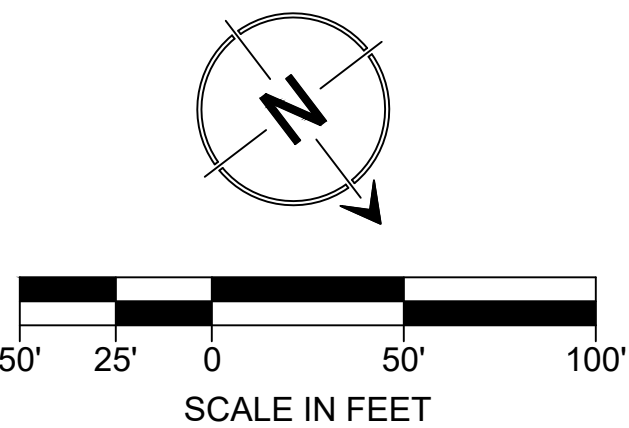
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



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Reviewed	KAH	10/23
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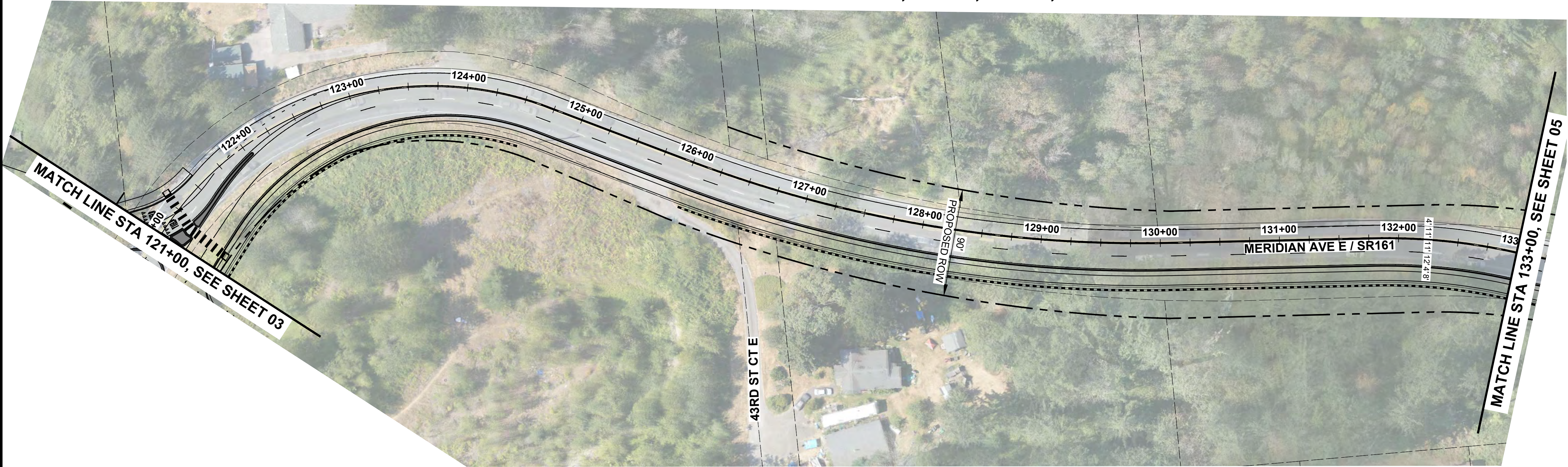
**CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS**

**OPTION A2
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)**

PROJECT NO.
221033
CONTRACT NO.
-
DRAWING NO.
RP03
SHEET 3
OF 11

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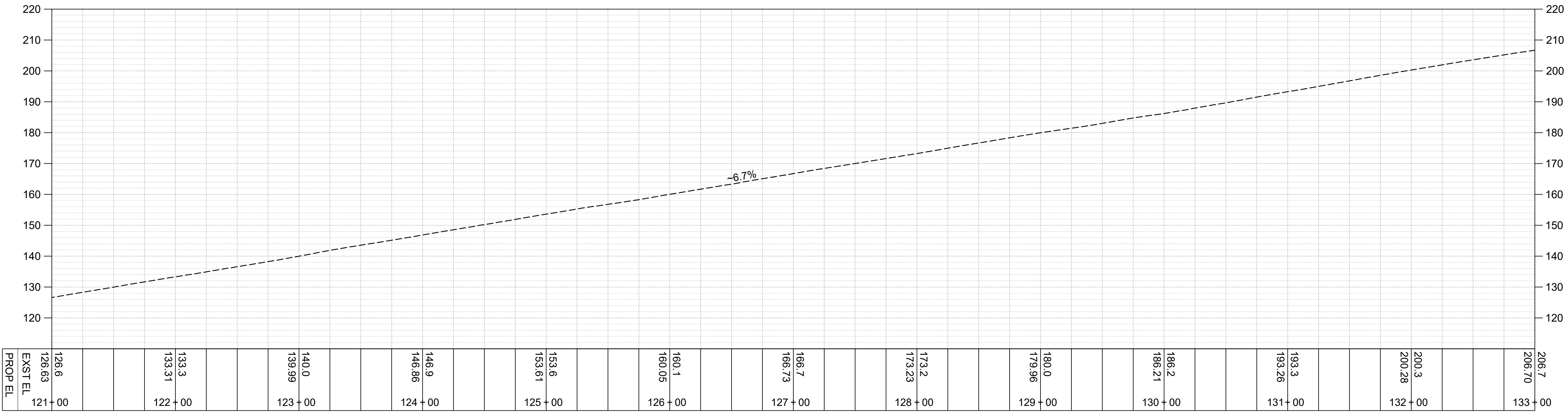
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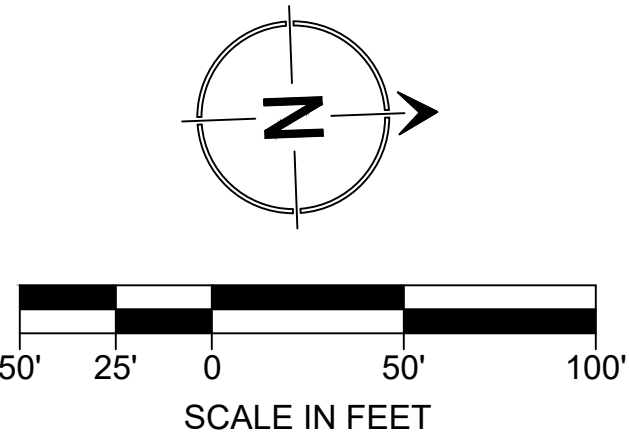
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-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



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Approved	VLS	10/23
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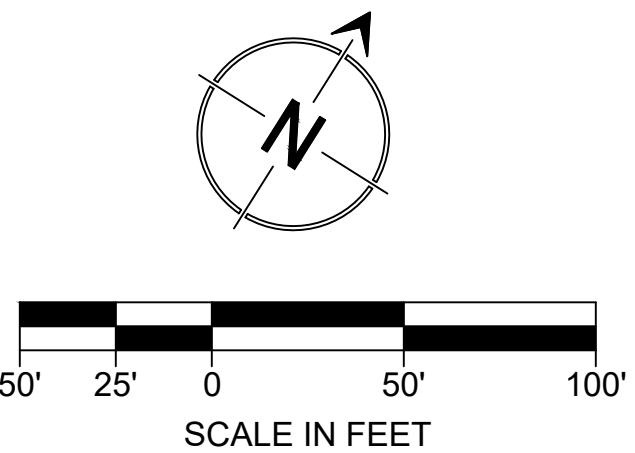


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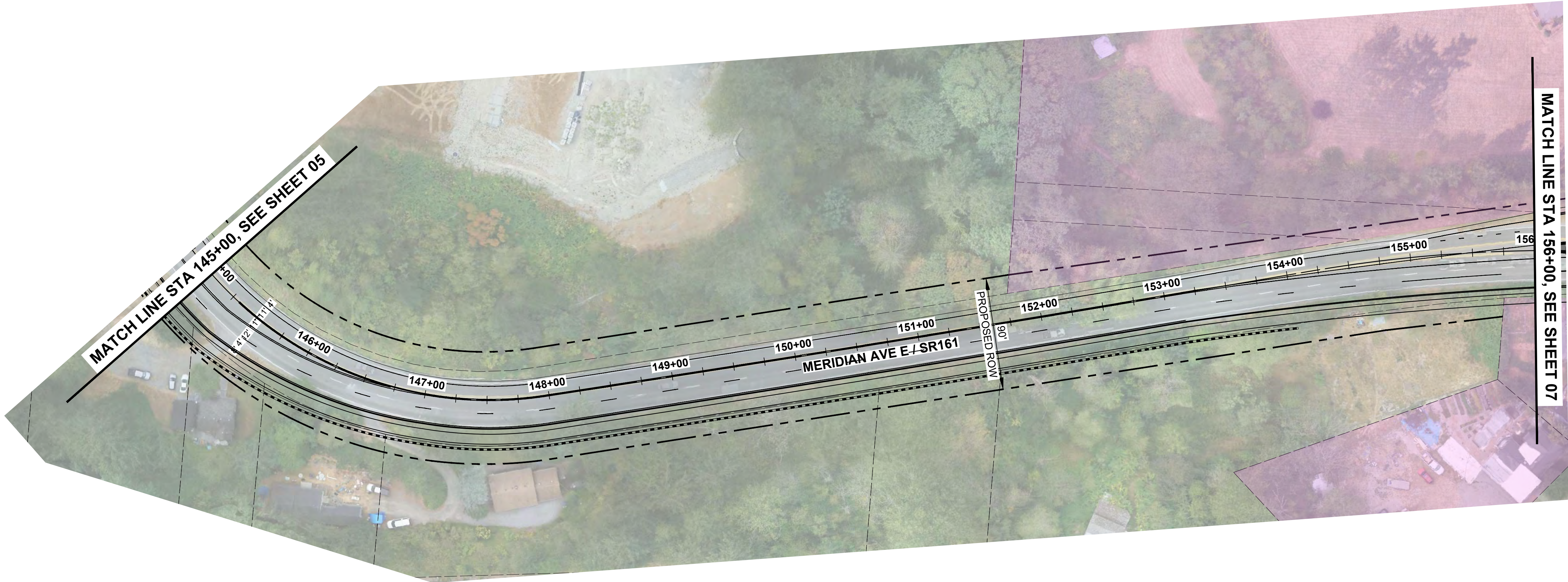
CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION A2
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP04
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OF	11



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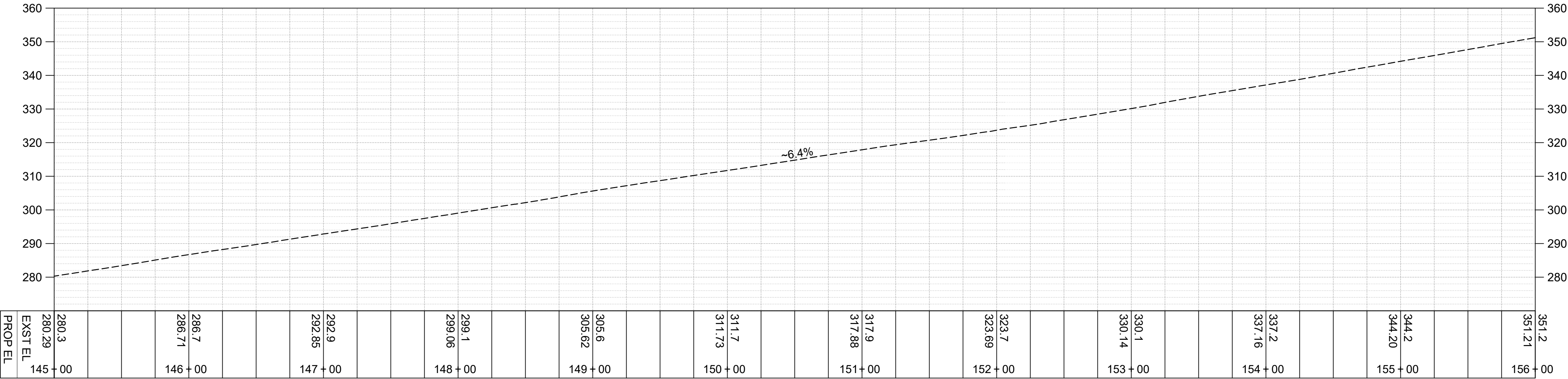
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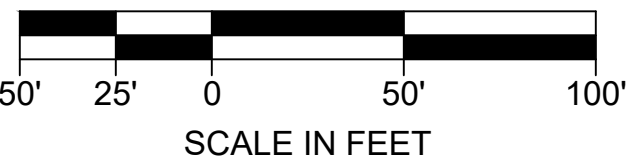
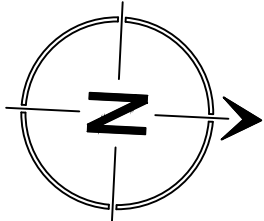
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-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE
SCALE: 1"=50' HORIZ., 1"=20' VERT.



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Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		



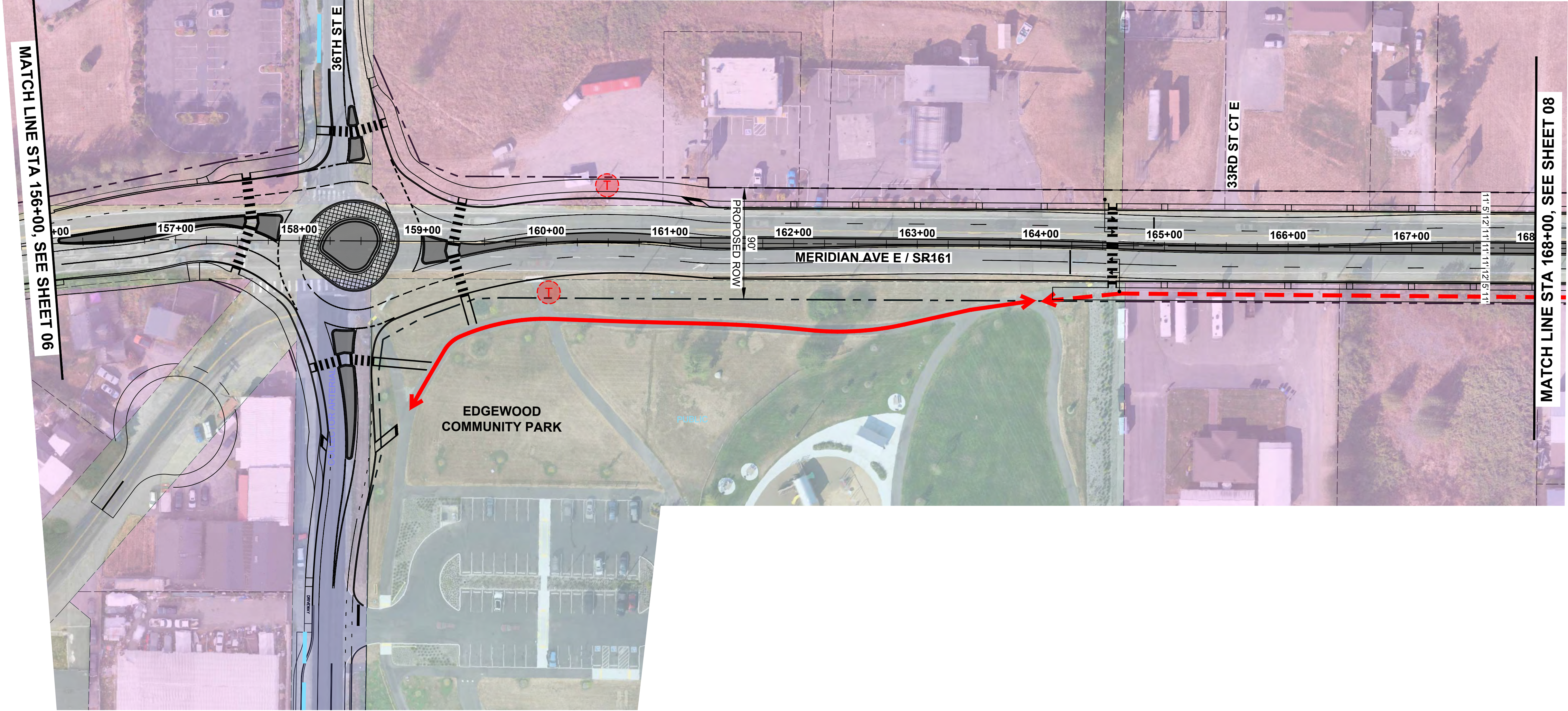
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**CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS**

**OPTION A2
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)**

PROJECT NO. 221033
CONTRACT NO. -
DRAWING NO. RP06
SHEET 1 OF 11

SEC. 15, T 20 N, R 04 E, W.M.



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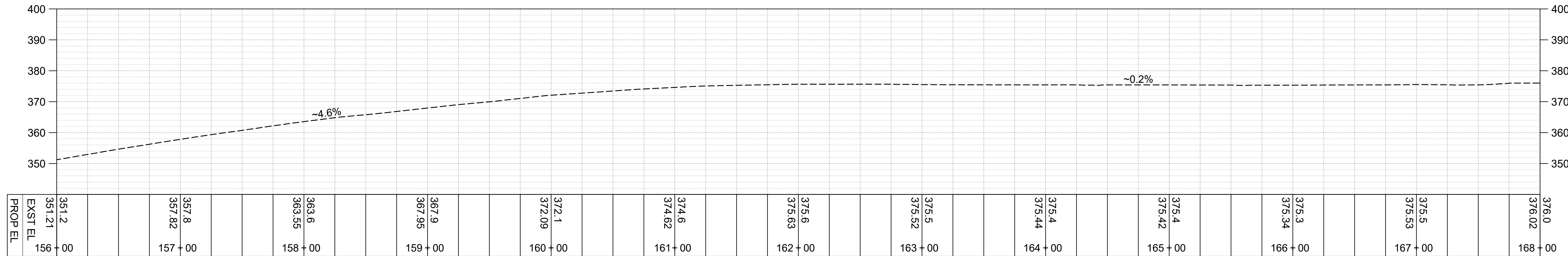
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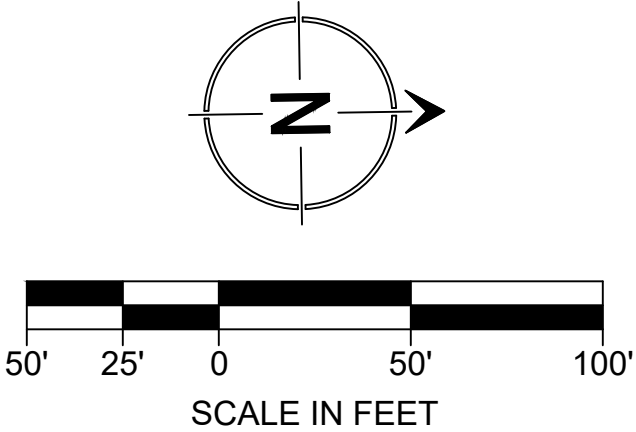
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- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

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Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B6
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP07

SHEET 7
OF 11

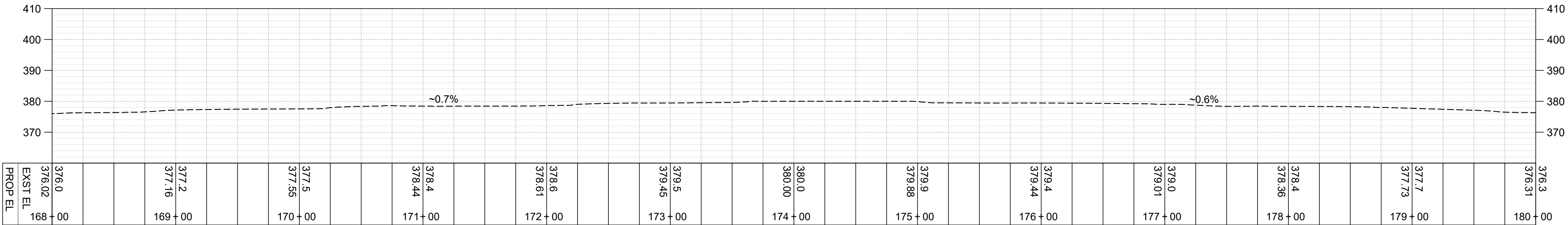
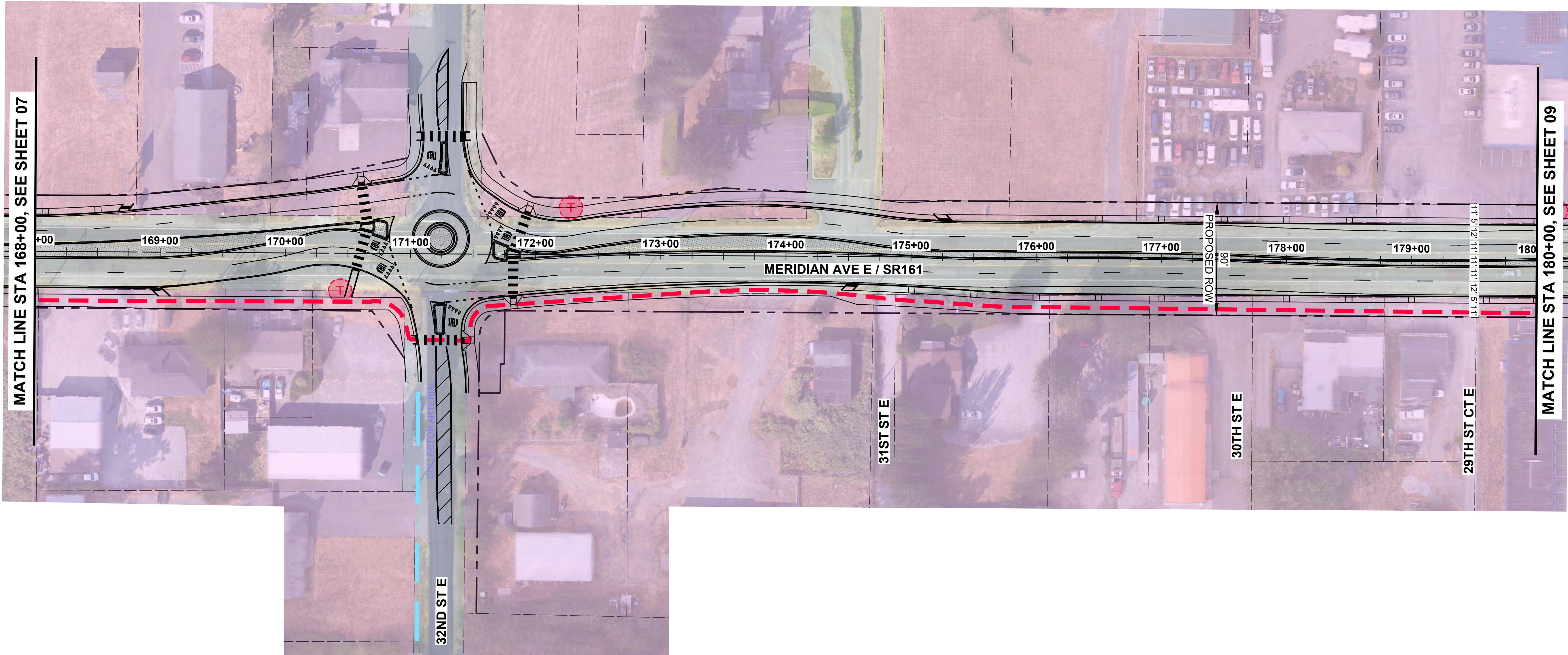
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CONSTRUCTION NOTES:

GENERAL NOTES:

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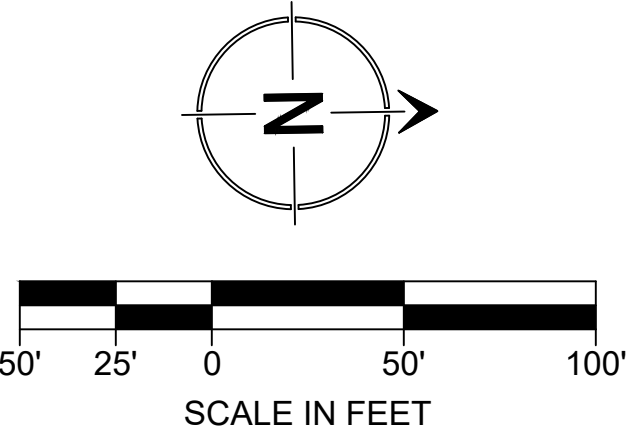
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- EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
- PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.

FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	2/24
Designed	KAH	2/24
Reviewed	KAH	2/24
Approved	VLS	2/24
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B6
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP08

SHEET 8
OF 11

SEC. 15, T 20 N, R 04 E, W.M.

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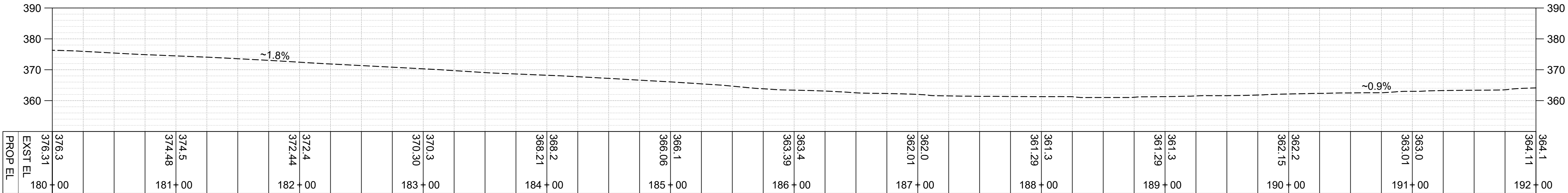
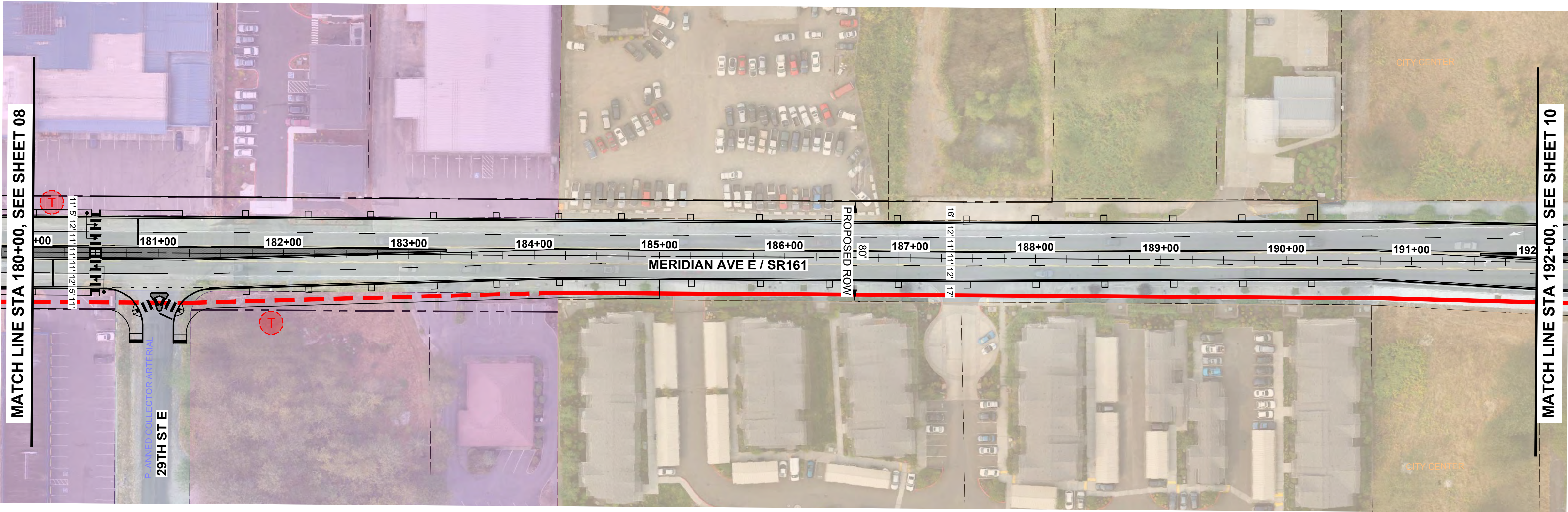
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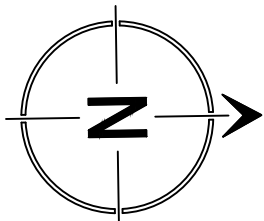
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-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		



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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B1
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP09

SHEET 9
OF 11

SEC. 15, T 20 N, R 04 E, W.M.

CONSTRUCTION NOTES:

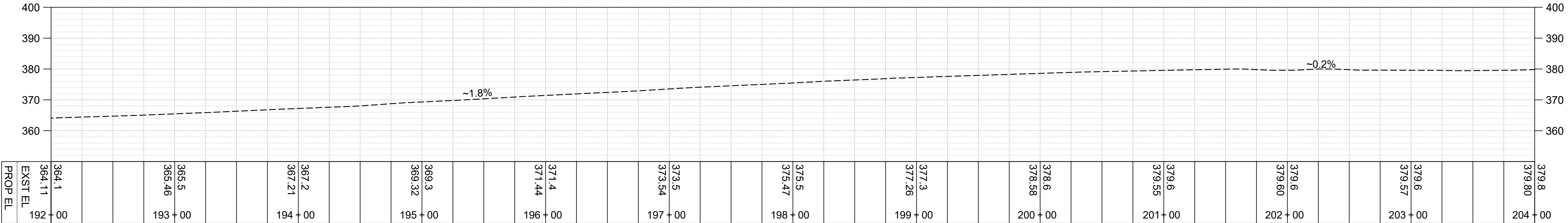
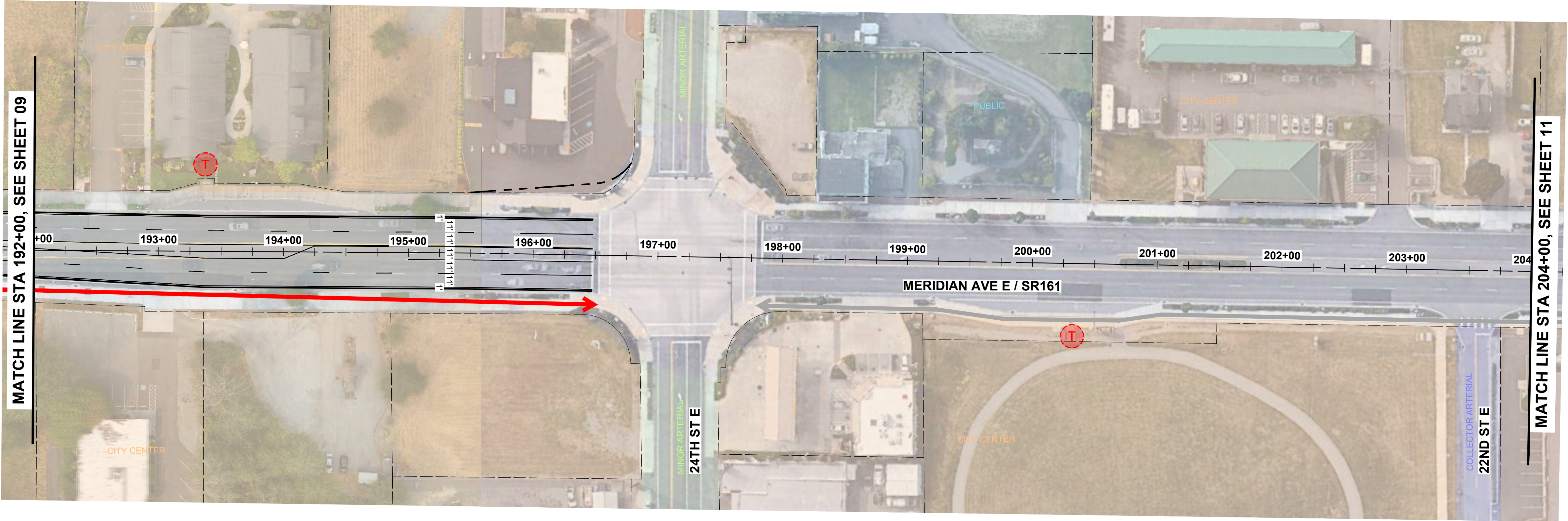
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GENERAL NOTES:

1. ---

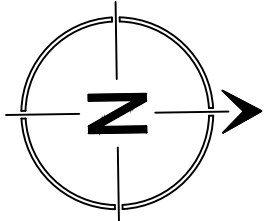
LEGEND:

-  EXISTING TRANSIT STOP
-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY

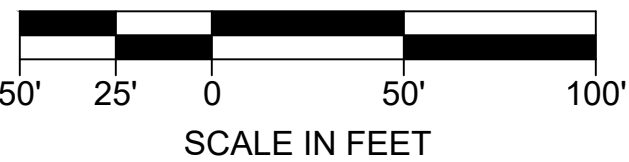


SR 161 (EX CL) PROFILE

SCALE: 1"=50' HORIZ., 1"=20' VERT.



FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY: DATE:		
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		



16932 Woodinville-Redmond Road, Suite A206
Woodinville, WA 98072
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CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.
221033

CONTRACT NO.
-

DRAWING NO.
RP10

SHEET 10
OF 11

C:\Users\ericj\TSJ Dropbox\Eric Jackson\TSJ Projects\2021\221033 City of Edgewood On-Call Services\0400CAD\PS&E\Figure\Roadway Plans\221033 - RP01_Opt.B.dwg, 10/31/23 03:01:37pm

SEC. 15, T 20 N, R 04 E, W.M.

CONSTRUCTION NOTES:

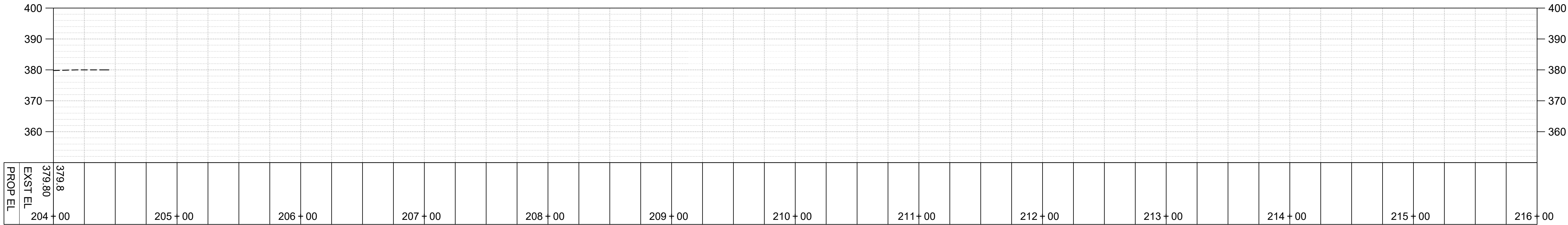
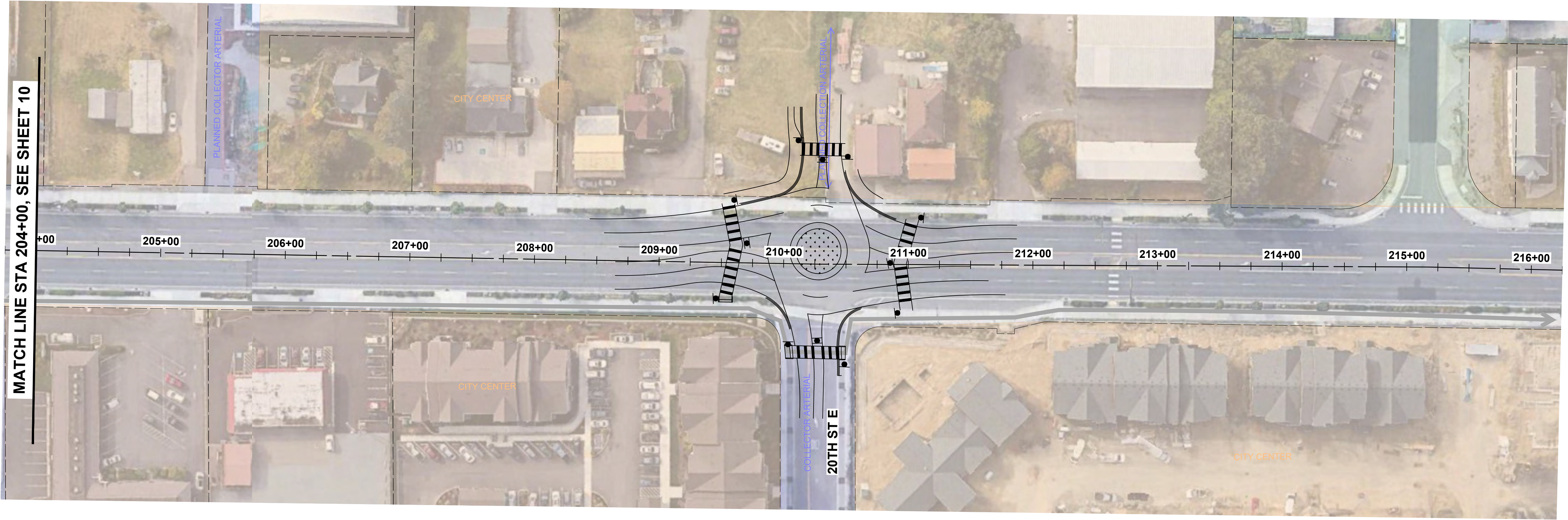
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GENERAL NOTES:

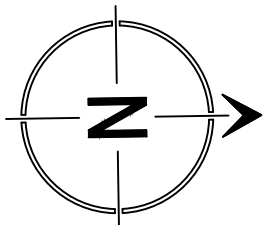
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LEGEND:

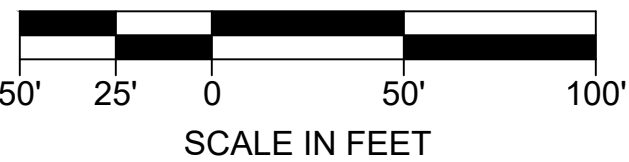
-  EXISTING TRANSIT STOP
-  EXISTING NON-MOTORIZED PATH (OFF-CORRIDOR)
-  EXISTING NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NON-MOTORIZED PATH (ON-CORRIDOR)
-  PLANNED NEW ROADWAY



SR 161 (EX CL) PROFILE
SCALE: 1"=50' HORIZ., 1"=20' VERT.



FOR DISCUSSION ONLY



NO.	BY	DATE	REVISION

BY:		DATE:
Drawn	EWJ	10/23
Designed	KAH	10/23
Reviewed	KAH	10/23
Approved	VLS	10/23
NOT FOR CONSTRUCTION		



CITY OF EDGEWOOD
CORRIDOR IMPROVEMENTS

OPTION B
ROADWAY PLANS CONCEPT
(RECOMMENDED ALTERNATIVE)

PROJECT NO.	221033
CONTRACT NO.	-
DRAWING NO.	RP11
SHEET	11
OF	11

Appendix G: Cost Estimate

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:	Meridian (SR 161) Corridor Study	Date:	3/8/24
Design Option	Recommended Option (Alts B and B1) - Phase 1	Prepared by:	KAH
Length:	3,300 feet		
Description:	Construct 32nd roundabout and 29th intersection; widen from 3 to 4 lanes with walkway/landscape improvements both sides; includes pedestrian hybrid beacon at 164+50; matches to existing 4-lane section at existing 36th intersection.		

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT						
Preparation						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1	Mobilization (10% of remaining items)	L.S.	1	\$826,500.00	\$826,500.00	10.0%	---	---	---	---	---
2	Construction Surveying	L.S.	1	\$123,700.00	\$123,700.00	1.5%	---	---	---	---	1.5% of Construction Subtotal
3	Construction Site Signs	L.S.	1	\$3,000.00	\$3,000.00	---	---	---	---	---	10 signs at \$300/sign
4	Clearing and Grubbing	L.S.	1	\$15,000.00	\$15,000.00	---	---	---	---	---	Clearing and Grubbing for roadway widening beyond existing pavement plus an additi
5	Removal of Structures and Obstructions	L.S.	1	\$80,000.00	\$80,000.00	---	---	---	---	---	---
6	Removing Catch Basin	EA.	6	\$750.00	\$4,500.00	6	---	---	---	---	---
7	Removing Cement Conc. Flatwork	S.Y.	56	\$15.00	\$840.00	---	50	10	---	9	---
8	Removing Cement Conc. Curb and Gutter	L.F.	100	\$10.00	\$1,000.00	---	100	---	---	---	---
9	Removing Extruded Curb	L.F.	100	\$10.00	\$1,000.00	---	100	---	---	---	---
10	Removing Pavement Markings	L.S.	1	\$10,000.00	\$10,000.00	---	---	---	---	---	---
11	Removing Asphalt Conc. Pavement	S.Y.	5,167	\$20.00	\$103,340.00	---	2325	20	---	9	---
12	Removing Reinf. Cement Conc. Pavement	F.A.	0	\$5,000.00	\$0.00	---	---	---	---	---	---
Preparation Subtotal					\$1,168,880.00						
Grading						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
13	Roadway Excavation Incl. Haul	C.Y.	9,817	\$45.00	\$441,765.00	---	2325	57	2	27	---
14	Unsuitable Foundation Excavation Incl. Haul	C.Y.	982	\$65.00	\$63,830.00	---	0	0	3	27	Assumes 10% of Item 13.
15	Ballast	TON	0	\$50.00	\$0.00	---	0	0	0	27	1.95
16	Gravel Borrow Incl. Haul	TON	9,081	\$35.00	\$317,835.00	---	2325	57	1	27	1.85
17	Crushed Surfacing Base Course	TON	2,562	\$45.00	\$115,290.00	---	2325	24	0.67	27	1.85
18	Crushed Surfacing Top Course	TON	1,683	\$55.00	\$92,565.00	---	2325	32	0.33	27	1.85
19	Controlled Density Fill (CDF)	C.Y.	0	\$90.00	\$0.00	---	0	0	0	27	---
20	Structure Excavation for Utility Vault or J-Box	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
21	Utility Trenching	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
22	Sand Bedding for Utility Trenches	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.55
23	Foundation Material for Utility Vault or J-Box	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.85
24	Shoring or Extra Excavation Class B	S.F.	0	\$3.00	\$0.00	---	0	---	4	---	Total Pipe length * 4 feet
Grading Subtotal					\$1,031,285.00						
Storm Drainage						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
25	Adjust Catch Basin	EA.	0	\$1,200.00	\$0.00	0	---	---	---	---	---
26	Area Inlet	EA.	0	\$1,600.00	\$0.00	0	---	---	---	---	---
27	Catch Basin Type 1	EA.	12	\$2,800.00	\$33,600.00	12	---	---	---	---	cb every 200 ' both sides/2
28	Catch Basin Type 1L	EA.	6	\$3,000.00	\$18,000.00	6	---	---	---	---	cb every 200 ' both sides/4
29	Catch Basin Type 2, 48 In. Diam.	EA.	6	\$6,000.00	\$36,000.00	6	---	---	---	---	cb every 200 ' both sides/4
30	Catch Basin Type 2, w/ Oil-Water Separator	EA.	2	\$9,000.00	\$18,000.00	2	---	---	---	---	---
31	Underdrain Pipe 6 In. Diam.	L.F.	0	\$30.00	\$0.00	---	0	---	---	---	---
32	Storm Sewer Pipe 8 In. Diam.	L.F.	0	\$40.00	\$0.00	---	0	---	---	---	---
33	Storm Sewer Pipe 12 In. Diam.	L.F.	684	\$100.00	\$68,400.00	---	684	---	---	---	Assume 12" pipe for all crossings
34	Storm Sewer Pipe 18 In. Diam.	L.F.	1,160	\$140.00	\$162,400.00	---	1160	---	---	---	Assume 18" trunkline half of length of road
35	Storm Sewer Pipe 24 In. Diam.	L.F.	1,160	\$180.00	\$208,800.00	---	1160	---	---	---	Assume 24" trunkline half of length of road
36	Connect to Existing Drainage Structure	EA.	2	\$1,200.00	\$2,400.00	2	---	---	---	---	---
37	Culvert / Stream Crossing (approx. 72 In. Diam.)	L.F.	0	\$1,000.00	\$0.00	---	0	---	---	---	---
38	Stormwater Detention / Water Quality Facility	L.S.	1	\$800,000.00	\$800,000.00	---	---	---	---	---	---
Storm Drainage Subtotal					\$1,347,600.00						

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:	Meridian (SR 161) Corridor Study	Date:	3/8/24
Design Option	Recommended Option (Alts B and B1) - Phase 1	Prepared by:	KAH
Length:	3,300 feet		
Description:	Construct 32nd roundabout and 29th intersection; widen from 3 to 4 lanes with walkway/landscape improvements both sides; includes pedestrian hybrid beacon at 164+50; matches to existing 4-lane section at existing 36th intersection.		

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT
Paving					
39	Planing Bituminous Pavement	S.Y.	294	\$25.00	\$7,350.00
40	Hot Mix Asphalt	TON	5,450	\$145.00	\$790,250.00
41	Incidental Hot Mix Asphalt	TON	60	\$155.00	\$9,300.00
HMA Subtotal					\$806,900.00

Concrete					
42	Cement Conc. Driveway Entrance	S.Y.	356	\$100.00	\$35,600.00
43	Cement Conc. Sidewalk	S.Y.	7,320	\$65.00	\$475,800.00
44	Cement Conc. Curb Ramp Type ____	EA.	14	\$3,500.00	\$49,000.00
45	Cement Conc. Barrier Curb and Gutter	L.F.	4,250	\$40.00	\$170,000.00
46	Mountable Cement Conc. Traffic Curb	L.F.	0	\$30.00	\$0.00
47	Roundabout Truck Apron Cement Conc. C & G	L.F.	0	\$75.00	\$0.00
48	Roundabout, Central and Splitter Islands Complete	L.S.	1	\$1,500,000.00	\$1,500,000.00
49	Cement Concrete Roadway	C.Y.	0	\$450.00	\$0.00
Concrete Subtotal					\$2,230,400.00

Structures					
50	Structure Excavation Class A Incl. Haul	C.Y.	149	\$45.00	\$6,705.00
51	Gravel Backfill for Walls	TON	140	\$70.00	\$9,800.00
52	Retaining Wall > 8'	S.F.	0	\$235.00	\$0.00
53	Retaining Wall <= 8'	S.F.	2,000	\$100.00	\$200,000.00
54	Bridge Structure	S.F.	0	\$900.00	\$0.00
Structures Subtotal					\$216,505.00

TESC and Landscaping					
55	Temporary Water Pollution / Erosion Control	L.S.	1	\$124,100.00	\$124,100.00
56	Inlet Protection	EA.	26	\$110.00	\$2,860.00
57	Silt Fence	L.F.	2,300	\$7.00	\$16,100.00
58	Topsoil Type C	C.Y.	282	\$65.00	\$18,330.00
59	Sod Installation	S.Y.	0	\$35.00	\$0.00
60	Trees	EA.	92	\$600.00	\$55,200.00
61	Plant Selection and Estab. (various species)	S.Y.	3,378	\$40.00	\$135,120.00
62	Miscellaneous Improvements (Property Restoration)	L.S.	1	\$50,000.00	\$50,000.00
63	Irrigation System Complete	L.S.	1	\$171,000.00	\$171,000.00
64	Irrigation System Repair	F.A.	1	\$5,000.00	\$5,000.00
TESC and Landscaping Subtotal					\$577,710.00

Traffic					
65	Paint Line	L.F.	9,400	\$2.00	\$18,800.00
66	Plastic Bicycle Lane Symbol	EA.	19	\$550.00	\$10,450.00
67	Plastic Line	L.F.	9,400	\$5.00	\$47,000.00
68	Plastic Stop Line	L.F.	103	\$20.00	\$2,060.00
69	Plastic Yield Line Symbol	EA.	24	\$55.00	\$1,320.00
70	Plastic Crosswalk Line	S.F.	1,520	\$15.00	\$22,800.00
71	Plastic Traffic Arrow	EA.	3	\$400.00	\$1,200.00
72	Raised Pavement Marker, Type 1	HUND.	0	\$600.00	\$0.00
73	Raised Pavement Marker, Type 2	HUND.	0	\$1,000.00	\$0.00
74	Permanent Signing	EA.	23	\$400.00	\$9,200.00

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	60	44	---	9	---
---	2325	46	0.67	27	2.05
---	200	15	0.25	27	2.05

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	200	16	---	9	---
---	2125	31	---	9	---
14	---	---	---	---	---
---	4250	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
---	---	---	---	---	---
---	0	0	0.0	27	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	500	2	4	27	---
---	500	1	4	27	1.85
---	0	---	10	---	---
---	500	---	4	---	---
---	0	0	---	---	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1.5%	---	---	---	---	---
26	---	---	---	---	---
---	2300	---	---	---	---
---	3800	8	0.25	27	---
---	0	0	---	9	---
92	---	---	---	---	---
---	3800	8	---	9	---
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

EA/Day/Hr	Length (FT)	Width (FT)	Depth (FT)	DYCL	Tons/CY
---	9400	---	---	---	---
19	---	---	---	---	---
---	9400	---	---	---	---
---	103	---	---	---	---
24	---	---	---	---	---
---	152	10	---	---	---
3	---	---	---	---	---
---	0	---	---	0.60	---
---	0	---	---	0.10	---
23	---	---	---	---	---

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:Meridian (SR 161) Corridor Study

Date:3/8/24

Design OptionRecommended Option (Alts B and B1) - Phase 1

Prepared by:KAH

Length:3,300 feet

Description:Construct 32nd roundabout and 29th intersection; widen from 3 to 4 lanes with walkway/landscape improvements both sides; includes pedestrian hybrid beacon at 164+50; matches to existing 4-lane section at existing 36th intersection.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT								
75	Beam Guardrail Type 31	L.F.	0	\$45.00	\$0.00	---	0	---	---	---	---	---	Guardrail at all fill walls and fill slopes
76	Beam Guardrail Terminal	EA.	0	\$4,000.00	\$0.00	0	---	---	---	---	---		
77	Beam Guardrail Anchor	EA.	0	\$1,000.00	\$0.00	0	---	---	---	---	---		
78	Safety Handrail	L.F.	0	\$200.00	\$0.00	---	0	---	---	---	---	---	At all fill walls
79	Remove Existing Traffic Signal System	L.S.	0	\$75,000.00	\$0.00	---	---	---	---	---	---		
80	Foundation Potholing	EA.	0	\$1,000.00	\$0.00	0	---	---	---	---	---		
81	Traffic Signal System Complete	L.S.	0	\$400,000.00	\$0.00	---	---	---	---	---	---	---	
82	Pedestrian Hybrid Beacon System Complete	L.S.	2	\$250,000.00	\$500,000.00	---	---	---	---	---	---	---	
83	Interconnect System Complete	L.S.	1	\$50,000.00	\$50,000.00	---	---	---	---	---	---	---	
84	Illumination System Complete	L.S.	0	\$200,000.00	\$0.00	---	---	---	---	---	---	---	
85	Adjust Junction Box	EA.	10	\$800.00	\$8,000.00	10	---	---	---	---	---	---	
86	Street Lighting	EA.	33	\$7,500.00	\$247,500.00	33	---	---	---	---	---	---	One luminaire every 200 feet both sides of the road
87	Temporary Traffic Control Devices	L.S.	1	\$100,000.00	\$100,000.00	---	---	---	---	---	---		
88	Traffic Control Labor - Flagging	HOURL	5,120	\$75.00	\$384,000.00	5120	---	---	---	---	---		
89	Portable Sequential Arrow Sign	EA.	2	\$4,000.00	\$8,000.00	2	---	---	---	---	---	---	160 working days, 8 hours a day, 4 flaggers needed. 160
90	Portable Changeable Message Sign	EA.	2	\$6,000.00	\$12,000.00	2	---	---	---	---	---		
91	Operation of Portable Sequential Arrow Sign	DAY	160	\$1,000.00	\$160,000.00	160	---	---	---	---	---	---	Assume use for half the number of working days
92	Operation of Portable Changeable Message Sign	DAY	320	\$1,000.00	\$320,000.00	320	---	---	---	---	---	---	Assume use for the number of working days
Traffic Subtotal					\$1,902,330.00								
Other Items						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY		
93	Utility Relocates	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---	---	Franchise, cost by others
94	Undergrounding Utilities	L.F.	0	\$400.00	\$0.00	---	0	---	---	---	---		
95	Monument Case and Cover	EA.	2	\$1,500.00	\$3,000.00	2	---	---	---	---	---	---	Placed at all intersections and pc's/pt's
96	Adjust Monument Case and Cover	EA.	2	\$1,000.00	\$2,000.00	2	---	---	---	---	---		
97	Trimming and Cleanup	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---	---	
Other Items Subtotal					\$65,000.00								
SUBTOTAL					\$9,346,610.00								
CONTINGENCY		40%			\$3,738,650.00								
CONSTRUCTION SUBTOTAL					\$13,085,260.00								
DESIGN ENGINEERING		15%	(of Constr. Subtotal)		\$1,962,790.00								
CONSTRUCTION ENGINEERING		15%	(of Constr. Subtotal)		\$1,962,790.00								
PROJECT ADMINISTRATION		5%	(of Constr. Subtotal)		\$654,270.00								
ENGR. AND ADMIN. SUBTOTAL					\$4,579,850.00								
ENVIRONMENTAL ENGINEERING		2%	(of Constr. Subtotal)		\$261,710.00								
ENVIRONMENTAL MITIGATION		1%	(of Constr. Subtotal)		\$130,860.00								
ENVIRONMENTAL SUBTOTAL					\$392,570.00								
RIGHT-OF-WAY													
Commercial Property		S.F.	0	\$50.00	\$0.00								
Residential Property		S.F.	0	\$35.00	\$0.00								
Number of Individual Properties		EA.	0	\$10,000.00	\$0.00								
RIGHT-OF-WAY SUBTOTAL					\$0.00								
TOTAL PROJECT COST					\$18,057,680.00								

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project: Meridian (SR 161) Corridor Study Date: 3/8/24
Design Option Recommended Option (Alts A2 and B6) - Phase 2 Prepared by: KAH

Length: 1,400 feet
Description: Construct 36th roundabout and disconnect Chrisella with a cul-de-sac (new Chrisella alignment and cul-de-sac excluded from Meridian estimate); matches to existing 3-lane section to the south until Phase 3 is constructed.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT						
Preparation						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1	Mobilization (10% of remaining items)	L.S.	1	\$515,600.00	\$515,600.00	10.0%	---	---	---	---	---
2	Construction Surveying	L.S.	1	\$76,100.00	\$76,100.00	1.5%	---	---	---	---	1.5% of Construction Subtotal
3	Construction Site Signs	L.S.	1	\$3,000.00	\$3,000.00	---	---	---	---	---	10 signs at \$300/sign
4	Clearing and Grubbing	L.S.	1	\$10,000.00	\$10,000.00	---	---	---	---	---	Clearing and Grubbing for roadway widening beyond existing pavement plus an additi
5	Removal of Structures and Obstructions	L.S.	1	\$40,000.00	\$40,000.00	---	---	---	---	---	---
6	Removing Catch Basin	EA.	2	\$750.00	\$1,500.00	2	---	---	---	---	---
7	Removing Cement Conc. Flatwork	S.Y.	0	\$15.00	\$0.00	---	0	0	---	9	---
8	Removing Cement Conc. Curb and Gutter	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---
9	Removing Extruded Curb	L.F.	100	\$10.00	\$1,000.00	---	100	---	---	---	---
10	Removing Pavement Markings	L.S.	1	\$5,000.00	\$5,000.00	---	---	---	---	---	---
11	Removing Asphalt Conc. Pavement	S.Y.	2,667	\$20.00	\$53,340.00	---	600	40	---	9	---
12	Removing Reinf. Cement Conc. Pavement	F.A.	0	\$5,000.00	\$0.00	---	---	---	---	---	---
Preparation Subtotal					\$705,540.00						
Grading						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
13	Roadway Excavation Incl. Haul	C.Y.	1,778	\$45.00	\$80,010.00	---	600	40	2	27	---
14	Unsuitable Foundation Excavation Incl. Haul	C.Y.	178	\$65.00	\$11,570.00	---	0	0	3	27	Assumes 10% of Item 13.
15	Ballast	TON	0	\$50.00	\$0.00	---	0	0	0	27	1.95
16	Gravel Borrow Incl. Haul	TON	1,645	\$35.00	\$57,575.00	---	600	40	1	27	1.85
17	Crushed Surfacing Base Course	TON	1,286	\$45.00	\$57,870.00	---	1400	20	0.67	27	1.85
18	Crushed Surfacing Top Course	TON	760	\$55.00	\$41,800.00	---	1400	24	0.33	27	1.85
19	Controlled Density Fill (CDF)	C.Y.	0	\$90.00	\$0.00	---	0	0	0	27	---
20	Structure Excavation for Utility Vault or J-Box	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
21	Utility Trenching	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
22	Sand Bedding for Utility Trenches	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.55
23	Foundation Material for Utility Vault or J-Box	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.85
24	Shoring or Extra Excavation Class B	S.F.	0	\$3.00	\$0.00	---	0	---	4	---	Total Pipe length * 4 feet
Grading Subtotal					\$248,825.00						
Storm Drainage						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
25	Adjust Catch Basin	EA.	0	\$1,200.00	\$0.00	0	---	---	---	---	---
26	Area Inlet	EA.	0	\$1,600.00	\$0.00	0	---	---	---	---	---
27	Catch Basin Type 1	EA.	7	\$2,800.00	\$19,600.00	7	---	---	---	---	cb every 200 ' both sides/2
28	Catch Basin Type 1L	EA.	4	\$3,000.00	\$12,000.00	4	---	---	---	---	cb every 200 ' both sides/4
29	Catch Basin Type 2, 48 In. Diam.	EA.	4	\$6,000.00	\$24,000.00	4	---	---	---	---	cb every 200 ' both sides/4
30	Catch Basin Type 2, w/ Oil-Water Separator	EA.	1	\$9,000.00	\$9,000.00	1	---	---	---	---	---
31	Underdrain Pipe 6 In. Diam.	L.F.	0	\$30.00	\$0.00	---	0	---	---	---	---
32	Storm Sewer Pipe 8 In. Diam.	L.F.	0	\$40.00	\$0.00	---	0	---	---	---	---
33	Storm Sewer Pipe 12 In. Diam.	L.F.	280	\$100.00	\$28,000.00	---	280	---	---	---	Assume 12" pipe for all crossings
34	Storm Sewer Pipe 18 In. Diam.	L.F.	700	\$140.00	\$98,000.00	---	700	---	---	---	Assume 18" trunkline half of length of road
35	Storm Sewer Pipe 24 In. Diam.	L.F.	710	\$180.00	\$127,800.00	---	710	---	---	---	Assume 24" trunkline half of length of road
36	Connect to Existing Drainage Structure	EA.	2	\$1,200.00	\$2,400.00	2	---	---	---	---	---
37	Culvert / Stream Crossing (approx. 72 In. Diam.)	L.F.	0	\$1,000.00	\$0.00	---	0	---	---	---	---
38	Stormwater Detention / Water Quality Facility	L.S.	1	\$400,000.00	\$400,000.00	---	---	---	---	---	---
Storm Drainage Subtotal					\$720,800.00						

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project: Meridian (SR 161) Corridor Study Date: 3/8/24
Design Option Recommended Option (Alts A2 and B6) - Phase 2 Prepared by: KAH

Length: 1,400 feet
Description: Construct 36th roundabout and disconnect Chrisella with a cul-de-sac (new Chrisella alignment and cul-de-sac excluded from Meridian estimate); matches to existing 3-lane section to the south until Phase 3 is constructed.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT
Paving					
39	Planing Bituminous Pavement	S.Y.	294	\$25.00	\$7,350.00
40	Hot Mix Asphalt	TON	4,060	\$145.00	\$588,700.00
41	Incidental Hot Mix Asphalt	TON	20	\$155.00	\$3,100.00
HMA Subtotal					\$599,150.00

Concrete					
42	Cement Conc. Driveway Entrance	S.Y.	107	\$100.00	\$10,700.00
43	Cement Conc. Sidewalk	S.Y.	1,712	\$65.00	\$111,280.00
44	Cement Conc. Curb Ramp Type ____	EA.	8	\$3,500.00	\$28,000.00
45	Cement Conc. Barrier Curb and Gutter	L.F.	2,800	\$40.00	\$112,000.00
46	Mountable Cement Conc. Traffic Curb	L.F.	0	\$30.00	\$0.00
47	Roundabout Truck Apron Cement Conc. C & G	L.F.	0	\$75.00	\$0.00
48	Roundabout, Central and Splitter Islands Complete	L.S.	1	\$1,800,000.00	\$1,800,000.00
49	Cement Concrete Roadway	C.Y.	0	\$450.00	\$0.00
Concrete Subtotal					\$2,061,980.00

Structures					
50	Structure Excavation Class A Incl. Haul	C.Y.	112	\$45.00	\$5,040.00
51	Gravel Backfill for Walls	TON	110	\$70.00	\$7,700.00
52	Retaining Wall > 8'	S.F.	0	\$235.00	\$0.00
53	Retaining Wall <= 8'	S.F.	1,500	\$100.00	\$150,000.00
54	Bridge Structure	S.F.	0	\$900.00	\$0.00
Structures Subtotal					\$162,740.00

TESC and Landscaping					
55	Temporary Water Pollution / Erosion Control	L.S.	1	\$76,400.00	\$76,400.00
56	Inlet Protection	EA.	16	\$110.00	\$1,760.00
57	Silt Fence	L.F.	2,800	\$7.00	\$19,600.00
58	Topsoil Type C	C.Y.	67	\$65.00	\$4,355.00
59	Sod Installation	S.Y.	0	\$35.00	\$0.00
60	Trees	EA.	20	\$600.00	\$12,000.00
61	Plant Selection and Estab. (various species)	S.Y.	800	\$40.00	\$32,000.00
62	Miscellaneous Improvements (Property Restoration)	L.S.	1	\$20,000.00	\$20,000.00
63	Irrigation System Complete	L.S.	1	\$40,000.00	\$40,000.00
64	Irrigation System Repair	F.A.	1	\$5,000.00	\$5,000.00
TESC and Landscaping Subtotal					\$211,115.00

Traffic					
65	Paint Line	L.F.	5,600	\$2.00	\$11,200.00
66	Plastic Bicycle Lane Symbol	EA.	0	\$550.00	\$0.00
67	Plastic Line	L.F.	5,600	\$5.00	\$28,000.00
68	Plastic Stop Line	L.F.	0	\$20.00	\$0.00
69	Plastic Yield Line Symbol	EA.	24	\$55.00	\$1,320.00
70	Plastic Crosswalk Line	S.F.	950	\$15.00	\$14,250.00
71	Plastic Traffic Arrow	EA.	0	\$400.00	\$0.00
72	Raised Pavement Marker, Type 1	HUND.	0	\$600.00	\$0.00
73	Raised Pavement Marker, Type 2	HUND.	0	\$1,000.00	\$0.00
74	Permanent Signing	EA.	14	\$400.00	\$5,600.00

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	60	44	---	9	---
---	1400	57	0.67	27	2.05
---	60	15	0.25	27	2.05

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	60	16	---	9	---
---	1400	11	---	9	---
8	---	---	---	---	---
---	2800	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
---	0	0	0.0	27	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	300	2	5	27	---
---	300	1	5	27	1.85
---	0	---	10	---	---
---	300	---	5	---	---
---	0	0	---	---	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1.5%	---	---	---	---	---
16	---	---	---	---	---
---	2800	---	---	---	---
---	900	8	0.25	27	---
---	0	0	---	9	---
20	---	---	---	---	---
---	900	8	---	9	---
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

EA/Day/Hr	Length (FT)	Width (FT)	Depth (FT)	DYCL	Tons/CY
---	5600	---	---	---	---
0	---	---	---	---	---
---	5600	---	---	---	---
---	0	---	---	---	---
24	---	---	---	---	---
---	95	10	---	---	---
0	---	---	---	---	---
---	0	---	---	0.60	---
---	0	---	---	0.10	---
14	---	---	---	---	---

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:Meridian (SR 161) Corridor Study

Date:3/8/24

Design OptionRecommended Option (Alts A2 and B6) - Phase 2

Prepared by:KAH

Length:1,400 feet

Description:Construct 36th roundabout and disconnect Chrisella with a cul-de-sac (new Chrisella alignment and cul-de-sac excluded from Meridian estimate); matches to existing 3-lane section to the south until Phase 3 is constructed.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT								
75	Beam Guardrail Type 31	L.F.	200	\$45.00	\$9,000.00	---	200	---	---	---	---	---	Guardrail at all fill walls and fill slopes
76	Beam Guardrail Terminal	EA.	1	\$4,000.00	\$4,000.00	1	---	---	---	---	---		
77	Beam Guardrail Anchor	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---		
78	Safety Handrail	L.F.	100	\$200.00	\$20,000.00	---	100	---	---	---	---	---	At all fill walls
79	Remove Existing Traffic Signal System	L.S.	1	\$75,000.00	\$75,000.00	---	---	---	---	---	---		
80	Foundation Potholing	EA.	0	\$1,000.00	\$0.00	0	---	---	---	---	---		
81	Traffic Signal System Complete	L.S.	0	\$400,000.00	\$0.00	---	---	---	---	---	---	---	
82	Pedestrian Hybrid Beacon System Complete	L.S.	0	\$250,000.00	\$0.00	---	---	---	---	---	---	---	
83	Interconnect System Complete	L.S.	0	\$25,000.00	\$0.00	---	---	---	---	---	---	---	
84	Illumination System Complete	L.S.	0	\$200,000.00	\$0.00	---	---	---	---	---	---	---	
85	Adjust Junction Box	EA.	0	\$800.00	\$0.00	0	---	---	---	---	---	---	
86	Street Lighting	EA.	14	\$7,500.00	\$105,000.00	14	---	---	---	---	---	---	One luminaire every 200 feet both sides of the road
87	Temporary Traffic Control Devices	L.S.	1	\$50,000.00	\$50,000.00	---	---	---	---	---	---		
88	Traffic Control Labor - Flagging	HOURL	3,840	\$75.00	\$288,000.00	3840	---	---	---	---	---		
89	Portable Sequential Arrow Sign	EA.	2	\$4,000.00	\$8,000.00	2	---	---	---	---	---	---	120 working days, 8 hours a day, 4 flaggers needed. 120
90	Portable Changeable Message Sign	EA.	2	\$6,000.00	\$12,000.00	2	---	---	---	---	---		
91	Operation of Portable Sequential Arrow Sign	DAY	120	\$1,000.00	\$120,000.00	120	---	---	---	---	---	---	Assume use for half the number of working days
92	Operation of Portable Changeable Message Sign	DAY	240	\$1,000.00	\$240,000.00	240	---	---	---	---	---	---	Assume use for the number of working days
Traffic Subtotal					\$992,370.00								
Other Items						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY		
93	Utility Relocates	L.S.	1	\$20,000.00	\$20,000.00	---	---	---	---	---	---	---	Franchise, cost by others
94	Undergrounding Utilities	L.F.	0	\$400.00	\$0.00	---	0	---	---	---	---		
95	Monument Case and Cover	EA.	2	\$1,500.00	\$3,000.00	2	---	---	---	---	---	---	Placed at all intersections and pc's/pt's
96	Adjust Monument Case and Cover	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---		
97	Trimming and Cleanup	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---	---	
Other Items Subtotal					\$54,000.00								
SUBTOTAL					\$5,756,520.00								
CONTINGENCY		40%			\$2,302,610.00								
CONSTRUCTION SUBTOTAL					\$8,059,130.00								
DESIGN ENGINEERING		15%	(of Constr. Subtotal)		\$1,208,870.00								
CONSTRUCTION ENGINEERING		15%	(of Constr. Subtotal)		\$1,208,870.00								
PROJECT ADMINISTRATION		5%	(of Constr. Subtotal)		\$402,960.00								
ENGR. AND ADMIN. SUBTOTAL					\$2,820,700.00								
ENVIRONMENTAL ENGINEERING		2%	(of Constr. Subtotal)		\$161,190.00								
ENVIRONMENTAL MITIGATION		1%	(of Constr. Subtotal)		\$80,600.00								
ENVIRONMENTAL SUBTOTAL					\$241,790.00								
RIGHT-OF-WAY													
Commercial Property		S.F.	0	\$50.00	\$0.00								
Residential Property		S.F.	0	\$35.00	\$0.00								
Number of Individual Properties		EA.	0	\$10,000.00	\$0.00								
RIGHT-OF-WAY SUBTOTAL					\$0.00								
TOTAL PROJECT COST					\$11,121,620.00								

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:Meridian (SR 161) Corridor Study

Date:3/8/24

Design OptionRecommended Option (Alt A2) - Phase 3

Prepared by:KAH

Length:2,400 feet

Description: Maintain 3 lane corridor; construct 102nd intersection with with added deceleration/acceleration lane for ingress/egress; extend shared use path (east side) from 36th roundabout south to 43rd; matches to existing 3-lane section to the south until Phase 4.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT						
Preparation						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1	Mobilization (10% of remaining items)	L.S.	1	\$898,900.00	\$898,900.00	10.0%	---	---	---	---	---
2	Construction Surveying	L.S.	1	\$131,900.00	\$131,900.00	1.5%	---	---	---	---	1.5% of Construction Subtotal
3	Construction Site Signs	L.S.	1	\$3,000.00	\$3,000.00	---	---	---	---	---	10 signs at \$300/sign
4	Clearing and Grubbing	L.S.	1	\$60,000.00	\$60,000.00	---	---	---	---	---	Clearing and Grubbing for roadway widening beyond existing pavement plus an additi
5	Removal of Structures and Obstructions	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---
6	Removing Catch Basin	EA.	0	\$750.00	\$0.00	0	---	---	---	---	---
7	Removing Cement Conc. Flatwork	S.Y.	0	\$15.00	\$0.00	---	0	0	---	9	---
8	Removing Cement Conc. Curb and Gutter	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---
9	Removing Extruded Curb	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---
10	Removing Pavement Markings	L.S.	1	\$10,000.00	\$10,000.00	---	---	---	---	---	---
11	Removing Asphalt Conc. Pavement	S.Y.	1,334	\$20.00	\$26,680.00	---	2400	5	---	9	---
12	Removing Reinf. Cement Conc. Pavement	F.A.	0	\$5,000.00	\$0.00	---	---	---	---	---	---
Preparation Subtotal					\$1,160,480.00						
Grading						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
13	Roadway Excavation Incl. Haul	C.Y.	6,445	\$45.00	\$290,025.00	---	2900	20	3	27	---
14	Unsuitable Foundation Excavation Incl. Haul	C.Y.	645	\$65.00	\$41,925.00	---	0	0	3	27	Assumes 10% of Item 13.
15	Ballast	TON	0	\$50.00	\$0.00	---	0	0	0	27	1.95
16	Gravel Borrow Incl. Haul	TON	994	\$35.00	\$34,790.00	---	2900	5	1	27	1.85
17	Crushed Surfacing Base Course	TON	551	\$45.00	\$24,795.00	---	2400	5	0.67	27	1.85
18	Crushed Surfacing Top Course	TON	652	\$55.00	\$35,860.00	---	2400	12	0.33	27	1.85
19	Controlled Density Fill (CDF)	C.Y.	0	\$90.00	\$0.00	---	0	0	0	27	---
20	Structure Excavation for Utility Vault or J-Box	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
21	Utility Trenching	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
22	Sand Bedding for Utility Trenches	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.55
23	Foundation Material for Utility Vault or J-Box	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.85
24	Shoring or Extra Excavation Class B	S.F.	0	\$3.00	\$0.00	---	0	---	4	---	Total Pipe length * 4 feet
Grading Subtotal					\$427,395.00						
Storm Drainage						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
25	Adjust Catch Basin	EA.	0	\$1,200.00	\$0.00	0	---	---	---	---	---
26	Area Inlet	EA.	0	\$1,600.00	\$0.00	0	---	---	---	---	---
27	Catch Basin Type 1	EA.	12	\$2,800.00	\$33,600.00	12	---	---	---	---	cb every 200 ' both sides/2
28	Catch Basin Type 1L	EA.	6	\$3,000.00	\$18,000.00	6	---	---	---	---	cb every 200 ' both sides/4
29	Catch Basin Type 2, 48 In. Diam.	EA.	6	\$6,000.00	\$36,000.00	6	---	---	---	---	cb every 200 ' both sides/4
30	Catch Basin Type 2, w/ Oil-Water Separator	EA.	2	\$9,000.00	\$18,000.00	2	---	---	---	---	---
31	Underdrain Pipe 6 In. Diam.	L.F.	0	\$30.00	\$0.00	---	0	---	---	---	---
32	Storm Sewer Pipe 8 In. Diam.	L.F.	0	\$40.00	\$0.00	---	0	---	---	---	---
33	Storm Sewer Pipe 12 In. Diam.	L.F.	60	\$100.00	\$6,000.00	---	60	---	---	---	Assume 12" pipe for all crossings
34	Storm Sewer Pipe 18 In. Diam.	L.F.	1,200	\$140.00	\$168,000.00	---	1200	---	---	---	Assume 18" trunkline half of length of road
35	Storm Sewer Pipe 24 In. Diam.	L.F.	1,200	\$180.00	\$216,000.00	---	1200	---	---	---	Assume 24" trunkline half of length of road
36	Connect to Existing Drainage Structure	EA.	1	\$1,200.00	\$1,200.00	1	---	---	---	---	---
37	Culvert / Stream Crossing (approx. 72 In. Diam.)	L.F.	0	\$1,000.00	\$0.00	---	0	---	---	---	---
38	Stormwater Detention / Water Quality Facility	L.S.	1	\$400,000.00	\$400,000.00	---	---	---	---	---	---
Storm Drainage Subtotal					\$896,800.00						

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:	Meridian (SR 161) Corridor Study	Date:	3/8/24
Design Option	Recommended Option (Alt A2) - Phase 3	Prepared by:	KAH
Length:	2,400 feet		
Description:	Maintain 3 lane corridor; construct 102nd intersection with with added deceleration/acceleration lane for ingress/egress; extend shared use path (east side) from 36th roundabout south to 43rd; matches to existing 3-lane section to the south until Phase 4.		

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT
Paving					
39	Planing Bituminous Pavement	S.Y.	267	\$25.00	\$6,675.00
40	Hot Mix Asphalt	TON	2,190	\$145.00	\$317,550.00
41	Incidental Hot Mix Asphalt	TON	260	\$155.00	\$40,300.00
HMA Subtotal					\$364,525.00

Concrete					
42	Cement Conc. Driveway Entrance	S.Y.	100	\$100.00	\$10,000.00
43	Cement Conc. Sidewalk	S.Y.	2,134	\$65.00	\$138,710.00
44	Cement Conc. Curb Ramp Type ____	EA.	2	\$3,500.00	\$7,000.00
45	Cement Conc. Barrier Curb and Gutter	L.F.	2,400	\$40.00	\$96,000.00
46	Mountable Cement Conc. Traffic Curb	L.F.	0	\$30.00	\$0.00
47	Roundabout Truck Apron Cement Conc. C & G	L.F.	0	\$75.00	\$0.00
48	Roundabout, Central and Splitter Islands Complete	L.S.	0	\$1,800,000.00	\$0.00
49	Cement Concrete Roadway	C.Y.	0	\$450.00	\$0.00
Concrete Subtotal					\$251,710.00

Structures					
50	Structure Excavation Class A Incl. Haul	C.Y.	908	\$45.00	\$40,860.00
51	Gravel Backfill for Walls	TON	60	\$70.00	\$4,200.00
52	Retaining Wall > 8'	S.F.	24,500	\$235.00	\$5,757,500.00
53	Retaining Wall <= 8'	S.F.	800	\$100.00	\$80,000.00
54	Bridge Structure	S.F.	0	\$900.00	\$0.00
Structures Subtotal					\$5,882,560.00

TESC and Landscaping					
55	Temporary Water Pollution / Erosion Control	L.S.	1	\$132,200.00	\$132,200.00
56	Inlet Protection	EA.	26	\$110.00	\$2,860.00
57	Silt Fence	L.F.	3,000	\$7.00	\$21,000.00
58	Topsoil Type C	C.Y.	89	\$65.00	\$5,785.00
59	Sod Installation	S.Y.	0	\$35.00	\$0.00
60	Trees	EA.	0	\$600.00	\$0.00
61	Plant Selection and Estab. (various species)	S.Y.	1,067	\$40.00	\$42,680.00
62	Miscellaneous Improvements (Property Restoration)	L.S.	1	\$20,000.00	\$20,000.00
63	Irrigation System Complete	L.S.	1	\$38,000.00	\$38,000.00
64	Irrigation System Repair	F.A.	1	\$5,000.00	\$5,000.00
TESC and Landscaping Subtotal					\$267,525.00

Traffic					
65	Paint Line	L.F.	7,200	\$2.00	\$14,400.00
66	Plastic Bicycle Lane Symbol	EA.	0	\$550.00	\$0.00
67	Plastic Line	L.F.	0	\$5.00	\$0.00
68	Plastic Stop Line	L.F.	15	\$20.00	\$300.00
69	Plastic Yield Line Symbol	EA.	24	\$55.00	\$1,320.00
70	Plastic Crosswalk Line	S.F.	0	\$15.00	\$0.00
71	Plastic Traffic Arrow	EA.	4	\$400.00	\$1,600.00
72	Raised Pavement Marker, Type 1	HUND.	0	\$600.00	\$0.00
73	Raised Pavement Marker, Type 2	HUND.	0	\$1,000.00	\$0.00
74	Permanent Signing	EA.	24	\$400.00	\$9,600.00

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	60	40	---	9	---
---	2400	48	0.25	27	2.05
---	500	16	0.42	27	2.05

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	75	12	---	9	---
---	2400	8	---	9	---
2	---	---	---	---	---
---	2400	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
---	0	0	0.0	27	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	2,450	2	5	27	---
---	200	1	4	27	1.85
---	2,450	---	10	---	---
---	200	---	4	---	---
---	0	0	---	---	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1.5%	---	---	---	---	---
26	---	---	---	---	---
---	3000	---	---	---	---
---	2400	4	0.25	27	---
---	0	0	---	9	---
0	---	---	---	---	---
---	2400	4	---	9	---
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

EA/Day/Hr	Length (FT)	Width (FT)	Depth (FT)	DYCL	Tons/CY
---	7200	---	---	---	---
0	---	---	---	---	---
---	0	---	---	---	---
---	15	---	---	---	---
24	---	---	---	---	---
---	0	10	---	---	---
4	---	---	---	---	---
---	0	---	---	0.60	---
---	0	---	---	0.10	---
24	---	---	---	---	---

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:Meridian (SR 161) Corridor Study

Date:3/8/24

Design OptionRecommended Option (Alt A2) - Phase 3

Prepared by:KAH

Length:2,400 feet

Description: Maintain 3 lane corridor; construct 102nd intersection with with added deceleration/acceleration lane for ingress/egress; extend shared use path (east side) from 36th roundabout south to 43rd; matches to existing 3-lane section to the south until Phase 4.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT								
75	Beam Guardrail Type 31	L.F.	200	\$45.00	\$9,000.00	---	200	---	---	---	---	---	Guardrail at all fill walls and fill slopes
76	Beam Guardrail Terminal	EA.	1	\$4,000.00	\$4,000.00	1	---	---	---	---	---	---	
77	Beam Guardrail Anchor	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---	---	
78	Safety Handrail	L.F.	100	\$200.00	\$20,000.00	---	100	---	---	---	---	---	At all fill walls
79	Remove Existing Traffic Signal System	L.S.	0	\$75,000.00	\$0.00	---	---	---	---	---	---	---	
80	Foundation Potholing	EA.	0	\$1,000.00	\$0.00	0	---	---	---	---	---	---	
81	Traffic Signal System Complete	L.S.	0	\$400,000.00	\$0.00	---	---	---	---	---	---	---	
82	Pedestrian Hybrid Beacon System Complete	L.S.	0	\$250,000.00	\$0.00	---	---	---	---	---	---	---	
83	Interconnect System Complete	L.S.	0	\$25,000.00	\$0.00	---	---	---	---	---	---	---	
84	Illumination System Complete	L.S.	0	\$200,000.00	\$0.00	---	---	---	---	---	---	---	
85	Adjust Junction Box	EA.	0	\$800.00	\$0.00	0	---	---	---	---	---	---	
86	Street Lighting	EA.	4	\$7,500.00	\$30,000.00	4	---	---	---	---	---	---	
87	Temporary Traffic Control Devices	L.S.	1	\$50,000.00	\$50,000.00	---	---	---	---	---	---	---	One luminaire every 200 feet both sides of the road
88	Traffic Control Labor - Flagging	HOURL	1,920	\$75.00	\$144,000.00	1920	---	---	---	---	---	---	
89	Portable Sequential Arrow Sign	EA.	2	\$4,000.00	\$8,000.00	2	---	---	---	---	---	---	
90	Portable Changeable Message Sign	EA.	2	\$6,000.00	\$12,000.00	2	---	---	---	---	---	---	
91	Operation of Portable Sequential Arrow Sign	DAY	120	\$1,000.00	\$120,000.00	120	---	---	---	---	---	---	
92	Operation of Portable Changeable Message Sign	DAY	240	\$1,000.00	\$240,000.00	240	---	---	---	---	---	---	
Traffic Subtotal					\$665,220.00								
Other Items						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY		
93	Utility Relocates	L.S.	1	\$20,000.00	\$20,000.00	---	---	---	---	---	---	Franchise, cost by others	
94	Undergrounding Utilities	L.F.	0	\$400.00	\$0.00	---	0	---	---	---	---		
95	Monument Case and Cover	EA.	2	\$1,500.00	\$3,000.00	2	---	---	---	---	---	Placed at all intersections and pc's/pt's	
96	Adjust Monument Case and Cover	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---		
97	Trimming and Cleanup	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---		
Other Items Subtotal					\$54,000.00								
SUBTOTAL					\$9,970,215.00								
CONTINGENCY		40%	\$3,988,090.00										
CONSTRUCTION SUBTOTAL					\$13,958,305.00								
DESIGN ENGINEERING		15%	(of Constr. Subtotal)		\$2,093,750.00								
CONSTRUCTION ENGINEERING		15%	(of Constr. Subtotal)		\$2,093,750.00								
PROJECT ADMINISTRATION		5%	(of Constr. Subtotal)		\$697,920.00								
ENGR. AND ADMIN. SUBTOTAL					\$4,885,420.00								
ENVIRONMENTAL ENGINEERING		2%	(of Constr. Subtotal)		\$279,170.00								
ENVIRONMENTAL MITIGATION		1%	(of Constr. Subtotal)		\$139,590.00								
ENVIRONMENTAL SUBTOTAL					\$418,760.00								
RIGHT-OF-WAY													
Commercial Property		S.F.	0	\$50.00	\$0.00								
Residential Property		S.F.	0	\$35.00	\$0.00								
Number of Individual Properties		EA.	0	\$10,000.00	\$0.00								
RIGHT-OF-WAY SUBTOTAL					\$0.00								
TOTAL PROJECT COST					\$19,262,485.00								

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project: Meridian (SR 161) Corridor Study Date: 3/8/24
Design Option Recommended Option (Alt A2) - Phase 4 Prepared by: KAH

Length: 1,400 feet
Description: Maintain 3 lane corridor; construct new Dechaux Extension roundabout (estimate excludes Dechaux Extension new road); extend shared use path (east side) from 43rd to new roundabout; matches to existing 3-lane section to the south until Phase 5 is constructed.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT							
Preparation						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY	
1	Mobilization (10% of remaining items)	L.S.	1	\$573,600.00	\$573,600.00	10.0%	---	---	---	---	---	
2	Construction Surveying	L.S.	1	\$84,100.00	\$84,100.00	1.5%	---	---	---	---	---	1.5% of Construction Subtotal
3	Construction Site Signs	L.S.	1	\$3,000.00	\$3,000.00	---	---	---	---	---	---	10 signs at \$300/sign
4	Clearing and Grubbing	L.S.	1	\$40,000.00	\$40,000.00	---	---	---	---	---	---	Clearing and Grubbing for roadway widening beyond existing pavement plus an additi
5	Removal of Structures and Obstructions	L.S.	1	\$10,000.00	\$10,000.00	---	---	---	---	---	---	
6	Removing Catch Basin	EA.	0	\$750.00	\$0.00	0	---	---	---	---	---	
7	Removing Cement Conc. Flatwork	S.Y.	0	\$15.00	\$0.00	---	0	0	---	9	---	
8	Removing Cement Conc. Curb and Gutter	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---	
9	Removing Extruded Curb	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---	
10	Removing Pavement Markings	L.S.	1	\$5,000.00	\$5,000.00	---	---	---	---	---	---	
11	Removing Asphalt Conc. Pavement	S.Y.	778	\$20.00	\$15,560.00	---	1400	5	---	9	---	
12	Removing Reinf. Cement Conc. Pavement	F.A.	0	\$5,000.00	\$0.00	---	---	---	---	---	---	
Preparation Subtotal					\$731,260.00							
Grading						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY	
13	Roadway Excavation Incl. Haul	C.Y.	3,112	\$45.00	\$140,040.00	---	1400	20	3	27	---	
14	Unsuitable Foundation Excavation Incl. Haul	C.Y.	312	\$65.00	\$20,280.00	---	0	0	3	27	---	Assumes 10% of Item 13.
15	Ballast	TON	0	\$50.00	\$0.00	---	0	0	0	27	1.95	
16	Gravel Borrow Incl. Haul	TON	994	\$35.00	\$34,790.00	---	2900	5	1	27	1.85	
17	Crushed Surfacing Base Course	TON	551	\$45.00	\$24,795.00	---	2400	5	0.67	27	1.85	
18	Crushed Surfacing Top Course	TON	652	\$55.00	\$35,860.00	---	2400	12	0.33	27	1.85	
19	Controlled Density Fill (CDF)	C.Y.	0	\$90.00	\$0.00	---	0	0	0	27	---	
20	Structure Excavation for Utility Vault or J-Box	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---	
21	Utility Trenching	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---	
22	Sand Bedding for Utility Trenches	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.55	
23	Foundation Material for Utility Vault or J-Box	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.85	
24	Shoring or Extra Excavation Class B	S.F.	0	\$3.00	\$0.00	---	0	---	4	---	---	Total Pipe length * 4 feet
Grading Subtotal					\$255,765.00							
Storm Drainage						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY	
25	Adjust Catch Basin	EA.	0	\$1,200.00	\$0.00	0	---	---	---	---	---	
26	Area Inlet	EA.	0	\$1,600.00	\$0.00	0	---	---	---	---	---	
27	Catch Basin Type 1	EA.	7	\$2,800.00	\$19,600.00	7	---	---	---	---	---	cb every 200 ' both sides/2
28	Catch Basin Type 1L	EA.	4	\$3,000.00	\$12,000.00	4	---	---	---	---	---	cb every 200 ' both sides/4
29	Catch Basin Type 2, 48 In. Diam.	EA.	4	\$6,000.00	\$24,000.00	4	---	---	---	---	---	cb every 200 ' both sides/4
30	Catch Basin Type 2, w/ Oil-Water Separator	EA.	1	\$9,000.00	\$9,000.00	1	---	---	---	---	---	
31	Underdrain Pipe 6 In. Diam.	L.F.	0	\$30.00	\$0.00	---	0	---	---	---	---	
32	Storm Sewer Pipe 8 In. Diam.	L.F.	0	\$40.00	\$0.00	---	0	---	---	---	---	
33	Storm Sewer Pipe 12 In. Diam.	L.F.	35	\$100.00	\$3,500.00	---	35	---	---	---	---	Assume 12" pipe for all crossings
34	Storm Sewer Pipe 18 In. Diam.	L.F.	700	\$140.00	\$98,000.00	---	700	---	---	---	---	Assume 18" trunkline half of length of road
35	Storm Sewer Pipe 24 In. Diam.	L.F.	700	\$180.00	\$126,000.00	---	700	---	---	---	---	Assume 24" trunkline half of length of road
36	Connect to Existing Drainage Structure	EA.	1	\$1,200.00	\$1,200.00	1	---	---	---	---	---	
37	Culvert / Stream Crossing (approx. 72 In. Diam.)	L.F.	0	\$1,000.00	\$0.00	---	0	---	---	---	---	
38	Stormwater Detention / Water Quality Facility	L.S.	1	\$300,000.00	\$300,000.00	---	---	---	---	---	---	
Storm Drainage Subtotal					\$593,300.00							

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:	Meridian (SR 161) Corridor Study	Date:	3/8/24
Design Option	Recommended Option (Alt A2) - Phase 4	Prepared by:	KAH
Length:	1,400 feet		
Description:	Maintain 3 lane corridor; construct new Dechaux Extension roundabout (estimate excludes Dechaux Extension new road); extend shared use path (east side) from 43rd to new roundabout; matches to existing 3-lane section to the south until Phase 5 is constructed.		

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT
Paving					
39	Planing Bituminous Pavement	S.Y.	267	\$25.00	\$6,675.00
40	Hot Mix Asphalt	TON	1,280	\$145.00	\$185,600.00
41	Incidental Hot Mix Asphalt	TON	20	\$155.00	\$3,100.00
HMA Subtotal					\$195,375.00

Concrete					
42	Cement Conc. Driveway Entrance	S.Y.	20	\$100.00	\$2,000.00
43	Cement Conc. Sidewalk	S.Y.	1,245	\$65.00	\$80,925.00
44	Cement Conc. Curb Ramp Type ____	EA.	8	\$3,500.00	\$28,000.00
45	Cement Conc. Barrier Curb and Gutter	L.F.	1,400	\$40.00	\$56,000.00
46	Mountable Cement Conc. Traffic Curb	L.F.	0	\$30.00	\$0.00
47	Roundabout Truck Apron Cement Conc. C & G	L.F.	0	\$75.00	\$0.00
48	Roundabout, Central and Splitter Islands Complete	L.S.	1	\$2,000,000.00	\$2,000,000.00
49	Cement Concrete Roadway	C.Y.	0	\$450.00	\$0.00
Concrete Subtotal					\$2,166,925.00

Structures					
50	Structure Excavation Class A Incl. Haul	C.Y.	250	\$45.00	\$11,250.00
51	Gravel Backfill for Walls	TON	0	\$70.00	\$0.00
52	Retaining Wall > 8'	S.F.	6,750	\$235.00	\$1,586,250.00
53	Retaining Wall <= 8'	S.F.	0	\$100.00	\$0.00
54	Bridge Structure	S.F.	0	\$900.00	\$0.00
Structures Subtotal					\$1,597,500.00

TESC and Landscaping					
55	Temporary Water Pollution / Erosion Control	L.S.	1	\$84,400.00	\$84,400.00
56	Inlet Protection	EA.	16	\$110.00	\$1,760.00
57	Silt Fence	L.F.	3,000	\$7.00	\$21,000.00
58	Topsoil Type C	C.Y.	52	\$65.00	\$3,380.00
59	Sod Installation	S.Y.	0	\$35.00	\$0.00
60	Trees	EA.	0	\$600.00	\$0.00
61	Plant Selection and Estab. (various species)	S.Y.	623	\$40.00	\$24,920.00
62	Miscellaneous Improvements (Property Restoration)	L.S.	1	\$10,000.00	\$10,000.00
63	Irrigation System Complete	L.S.	1	\$22,000.00	\$22,000.00
64	Irrigation System Repair	F.A.	1	\$5,000.00	\$5,000.00
TESC and Landscaping Subtotal					\$172,460.00

Traffic					
65	Paint Line	L.F.	4,200	\$2.00	\$8,400.00
66	Plastic Bicycle Lane Symbol	EA.	0	\$550.00	\$0.00
67	Plastic Line	L.F.	0	\$5.00	\$0.00
68	Plastic Stop Line	L.F.	0	\$20.00	\$0.00
69	Plastic Yield Line Symbol	EA.	24	\$55.00	\$1,320.00
70	Plastic Crosswalk Line	S.F.	0	\$15.00	\$0.00
71	Plastic Traffic Arrow	EA.	0	\$400.00	\$0.00
72	Raised Pavement Marker, Type 1	HUND.	0	\$600.00	\$0.00
73	Raised Pavement Marker, Type 2	HUND.	0	\$1,000.00	\$0.00
74	Permanent Signing	EA.	14	\$400.00	\$5,600.00

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	60	40	---	9	---
---	1400	48	0.25	27	2.05
---	60	15	0.25	27	2.05

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	15	12	---	9	---
---	1400	8	---	9	---
8	---	---	---	---	---
---	1400	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
---	0	0	0.0	27	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	750	2	4.5	27	---
---	0	1	0	27	1.85
---	750	---	9	---	---
---	0	---	0	---	---
---	0	0	---	---	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1.5%	---	---	---	---	---
16	---	---	---	---	---
---	3000	---	---	---	---
---	1400	4	0.25	27	---
---	0	0	---	9	---
0	---	---	---	---	---
---	1400	4	---	9	---
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

EA/Day/Hr	Length (FT)	Width (FT)	Depth (FT)	DYCL	Tons/CY
---	4200	---	---	---	---
0	---	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
24	---	---	---	---	---
---	0	10	---	---	---
0	---	---	---	---	---
---	0	---	---	0.60	---
---	0	---	---	0.10	---
14	---	---	---	---	---

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:Meridian (SR 161) Corridor Study

Date:3/8/24

Design OptionRecommended Option (Alt A2) - Phase 4

Prepared by:KAH

Length:1,400 feet

Description: Maintain 3 lane corridor; construct new Dechaux Extension roundabout (estimate excludes Dechaux Extension new road); extend shared use path (east side) from 43rd to new roundabout; matches to existing 3-lane section to the south until Phase 5 is constructed.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT								
75	Beam Guardrail Type 31	L.F.	200	\$45.00	\$9,000.00	---	200	---	---	---	---	---	Guardrail at all fill walls and fill slopes
76	Beam Guardrail Terminal	EA.	1	\$4,000.00	\$4,000.00	1	---	---	---	---	---	---	
77	Beam Guardrail Anchor	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---	---	
78	Safety Handrail	L.F.	100	\$200.00	\$20,000.00	---	100	---	---	---	---	---	At all fill walls
79	Remove Existing Traffic Signal System	L.S.	0	\$75,000.00	\$0.00	---	---	---	---	---	---	---	
80	Foundation Potholing	EA.	0	\$1,000.00	\$0.00	0	---	---	---	---	---	---	
81	Traffic Signal System Complete	L.S.	0	\$400,000.00	\$0.00	---	---	---	---	---	---	---	
82	Pedestrian Hybrid Beacon System Complete	L.S.	0	\$250,000.00	\$0.00	---	---	---	---	---	---	---	
83	Interconnect System Complete	L.S.	0	\$25,000.00	\$0.00	---	---	---	---	---	---	---	
84	Illumination System Complete	L.S.	0	\$200,000.00	\$0.00	---	---	---	---	---	---	---	
85	Adjust Junction Box	EA.	0	\$800.00	\$0.00	0	---	---	---	---	---	---	
86	Street Lighting	EA.	8	\$7,500.00	\$60,000.00	8	---	---	---	---	---	---	
87	Temporary Traffic Control Devices	L.S.	1	\$50,000.00	\$50,000.00	---	---	---	---	---	---	---	One luminaire every 200 feet both sides of the road
88	Traffic Control Labor - Flagging	HOURL	1,600	\$75.00	\$120,000.00	1600	---	---	---	---	---	---	
89	Portable Sequential Arrow Sign	EA.	2	\$4,000.00	\$8,000.00	2	---	---	---	---	---	---	
90	Portable Changeable Message Sign	EA.	2	\$6,000.00	\$12,000.00	2	---	---	---	---	---	---	100
91	Operation of Portable Sequential Arrow Sign	DAY	100	\$1,000.00	\$100,000.00	100	---	---	---	---	---	---	
92	Operation of Portable Changeable Message Sign	DAY	200	\$1,000.00	\$200,000.00	200	---	---	---	---	---	---	
Traffic Subtotal					\$599,320.00								
Other Items						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY		
93	Utility Relocates	L.S.	1	\$20,000.00	\$20,000.00	---	---	---	---	---	---	---	Franchise, cost by others
94	Undergrounding Utilities	L.F.	0	\$400.00	\$0.00	---	0	---	---	---	---	---	
95	Monument Case and Cover	EA.	2	\$1,500.00	\$3,000.00	2	---	---	---	---	---	---	Placed at all intersections and pc's/pt's
96	Adjust Monument Case and Cover	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---	---	
97	Trimming and Cleanup	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---	---	
Other Items Subtotal					\$54,000.00								
SUBTOTAL					\$6,365,905.00								
CONTINGENCY					40%					\$2,546,370.00			
CONSTRUCTION SUBTOTAL					\$8,912,275.00								
DESIGN ENGINEERING					15%	(of Constr. Subtotal)				\$1,336,850.00			
CONSTRUCTION ENGINEERING					15%	(of Constr. Subtotal)				\$1,336,850.00			
PROJECT ADMINISTRATION					5%	(of Constr. Subtotal)				\$445,620.00			
ENGR. AND ADMIN. SUBTOTAL					\$3,119,320.00								
ENVIRONMENTAL ENGINEERING					2%	(of Constr. Subtotal)				\$178,250.00			
ENVIRONMENTAL MITIGATION					1%	(of Constr. Subtotal)				\$89,130.00			
ENVIRONMENTAL SUBTOTAL					\$267,380.00								
RIGHT-OF-WAY													
Commercial Property		S.F.	0	\$50.00	\$0.00								
Residential Property		S.F.	0	\$35.00	\$0.00								
Number of Individual Properties		EA.	0	\$10,000.00	\$0.00								
RIGHT-OF-WAY SUBTOTAL					\$0.00								
TOTAL PROJECT COST					\$12,298,975.00								

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project:	Meridian (SR 161) Corridor Study	Date:	3/8/24
Design Option	Recommended Option (Alt A2) - Phase 5	Prepared by:	KAH
Length:	2,600 feet		
Description:	Construct non-motorized bridge (east of existing bridge); construct motorized bridge (west of existing bridge); upgrade existing bridge to meet current seismic design criteria; extend 3-lane section south to Spencer; construct Spencer roundabout, matches 4-lane section.		

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT						
Preparation						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1	Mobilization (10% of remaining items)	L.S.	1	\$3,001,900.00	\$3,001,900.00	10.0%	---	---	---	---	---
2	Construction Surveying	L.S.	1	\$438,000.00	\$438,000.00	1.5%	---	---	---	---	1.5% of Construction Subtotal
3	Construction Site Signs	L.S.	1	\$3,000.00	\$3,000.00	---	---	---	---	---	10 signs at \$300/sign
4	Clearing and Grubbing	L.S.	1	\$60,000.00	\$60,000.00	---	---	---	---	---	Clearing and Grubbing for roadway widening beyond existing pavement plus an additi
5	Removal of Structures and Obstructions	L.S.	1	\$20,000.00	\$20,000.00	---	---	---	---	---	---
6	Removing Catch Basin	EA.	0	\$750.00	\$0.00	0	---	---	---	---	---
7	Removing Cement Conc. Flatwork	S.Y.	0	\$15.00	\$0.00	---	0	0	---	9	---
8	Removing Cement Conc. Curb and Gutter	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---
9	Removing Extruded Curb	L.F.	0	\$10.00	\$0.00	---	0	---	---	---	---
10	Removing Pavement Markings	L.S.	1	\$5,000.00	\$5,000.00	---	---	---	---	---	---
11	Removing Asphalt Conc. Pavement	S.Y.	1,445	\$20.00	\$28,900.00	---	2600	5	---	9	---
12	Removing Reinf. Cement Conc. Pavement	F.A.	0	\$5,000.00	\$0.00	---	---	---	---	---	---
Preparation Subtotal					\$3,556,800.00						
Grading						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
13	Roadway Excavation Incl. Haul	C.Y.	5,778	\$45.00	\$260,010.00	---	2600	20	3	27	---
14	Unsuitable Foundation Excavation Incl. Haul	C.Y.	578	\$65.00	\$37,570.00	---	0	0	3	27	Assumes 10% of Item 13.
15	Ballast	TON	0	\$50.00	\$0.00	---	0	0	0	27	1.95
16	Gravel Borrow Incl. Haul	TON	64,134	\$35.00	\$2,244,690.00	---	2600	40	9	27	1.85
17	Crushed Surfacing Base Course	TON	3,820	\$45.00	\$171,900.00	---	2600	32	0.67	27	1.85
18	Crushed Surfacing Top Course	TON	706	\$55.00	\$38,830.00	---	2600	12	0.33	27	1.85
19	Controlled Density Fill (CDF)	C.Y.	0	\$90.00	\$0.00	---	0	0	0	27	---
20	Structure Excavation for Utility Vault or J-Box	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
21	Utility Trenching	C.Y.	0	\$55.00	\$0.00	---	0	0	0	27	---
22	Sand Bedding for Utility Trenches	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.55
23	Foundation Material for Utility Vault or J-Box	TON	0	\$30.00	\$0.00	---	0	0	0	27	1.85
24	Shoring or Extra Excavation Class B	S.F.	0	\$3.00	\$0.00	---	0	---	4	---	Total Pipe length * 4 feet
Grading Subtotal					\$2,753,000.00						
Storm Drainage						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
25	Adjust Catch Basin	EA.	0	\$1,200.00	\$0.00	0	---	---	---	---	---
26	Area Inlet	EA.	0	\$1,600.00	\$0.00	0	---	---	---	---	---
27	Catch Basin Type 1	EA.	13	\$2,800.00	\$36,400.00	13	---	---	---	---	cb every 200 ' both sides/2
28	Catch Basin Type 1L	EA.	7	\$3,000.00	\$21,000.00	7	---	---	---	---	cb every 200 ' both sides/4
29	Catch Basin Type 2, 48 In. Diam.	EA.	7	\$6,000.00	\$42,000.00	7	---	---	---	---	cb every 200 ' both sides/4
30	Catch Basin Type 2, w/ Oil-Water Separator	EA.	1	\$9,000.00	\$9,000.00	1	---	---	---	---	---
31	Underdrain Pipe 6 In. Diam.	L.F.	0	\$30.00	\$0.00	---	0	---	---	---	---
32	Storm Sewer Pipe 8 In. Diam.	L.F.	0	\$40.00	\$0.00	---	0	---	---	---	---
33	Storm Sewer Pipe 12 In. Diam.	L.F.	520	\$100.00	\$52,000.00	---	520	---	---	---	Assume 12" pipe for all crossings
34	Storm Sewer Pipe 18 In. Diam.	L.F.	1,300	\$140.00	\$182,000.00	---	1300	---	---	---	Assume 18" trunkline half of length of road
35	Storm Sewer Pipe 24 In. Diam.	L.F.	1,300	\$180.00	\$234,000.00	---	1300	---	---	---	Assume 24" trunkline half of length of road
36	Connect to Existing Drainage Structure	EA.	1	\$1,200.00	\$1,200.00	1	---	---	---	---	---
37	Culvert / Stream Crossing (approx. 72 In. Diam.)	L.F.	0	\$1,000.00	\$0.00	---	0	---	---	---	---
38	Stormwater Detention / Water Quality Facility	L.S.	1	\$600,000.00	\$600,000.00	---	---	---	---	---	---
Storm Drainage Subtotal					\$1,177,600.00						

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project: Meridian (SR 161) Corridor Study Date: 3/8/24
Design Option Recommended Option (Alt A2) - Phase 5 Prepared by: KAH

Length: 2,600 feet
Description: Construct non-motorized bridge (east of existing bridge); construct motorized bridge (west of existing bridge); upgrade existing bridge to meet current seismic design criteria; extend 3-lane section south to Spencer; construct Spencer roundabout, matches 4-lane section.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT
Paving					
39	Planing Bituminous Pavement	S.Y.	267	\$25.00	\$6,675.00
40	Hot Mix Asphalt	TON	2,370	\$145.00	\$343,650.00
41	Incidental Hot Mix Asphalt	TON	2,660	\$155.00	\$412,300.00
HMA Subtotal					\$762,625.00

Concrete					
42	Cement Conc. Driveway Entrance	S.Y.	0	\$100.00	\$0.00
43	Cement Conc. Sidewalk	S.Y.	2,312	\$65.00	\$150,280.00
44	Cement Conc. Curb Ramp Type ____	EA.	8	\$3,500.00	\$28,000.00
45	Cement Conc. Barrier Curb and Gutter	L.F.	2,600	\$40.00	\$104,000.00
46	Mountable Cement Conc. Traffic Curb	L.F.	0	\$30.00	\$0.00
47	Roundabout Truck Apron Cement Conc. C & G	L.F.	0	\$75.00	\$0.00
48	Roundabout, Central and Splitter Islands Complete	L.S.	1	\$1,500,000.00	\$1,500,000.00
49	Cement Concrete Roadway	C.Y.	0	\$450.00	\$0.00
Concrete Subtotal					\$1,782,280.00

Structures					
50	Structure Excavation Class A Incl. Haul	C.Y.	978	\$45.00	\$44,010.00
51	Gravel Backfill for Walls	TON	15,380	\$70.00	\$1,076,600.00
52	Retaining Wall > 8'	S.F.	37,400	\$235.00	\$8,789,000.00
53	Retaining Wall <= 8'	S.F.	10,500	\$100.00	\$1,050,000.00
54	Bridge Structure	S.F.	12,000	\$900.00	\$10,800,000.00
Structures Subtotal					\$21,759,610.00

TESC and Landscaping					
55	Temporary Water Pollution / Erosion Control	L.S.	1	\$438,300.00	\$438,300.00
56	Inlet Protection	EA.	28	\$110.00	\$3,080.00
57	Silt Fence	L.F.	3,000	\$7.00	\$21,000.00
58	Topsoil Type C	C.Y.	97	\$65.00	\$6,305.00
59	Sod Installation	S.Y.	0	\$35.00	\$0.00
60	Trees	EA.	0	\$600.00	\$0.00
61	Plant Selection and Estab. (various species)	S.Y.	1,156	\$40.00	\$46,240.00
62	Miscellaneous Improvements (Property Restoration)	L.S.	1	\$10,000.00	\$10,000.00
63	Irrigation System Complete	L.S.	1	\$42,000.00	\$42,000.00
64	Irrigation System Repair	F.A.	1	\$5,000.00	\$5,000.00
TESC and Landscaping Subtotal					\$571,925.00

Traffic					
65	Paint Line	L.F.	4,200	\$2.00	\$8,400.00
66	Plastic Bicycle Lane Symbol	EA.	0	\$550.00	\$0.00
67	Plastic Line	L.F.	0	\$5.00	\$0.00
68	Plastic Stop Line	L.F.	0	\$20.00	\$0.00
69	Plastic Yield Line Symbol	EA.	24	\$55.00	\$1,320.00
70	Plastic Crosswalk Line	S.F.	0	\$15.00	\$0.00
71	Plastic Traffic Arrow	EA.	0	\$400.00	\$0.00
72	Raised Pavement Marker, Type 1	HUND.	0	\$600.00	\$0.00
73	Raised Pavement Marker, Type 2	HUND.	0	\$1,000.00	\$0.00
74	Permanent Signing	EA.	26	\$400.00	\$10,400.00

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	60	40	---	9	---
---	2600	48	0.25	27	2.05
---	2600	32	0.42	27	2.05

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	0	12	---	9	---
---	2600	8	---	9	---
8	---	---	---	---	---
---	2600	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
---	0	0	0.0	27	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
---	2,200	2	6	27	---
---	2,200	6	17	27	1.85
---	2,200	---	17	---	---
---	1,050	---	10	---	---
---	250	48	---	---	---

EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY
1.5%	---	---	---	---	---
28	---	---	---	---	---
---	3000	---	---	---	---
---	2600	4	0.25	27	---
---	0	0	---	9	---
0	---	---	---	---	---
---	2600	4	---	9	---
---	---	---	---	---	---
---	---	---	---	---	---
---	---	---	---	---	---

EA/Day/Hr	Length (FT)	Width (FT)	Depth (FT)	DYCL	Tons/CY
---	4200	---	---	---	---
0	---	---	---	---	---
---	0	---	---	---	---
---	0	---	---	---	---
24	---	---	---	---	---
---	0	10	---	---	---
0	---	---	---	---	---
---	0	---	---	0.60	---
---	0	---	---	0.10	---
26	---	---	---	---	---

CITY OF EDGEWOOD
Planning Level Cost Estimate



Project: Meridian (SR 161) Corridor Study

Date: 3/8/24

Design Option Recommended Option (Alt A2) - Phase 5

Prepared by: KAH

Length: 2,600 feet

Description: Construct non-motorized bridge (east of existing bridge); construct motorized bridge (west of existing bridge); upgrade existing bridge to meet current seismic design criteria; extend 3-lane section south to Spencer; construct Spencer roundabout, matches 4-lane section.

ITEM NO.	ITEM	UNIT	PLAN QTY	UNIT PRICE	AMOUNT							
75	Beam Guardrail Type 31	L.F.	0	\$45.00	\$0.00	---	0	---	---	---	---	Guardrail at all fill walls and fill slopes
76	Beam Guardrail Terminal	EA.	1	\$4,000.00	\$4,000.00	1	---	---	---	---	---	
77	Beam Guardrail Anchor	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---	
78	Safety Handrail	L.F.	100	\$200.00	\$20,000.00	---	100	---	---	---	---	At all fill walls
79	Remove Existing Traffic Signal System	L.S.	0	\$75,000.00	\$0.00	---	---	---	---	---	---	
80	Foundation Potholing	EA.	0	\$1,000.00	\$0.00	0	---	---	---	---	---	
81	Traffic Signal System Complete	L.S.	0	\$400,000.00	\$0.00	---	---	---	---	---	---	
82	Pedestrian Hybrid Beacon System Complete	L.S.	0	\$250,000.00	\$0.00	---	---	---	---	---	---	
83	Interconnect System Complete	L.S.	0	\$25,000.00	\$0.00	---	---	---	---	---	---	
84	Illumination System Complete	L.S.	0	\$200,000.00	\$0.00	---	---	---	---	---	---	
85	Adjust Junction Box	EA.	0	\$800.00	\$0.00	0	---	---	---	---	---	
86	Street Lighting	EA.	8	\$7,500.00	\$60,000.00	8	---	---	---	---	---	One luminaire every 200 feet both sides of the road
87	Temporary Traffic Control Devices	L.S.	1	\$50,000.00	\$50,000.00	---	---	---	---	---	---	
88	Traffic Control Labor - Flagging	HOURL	1,920	\$75.00	\$144,000.00	1920	---	---	---	---	---	120 working days, 8 hours a day, 2 flaggers needed.
89	Portable Sequential Arrow Sign	EA.	2	\$4,000.00	\$8,000.00	2	---	---	---	---	---	120
90	Portable Changeable Message Sign	EA.	2	\$6,000.00	\$12,000.00	2	---	---	---	---	---	
91	Operation of Portable Sequential Arrow Sign	DAY	120	\$1,000.00	\$120,000.00	120	---	---	---	---	---	Assume use for half the number of working days
92	Operation of Portable Changeable Message Sign	DAY	240	\$1,000.00	\$240,000.00	240	---	---	---	---	---	Assume use for the number of working days
Traffic Subtotal					\$679,120.00							

Other Items						EACH	Length (FT)	Width (FT)	Depth (FT)	Conversion	Tons/CY	
93	Utility Relocates	L.S.	1	\$20,000.00	\$20,000.00	---	---	---	---	---	---	Franchise, cost by others
94	Undergrounding Utilities	L.F.	0	\$400.00	\$0.00	---	0	---	---	---	---	
95	Monument Case and Cover	EA.	2	\$1,500.00	\$3,000.00	2	---	---	---	---	---	Placed at all intersections and pc's/pt's
96	Adjust Monument Case and Cover	EA.	1	\$1,000.00	\$1,000.00	1	---	---	---	---	---	
97	Trimming and Cleanup	L.S.	1	\$30,000.00	\$30,000.00	---	---	---	---	---	---	
Other Items Subtotal					\$54,000.00							

SUBTOTAL				\$33,096,960.00
CONTINGENCY	40%			\$13,238,790.00
CONSTRUCTION SUBTOTAL				\$46,335,750.00
DESIGN ENGINEERING	15%	(of Constr. Subtotal)		\$6,950,370.00
CONSTRUCTION ENGINEERING	15%	(of Constr. Subtotal)		\$6,950,370.00
PROJECT ADMINISTRATION	5%	(of Constr. Subtotal)		\$2,316,790.00
ENGR. AND ADMIN. SUBTOTAL				\$16,217,530.00
ENVIRONMENTAL ENGINEERING	2%	(of Constr. Subtotal)		\$926,720.00
ENVIRONMENTAL MITIGATION	1%	(of Constr. Subtotal)		\$463,360.00
ENVIRONMENTAL SUBTOTAL				\$1,390,080.00
RIGHT-OF-WAY				
Commercial Property	S.F.	0	\$50.00	\$0.00
Residential Property	S.F.	0	\$35.00	\$0.00
Number of Individual Properties	EA.	0	\$10,000.00	\$0.00
RIGHT-OF-WAY SUBTOTAL				\$0.00
TOTAL PROJECT COST				\$63,943,360.00



City Of Edgewood Council Agenda Summary Sheet

Subject: Encampment Policy	Agenda Item #: 2.C
	For Agenda of: 8/20/2024
	Prepared by: Maili Barber
Attachments (list): 1. Encampment Policy Resolution 24-0XXX 2. Edgewood Encampment Disposal Policy 7.16.24	
Approval of Materials: Maili Barber Rachel Pitzel, Assistant City Administrator Dave Olson 8/12/2024 8/12/2024	Expenditure Required:
	Amount Budgeted:
	Timeline: 08/20/2024 SS Discussion 08/27/2024 RCM Action Under Consent Agenda

Summary Statement:

The City of Edgewood is facing a growing challenge with unauthorized encampments on properties it owns, controls, or has legal responsibility for. These encampments pose significant threats to public safety and health, including issues related to human and solid waste, exposure to communicable diseases, and increased criminal activity. The encampments also interfere with the public's ability to use City properties, facilities, and rights-of-way for their intended purposes. To address these issues, the City is proposing an administrative policy aimed at the consistent and lawful removal of unauthorized encampments. This policy will guide City Departments in managing these encampments, ensuring that public health and safety are maintained while providing guidance for the temporary storage of personal property in compliance with local, state, and federal laws.

The proposed policy includes specific definitions and procedures for identifying, prioritizing, and removing encampments, particularly those that present immediate hazards or obstructions. It also outlines the responsibilities of Designated City Personnel (DCP) in coordinating with law enforcement and outreach providers to offer services to individuals experiencing homelessness. The policy emphasizes the importance of humane and respectful treatment of personal property and establishes guidelines for the temporary storage and retrieval of such property. By adopting this policy, the City aims to balance the need for public safety and property use with the provision of assistance and services to vulnerable populations, reflecting a commitment to both community well-being and lawful compliance.

Item History:

Recommended Action:

Hold a discussion and provide staff guidance regarding Encampment Policy

Fiscal Note/Consideration:

RESOLUTION NO. 24-0XXX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EDGEWOOD, PIERCE COUNTY, WASHINGTON, ADOPTING THE CITY OF EDGEWOOD ADMINISTRATIVE POLICY REGARDING UNAUTHORIZED ENCAMPMENTS ON CITY PROPERTIES.

WHEREAS, the City of Edgewood owns and operates various real properties including parks, public facilities, and right-of-way; and

WHEREAS, the City of Edgewood finds that unauthorized encampments on properties it owns, controls, or is legally responsible for pose a threat to public safety and health. Additionally, these encampments hinder the public's ability to utilize City properties, facilities, and rights-of-way for their intended purposes; and

WHEREAS, the purpose of the Policy is to establish a uniform approach for City Departments to address the removal of unauthorized encampments from City property and, where applicable, temporarily store personal property in a manner consistent with local, state, and federal law; and

WHEREAS, the City of Edgewood, like many communities around the nation, is expecting a growing number of unauthorized encampments, that pose safety and health risks for people living in and around them, including human and solid waste, exposure to communicable diseases, and increased criminal activity; and

WHEREAS, the City recognizes the need to provide services and help individuals experiencing homelessness find housing alternatives to unsafe, unauthorized encampment; and

WHEREAS, the City Council finds it necessary to adopt this Policy to ensure a consistent, safe, and lawful approach to addressing unauthorized encampments on City properties; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EDGEWOOD, WASHINGTON, HEREBY RESOLVES AS FOLLOWS:

Section 1. Adoption. The City Council adopts the attached City of Edgewood Administrative Policy Regarding Unauthorized Encampments on City Properties as presented.

Section 2. Effective Date. This resolution will take effect immediately upon passage by the City Council.

ADOPTED THIS XTH DAY OF XXXXXXXXXXXX, 2024

Dave Olson, Mayor

ATTEST:

Jill Schwerzler-Herrera, CMC
City Clerk

Exhibit A
(Insert Policy)

City of Edgewood Administrative Policy Regarding Unauthorized Encampments on City Properties

1. Statement of Concern

The City of Edgewood owns and operates various real properties. The City of Edgewood finds that unauthorized encampments on City properties it owns, controls or for which it has legal responsibility are a threat to the public safety and health and interfere with the public's ability to use City properties, facilities, and rights-of-way for their intended purposes.

2. Purpose

The purpose of the "City of Edgewood Administrative Policy Regarding Unauthorized Encampments on City Properties" (Policy) is to establish a uniform policy for City Departments to address the removal of unauthorized encampments from City property and, where applicable, temporarily store personal property in a manner consistent with local, state and federal laws. City department policies and procedures that are consistent with this Policy and aid in its implementation remain in effect. Nothing herein is intended or should be construed to create a legal obligation or private right of action.

3. Background

The City of Edgewood like many communities around the nation is experiencing a growing number of unauthorized encampments. Such encampments pose safety and health risks for people living in and around them, including human and solid waste, exposure to communicable diseases, and increased criminal activity. They also may substantially impair the intended use of City facilities. At the same time, individuals experiencing homelessness need services and help to find housing alternatives to unsafe, unauthorized encampments.

4. Definitions

- 4.1 "City" means the City of Edgewood, including its officers, employees, agents, or any contractors and sub-contractors.
- 4.2 "Emphasis Area" means an area or location designated by the City where unauthorized encampments have become a repeated or consistent problem based on the totality of the circumstances.
- 4.3 "Encampment" means one or more tents, lean-tos, structures, tarpaulins, pallets, or makeshift structures used for purposes of habitation located in an identifiable area within the City. Habitation is evidenced by the presence of bedding materials, campfires, cooking materials, storage of clothing and other personal belonging or items, gathered together in a manner where it appears to a reasonable person that the site is being used for habitation purposes. Encampments do not include sites

that a reasonable person would conclude are abandoned as that term is defined below, that consist solely of solid waste as that term is defined below, or that are permitted on City Park property for recreational use.

- 4.4 "Immediate hazard" means an unauthorized encampment where individuals occupying the encampment are at risk of serious injury or death beyond that caused by increased exposure to the elements, or their presence creates a risk of serious injury or death to others, or the encampment is causing imminent compromise to the structural and environmental integrity of the surrounding location. Immediate hazard encampments include, but are not limited to, encampments at roadway shoulders and off-ramps, areas exposed to moving vehicles, areas that can only be accessed by crossing driving lanes outside of a legal crosswalk, landslide or flood prone areas, areas at high risk of fire, areas along or on top of river levees, and other critical areas where the lack of sanitation facilities results in human solid or liquid waste being discharged in a manner that threatens public health.
- 4.5 "Obstruction" means people, tents, personal property, solid waste or other objects related to an encampment that: 1) are in a City park or on a public sidewalk, 2) interfere with the pedestrian or purposes of public rights-of-way, or 3) interfere with areas that are necessary for or essential to the intended use of a public property or facility.
- 4.6 "Personal Property" means an item that is readily identifiable as belonging to a person, has apparent utility in its present condition, and is not hazardous. The Designated City Personnel will determine whether an item is personal property, and in cases where there is reasonable doubt about the status of an item, the staff member should treat the item as personal property.

-Examples of personal property include, but are not limited to, identification documents, personal papers, legal documents, tents, fully intact bicycles, radios and other electronic devices, fully intact eyeglasses, prescription medications, photographs, jewelry, and medical devices such as crutches or wheelchairs. Weapons may be considered personal property and will be handled in accordance with Section 10.3 below. For purposes of this Policy, weapons include any firearm, explosive, or other item capable of producing bodily harm.

-Personal property does not include items that are considered solid waste, as that term is defined below.

-"Readily identifiable" means the item can be identified as personal property by sight, without danger or threat of safety to Designated City Personnel, defined below.

- 4.7 "Outreach" means a provider with the competency to engage individuals experiencing homelessness.

Commented [MB1]: This doesn't make sense to me. The way it reads "Encampments" are legal on sites that consist solely of solid waste? So dumps, abandoned vehicles, on a pile of wood pallets, etc. Unless there is a reason I am unaware of, I think we should delete.

Keep in mind the definition of "solid waste": "Solid waste" or "wastes" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

Commented [JY2R1]: I believe what this is saying is that a site consisting of only solid waste is not considered an Encampment. If a site fits the definition of an Encampment then we have to follow our policy... three day notice.. Etc... If we come upon a site that is only solid waste and has no signs of habitation we want the ability to remove it/clean it up immediately and not have to follow the encampment policy. I believe that is why this is in here.

4.8 “Designated City Personnel” (DCP) means City employees designated by Department Directors and trained to undertake inspections, initiate, and oversee removal of encampments and storage of personal property, and ensure City, including sub-contractors’, compliance with this Policy and any applicable laws. DCP may assign administrative tasks to others when practicable.

4.9 “Hazardous item” means an item, including personal property, which appears to be dangerous or involves risk of harm to the health or safety of humans, animals, or the environment, either in its present form or as stored. Hazardous items include, but are not limited to, items contaminated with bacteria, viruses, parasites, and fungi; saturated items; pollutants; poisons; flammable or explosive material; broken glass; metal staples or other sharp objects; solvents or other corrosive agents; human waste; illicit drugs; and drug paraphernalia.

4.10 “Solid waste” has the same meaning as in RCW 70A.205.015 (24) including, but not limited to, the following: bagged or loose household garbage, containers of household liquids or hazardous wastes, decaying furniture, furniture parts, machinery or appliances, household fixtures, tires, batteries, mattresses, construction debris, rotting or scrap lumber, paper and/or cardboard, rubber debris, scrap metal, vehicle parts, hardware, yard debris as defined in RCW 70A.205.015(30) cut brush or wood, dead or decaying plant materials, animal carcasses or animal waste, junk vehicles, or derelict vessels.

4.11 “Abandoned personal property” means personal property which it appears, based on the totality of the circumstances, the owner intentionally relinquished the right to possess by action, verbal and/or written disclaimer, lapse of time, or non-use of the same.

Commented [MB3]: This RCW was repealed. I have added the new relevant one.

5. Removing Obstruction and Immediate Hazard Encampments

- 5.1 DCP may remove sites which in their discretion meet the definitions of an obstruction or immediate hazard without prior notice to inhabitants. The provisions of Sections 7-10 of this Policy do not apply to removing obstructions and immediate hazard encampments. While the provisions of this section apply to both obstructions and immediate hazard encampments, for ease of reference in this section, they are hereinafter referred to collectively as “obstruction.”
- 5.2 If an obstruction site is believed to be inhabited, law enforcement and outreach personnel must be contacted and law enforcement must be present for the duration of the removal efforts, or until law enforcement and DCP determine that their presence is no longer necessary. DCP will use their best efforts to remove an obstruction within 72 hours from the date of inspection. If they do not commence removal within 72 hours, they should follow the provisions of Sections 7-10.
- 5.3 DCP will provide written and/or oral notice to inhabitants that they intend to immediately remove the obstruction.
- 5.4 DCP must post the notice in Section 11, and any personal property must be removed, stored and recovered as provided for in Sections 12 and 13.
- 5.5 DCP may immediately remove and dispose of hazardous items and solid waste.

- 5.6 DCP should document obstructions and immediate hazards and to whom the oral and/or written notices were made. Photographic documentation is recommended.

6. Encampment Inspection and Prioritization

- 6.1 DCP should prioritize encampments for removal after inspection of encampment locations. Where an inspection requires DCP to walk the area and potentially make contact with inhabitants of the encampment, law enforcement should be present for the inspection.
- 6.2 DCP must determine ownership of the real property. If the encampment is entirely on City property, the encampment may proceed consistent with this Policy. If the encampment is entirely on private property, the process for abating public nuisances on private property should be followed. (See Section 15). If the encampment is on properties owned by the City and others, DCP should notify the other owners and seek their collaboration prior to taking further action.
- 6.3 The following criteria, in no particular order, may be considered when prioritizing encampments for removal: (1) objective perils, such as proximity to moving vehicles and steep slopes; (2) criminal activity; (3) quantities of solid waste; (4) other active health hazards to occupants or the surrounding neighborhood; (5) imminent work scheduled at the site for which the encampment will pose an obstruction; (6) size of the encampment; (7) damage to environmentally critical areas; (8) the proximity of homeless individuals to uses of special concern, including schools or facilities for the elderly; and (9) complaints received. When prioritizing encampments for removal, consideration should be given to input from Edgewood Police Deputies. DCP may reprioritize removal at any time, including, but not limited to, because new encampments have been identified or new information about an encampment's condition becomes known. Nothing in this section requires DCP to remove camps in order of priority if cost, difficulty in removal, or other considerations dictate otherwise.

7. Notification of Removal and Storage of Personal Property.

- 7.1 If DCP believe inhabitants are present in the encampment, law enforcement must be contacted and present for the posting of removal notices. DCP must post notices at the encampment no fewer than 72 hours prior to an encampment removal. The notice must contain the following: (1) the date and time the notice was posted; (2) the date and time that removal of the encampment is scheduled to commence; (3) a warning that hazardous items and solid waste will be disposed of immediately; (4) information on how personal property may be claimed by its owner; (5) a warning that failure to claim within 30 days may result in the destruction of said property, and (6) contact information for an outreach provider that may be able to provide services.
- 7.2 DCP should maintain and use a standard form notice and post notices in a manner reasonably calculated to be seen, preferably in multiple locations, and at encampment access points.

- 7.3 If possible, DCP should give oral notice to individuals present at the encampment as provided for in the posted notice.
- 7.4 If DCP do not commence the removal process within the date and time range provided in the notice, they must re-post notice of the encampment removal.
- 7.5 DCP will have the notice printed in a simple and legible font and English and in any other language that in their sole discretion they believe would further the purpose of the notice.
- 7.6 Nothing in this section prohibits DCP from posting notice that the removal of an encampment may occur over a period of several days, until completion, so long as removal operations commence within the time frame identified in the notice.
- 7.7 DCP should use their best efforts to document the number of shelters and the number of notices and locations posted at an encampment site. Photographic documentation is recommended.

8. Providing Alternative Shelter Options Before Removal of a Non-Obstructing or Immediate Hazard Encampment

- 8.1 Prior to removing a non-obstructing or immediate hazard encampment, the DCP or outreach provider must inform individuals in the encampment of services offered in the City or **County**.
- 8.2 The services may include housing programs, shelter programs with or without day programs, and other authorized programs. Nothing herein should be construed to require the City to provide alternatives to individuals who have been previously or are currently excluded from services or housing alternatives because of the individual's behavior.

Commented [JY4]: Due to limited City resources I've added or County to this line. It's more likely we'd be able to present someone with Pierce County run resources.

Commented [MB5R4]: This is a good addition.

9. Outreach for Encampment Removals

- 9.1 Subject to Section 5, if the site is inhabited, DCP must, to the extent possible, arrange for outreach efforts to come to the encampment site to offer services at least once between the time that notice of removal is posted and the scheduled removal date.
- 9.2 To the extent possible, and if the site is inhabited, DCP should arrange for the outreach provider to be present on the date commencement of removal activities are scheduled to begin to offer services and shelter alternatives.

10. Encampment Removal and Cleanup

- 10.1 If inhabitants are present in the encampment, DCP must contact law enforcement to be present for the duration of an encampment removal, or until law enforcement and DCP determine that their presence is no longer necessary.
- 10.2 If there are inhabitants, DCP should provide a final warning and reasonable opportunity to leave prior to commencing removal and cleanup. If an inhabitant refuses to leave, removal may proceed if it can be performed in a safe manner.
- 10.3 DCP (or the City's contractor) should take reasonable steps to separate personal property from material that is not personal property or is solid waste or hazardous, provided that separation can be accomplished without danger or threat of safety to DCP. If a firearm or explosive or an item appearing to be a firearm or explosive is found, DCP should document the item, but not handle it, and contact law enforcement personnel, who will determine if the item should be taken, stored, and disposed of consistent with their applicable policies. For all other weapons, DCP should exercise their own discretion to determine if the item should be handled.
- 10.4 DCP may remove tents and/or structures in the immediate vicinity of the encampment that appear to have been erected after the notice was posted.
- 10.5 DCP must store personal property as provided for in Section 12 and return or dispose of it as provided for in Section 13.
- 10.6 DCP may remove and dispose of all items which are not personal property, including, but not limited to, solid waste, hazardous items, and other like material. They may remove and dispose of items of personal property which may present a health and safety hazard, or are saturated in liquid, or contaminated by solid waste, filth or a potentially infectious agent.
- 10.7 If, during the removal process, an individual on site is protesting removal of a non-hazardous item, DCP may provide a reasonable opportunity for the individual to remove it during the removal phase. However, DCP should advise the individual that encampment removal will continue and that if the individual fails to remove the item before removal is complete, such item, if it is personal property, may be retrieved from storage, and they should offer the individual the contact information for recovering the item as provided for in Section 12.
- 10.8 DCP should thoroughly document their actions during the removal process, including to adequately corroborate disposal of personal property which is hazardous or contaminated. Photographic documentation is recommended.
- 10.9 Following clean up, DCP may take steps to prevent unauthorized use of the site in the future and should monitor the former encampment site to determine if unauthorized camping returns.

11. Post-Encampment Removal Notice

- 11.1 DCP will post a notice with the following at the site where an encampment has been removed and the site cleaned up: (1) the date the cleanup was performed; (2) whether personal property was stored by the City; (3) how any stored personal property may be claimed by its owner; (4) that property not claimed will be destroyed after 30 days, and (5) contact information for outreach workers who can assist individuals with services and shelter alternatives. Personnel should post the notice in a manner reasonably calculated to be seen, preferably in multiple locations, and at access points.

12. Storage of Personal Property Removed from Encampment

- 12.1 Unless a written waiver has been signed by the owner of personal property on a form approved by the City Attorney, DCP must store all personal property recovered from encampments, provided the City has no obligation to store personal property that is hazardous, saturated, or contaminated with solid waste as set forth in subsection 10.6.

- 12.2 DCP should maintain a record of personal property removed from an encampment that reasonably identifies the location of the encampment from which it was removed. They should keep each personal property item until the personal property is recovered by its owner, or the property is disposed of, or forfeited, as provided herein or by law.

- 12.3 DCP may dispose of personal property that is not recovered after 30 days from the date of removal from the encampment.

13. Recovering Stored Property

- 13.1 DCP will make arrangements to communicate with an individual claiming that their personal property was removed from an encampment, including to advise them about the process to recover weapons stored by law enforcement.
- 13.2 DCP need not require that the individual describe with particularity the personal property sought. Nor should they require a formal legal identification, such as a valid driver's license, as a condition of releasing the property. If there are no circumstances indicating a competing claim of ownership, DCP should release the personal property to the individual seeking its recovery. If a competing claim of ownership arises, they should not release the disputed property until the City Attorney has been consulted. DCP should keep a record of the name of the person to whom the property was released and the date of release, or, in the event the property was not recovered, the date of disposal. This section does not apply to firearms, weapons, medication or any other personal property that may require proof of ownership or identity before being released to the individual seeking recovery.

13.3 Storage of personal property should be at no cost to the individual.

14. Encampment Removal from an Emphasis Area

14.1 DCP may identify a specific area as an Emphasis Area and treat the unauthorized encampments within the area as an obstruction as provided in Section 5.

14.2 DCP may enforce an Emphasis Area under Section 5 only after they have posted signage designating it as an Emphasis Area. The signage should identify: (1) that trespassing is prohibited in the Emphasis Area; (2) that any material found in the Emphasis Area may be removed without further notice; and (3) how any stored personal property may be claimed by its owner.

14.3 If DCP designate an Emphasis Area, they should inspect and monitor the area on a regular basis. Additionally, they should consider environmental design improvements and site reclamation opportunities.

14.4 DCP should identify Emphasis Areas on the City's website.

15. Unauthorized Encampments on Private Property

This Policy applies to unauthorized encampments on City properties only. Unauthorized encampments on private property must be treated as public nuisances on private property subject to EMC Titles 7 and 8, or as hereafter amended.

16. Amendment.

This administrative Policy may be amended by the Mayor, who may consult with Police, Planning and Public Works, the City Attorney, and other appropriate Departments.



City Of Edgewood Council Agenda Summary Sheet

Subject: Electrical Right-of-Way (ROW) Contract	Agenda Item #: 2.D
	For Agenda of: 8/20/2024
	Prepared by: Chuck Hendricksen
Attachments (list): 1. Resolution 24-XXXX First Amendment to Transportation Systems Inc. On call 2. DRAFT FIRST AMENDMENT_Transportation Systems Electrician 3. Attachment A - Electrician On-Call Small Works Contract	
Approval of Materials: Chuck Hendricksen Rachel Pitzel, Assistant City Administrator 8/14/2024 Dave Olson 8/14/2024	Expenditure Required:
	Amount Budgeted:
	Timeline: 8/20/2024 Study Session Discussion 8/27/2024 RCM Under Consent Agenda

Summary Statement:

Public Works is asking for council's approval for the mayor to sign an extension of the Electrical Right of Way Contract through the end of the calendar year. Similar to the other on-call contracts, the council approved in June. This is a housekeeping item to maintain an electrical ROW contractor through the end of the year.

Item History:

Recommended Action:

Hold a discussion and provide staff guidance regarding Electrical Right-of-Way (ROW) Contract

Fiscal Note/Consideration:

RESOLUTION NO. 24-0XXX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EDGEWOOD, PIERCE COUNTY, WASHINGTON, AUTHORIZING THE MAYOR TO EXECUTE THE FIRST AMENDMENT TO THE CURRENT ON-CALL CONSULTANT SERVICES CONTRACT BETWEEN TRANSPORTATION SYSTEMS, INC., AND THE CITY OF EDGEWOOD.

WHEREAS, the City of Edgewood (“City”) and Transportation Systems, Inc. currently have a On Call Small Works Contract for the purposes of allowing the Consultant to perform on call citywide electrician services, as described therein, in an amount not to exceed \$300,000.00, over three years. The terms allowed for an option, exercisable by the City, of a one year renewal term.; and

WHEREAS, the City has recently hired new staff and a Director, who will need time to adjust to their new responsibilities and manage the competitive bidding processes, while also addressing the backlog resulting from the loss of key members of the City’s professional team; and

WHEREAS, the City has existing on-call contracts that meet all bidding requirements that are scheduled to sunset this coming August and determined extending them an additional year does not violate any state spending requirements; and

WHEREAS, the original contract contemplated options for a one-year extension, and since the City has still spent under the monetary threshold, extending the on-call contracts for an additional twelve months past the first one year extension is needed and in line with the original spirit of the contract; and

WHEREAS, the existing on-call contract listed in Exhibit A can be amended by agreement with the Consultant to extend the availability for one-year extensions, thus increasing the contract duration without exceeding the provided value;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EDGEWOOD, WASHINGTON, HEREBY RESOLVES AS FOLLOWS:

Section 1. Authorizing the Mayor to Execute First Amendment to the Transportation Systems, Inc. Contract. The Mayor is hereby authorized to execute the First Amendment to the On Call Small Works Contract between Transportation Systems, Inc. and the City of Edgewood dated August 12, 2020, as Exhibit A and incorporated herein by this reference.

Section 2. Effective Date. This resolution will take effect immediately upon passage by the City Council.

ADOPTED THIS 13th DAY OF AUGUST 2024

Dave Olson, Mayor

ATTEST:

Jill Schwerzler-Herrera, CMC
City Clerk

Exhibit A

First Amendment to the August 12, 2020, On Call Consultant Services Contract with
Transportation Systems, Inc.

**FIRST AMENDMENT TO THE
ON-CALL CONSULTANT SERVICES CONTRACT
BETWEEN THE CITY OF EDGEWOOD
AND TRANSPORTATION SYSTEMS, INC.**

Section I. Date and Parties.

This document ("First Amendment"), is dated the 1ST day of August, 2024, and is entered into by and between the CITY OF EDGEWOOD, a Washington municipal corporation ("City") and TRANSPORTATION SYSTEMS, INC. ("Consultant"). This First Amendment modifies the On Call Consultant Services Contract dated August 12, 2020, by and between the City and Consultant (the "Contract").

Section II. General Recitals.

A. The City and Consultant entered into the Contract for the purposes of allowing the Consultant to perform on-call citywide electrician services, as described therein, in an amount not to exceed \$300,000.00, over three years. The term allowed for an option, exercisable by the City, of a one year renewal term.

B. The City administratively exercised their option for a one year extension of the Aug 12, 2020 contract.

C. The current contract is set to expire on August 12, 2024. Due to the City losing critical members of its professional team and the resulting backlog of necessary work, an extension of this contract is required. Therefore, an amendment to the contractual term outlined in Section 12, Term and Termination of Contract, is necessary.

D. To support the City with continued on-call electrician services, the parties have now agreed to amend the Contract as set forth in this First Amendment.

E. The City of Edgewood Resolution No. 20-0514 and the On Call Small Works Contract dated August 12, 2020, by and between the City and the Consultant is attached as **Attachment A**.

Section III. Amendments to the Contract.

A. Section 12 Term and Termination of Contract. Section 12 of the original Contract is hereby amended and is to read as follows, with deletions indicated by strikethrough and additions indicated by underline.

Term and Termination of Contract. This Agreement shall be valid for a period of three (3) years from the date of mutual execution, with an option, exercisable by the City, of ~~a one (1) year~~ renewal term(s), or upon the Contractor completing \$300,000 worth of Work under this Contract, whichever occurs first. Further, this Contract may be terminated by the City at any time upon the

default of the Contractor or upon public convenience, in which Contractor shall be entitled to just and equitable compensation for any satisfactory work completed prior to the date of termination. Contractor shall not be entitled to any reallocation of cost, profit or overhead. Contractor shall not in any event be entitled to anticipated profit on work not performed because of such termination. Contractor shall use its best efforts to minimize the compensation payable under this Contract in the event of such termination. If the contract is terminated for default, Contractor shall not be entitled to receive any further payments under the Contract until all work called for has been fully performed. Any extra cost or damage to the City resulting from such default(s) shall be deducted from any money due or coming due to Contractor. Contractor shall bear any extra expenses incurred by the City in completing the work, including all increased costs for completing the work, and all damage sustained, or which may be sustained by the City by reason of such default.

Section IV. Other Terms Unchanged. This First Amendment is intended to modify the terms and conditions of the original Contract only insofar as such modifications are set forth in this Amendment; all other provisions shall remain unchanged and in full effect. In the case of any conflict between the terms of the Contract and First Amendment, the provisions of this First Amendment shall control.

DATED: This 1ST day of August, 2024.

CITY OF EDGEWOOD

CONSULTANT

By: _____

By: _____

Printed Name: _____

Its: Mayor, Dave Olson

Its: _____

Date: _____

Date: _____, 2024

ATTEST:

City Clerk, Jill Schwerzler-Herrera

APPROVED AS TO FORM:

City Attorney, Maili C. Barber

ATTACHMENT A

The City of Edgewood Resolution No. 20-0514 and the On Call Small Works Contract dated August 12, 2020, by and between the City and Transportation Systems, Inc.

RESOLUTION NO. 20-0514

**A RESOLUTION OF THE CITY COUNCIL OF THE
CITY OF EDGEWOOD, PIERCE COUNTY,
WASHINGTON, AWARDING THE CONTRACT FOR
THE ON-CALL CITYWIDE ELECTRICIAN
SERVICES TO TRANSPORTATION SYSTEMS INC.
IN AN AMOUNT NOT TO EXCEED \$300,000.00 OVER
THREE YEARS**

WHEREAS, the City of Edgewood ("City") does not employ a qualified electrician on staff and has a need for certain electrical work, such as for the City's flashing school zone beacons, as well as other tasks; and

WHEREAS, the City determined to contract for such electrical services; and

WHEREAS, the City utilized a competitive bidding process to obtain bids for a three year on-call electrical services contract; and

WHEREAS, four bids were received on July 24, 2020; and

WHEREAS, after opening the bids received, City staff determined that the lowest responsible bidder was Transportation Systems Inc. of Sumner, WA; and

WHEREAS, the City Public Works Director analyzed the bids and recommended that Transportation Systems Inc. be awarded the contract as the lowest responsible bidder; and

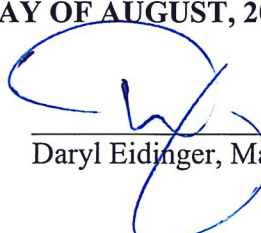
WHEREAS, the City Council considered the recommendation of the Public Works Director during its regular Council meeting of August 11, 2020, and determined that the contract should be awarded to Transportation Systems Inc.;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EDGEWOOD, WASHINGTON, HEREBY RESOLVES AS FOLLOWS:

Section 1. Awarding On-Call Citywide Electrician Services Contract. The City Council awards the On-Call Citywide Electrician Services contract to Transportation Systems Inc. and authorizes the Mayor to execute the contract between the City of Edgewood and Transportation Systems Inc. in an amount not to exceed \$300,000.00 over three years, which is attached hereto as Exhibit A.

Section 2. Effective Date. This resolution will take effect immediately upon passage by the City Council.

ADOPTED THIS 11TH DAY OF AUGUST, 2020



Daryl Eidinger, Mayor

CITY OF EDGEWOOD

By: _____

Date: 8/12/2020

The City of Edgewood
2224 104th Avenue E
Edgewood, WA 98372

APPROVED AS TO FORM:



Ann Marie J. Soto, City Attorney

CHECK FOR ATTACHED NOTARY SIGNATURE

____ Individual (Form P-1)
____ Corporation (Form P-2)

ATTEST:

A handwritten signature in blue ink, reading "Rachel Pitzel", is written over a horizontal line.

Rachel Pitzel, CMC
City Clerk

Exhibit A
Agreement and Bond Forms

ON CALL SMALL WORKS CONTRACT

1. **Contract and Parties.** This Public Works Contract-Small Works ("Contract") is between the CITY OF EDGEWOOD, Pierce County, Washington ("City"), a Washington municipal corporation and Transportation Systems, INC ("Contractor"), a corporation organized under the laws of the State of Washington, whose address is 6917 166th Ave E Sumner WA 98390. The City and Contractor are each a "Party" and together the "Parties" to the Contract. The Parties agree as follows.
2. **Project.** The Parties enter into this Contract for purposes of Contractor providing the City with equipment, materials and performing work for the City ("the Project"), generally described as:

ON CALL ELECTRICIAN SERVICES, including the installation, operation and maintenance of school zone beacons, pedestrian crossing warning beacons, radar speed limit signs, and similar roadside appurtenances on public roadways throughout the City. All work must comply with the National Electrical Code, National Electrical Safety Code and other standards approved by the American National Standards Institute.
3. **Effective date.** This Contract becomes effective and binding upon the Parties, including each Party's heirs, successors, and assigns, immediately upon execution of this contract by both parties.
4. **Notices to Parties.** Contractor agrees to accept notices under this Contract via email. It is the responsibility of Contractor to notify the City in writing if any of the contact information appearing below should change. Any notices required shall be in writing and delivered to the following addresses. If notice by email, a hard copy shall be delivered or mailed the same date as email.

CITY:

CITY OF EDGEWOOD
2224 104th Ave E
Edgewood, WA 98372-1513
Contact: Rachel Pitzel
Phone: (253) 952-3299

CONTRACTOR:

Transportation Systems INC.
Address: 6917 166th AVE E
SUMNER WA 98390
Contact: Bryson Huie
Phone: 253 750-0284

Tax ID #: 26-0907314

5. **Notice to Proceed.** Contractor will commence work on the date specified in each Work or Task Order issued by the City and shall complete said work within the time frame provided by each Work or Task Order.

6. **Obligations of Contractor.** The following terms and conditions apply to this Contract:

A. In general.

- (1) Responsible for all labor and work. Contractor shall be solely responsible for furnishing all labor and performance of all work necessary to complete the Project as required.
- (2) Responsible for furnishing all materials and equipment. Contractor shall furnish all materials and equipment necessary to complete the Project, except for any materials expressly agreed in writing to be provided by the City.
- (3) Documents incorporated by reference. All terms and specifications contained in any Request for Bids that was issued by the City as part of determining the awarding of this Contract are hereby incorporated by reference and must be complied with by Contractor, unless one or more of such terms and specifications are expressly amended or waived in writing by the City. The contract documents that the contractor shall comply with are: (1) this contract (2) the City's Construction Standards; (3) Contractor's proposal; (4) the solicitation for bids.
- (4) Laws and regulations to be followed. Contractor, its employees, agents, and subcontractors, shall at all times fully comply with all applicable laws, regulations, and administrative rulings in performing work for the Project.
- (5) Work Hours. Contractor shall not work on weekends. On Mondays through Fridays, Contractor shall not start work before 7:00 AM, and shall not work after 6:00 PM.
- (6) Conditions of Work. By submitting a bid, Contractor represents and warrants to the City that Contractor has fully informed itself of all conditions relating to the work involved for completing the Project. In prosecuting the work, Contractor shall employ such methods or means as will not interfere with or interrupt the work of the City or its agents, employees or contractors. Ingress/egress shall not be obstructed into the police department/council chambers.
- (7) Contractor's Responsibility. Contractor will prosecute the work in accordance with instructions, descriptions and/or plans and specifications provided by the City. Contractor shall carry on the work at its own risk until the same is fully completed and accepted, and shall, in case of any accident, destruction or injury to the work and/or materials before its final completion and acceptance, repair or replace forthwith the work and/or materials so injured, damaged or destroyed, at his/her own expense and to the satisfaction of the City. When materials and equipment are

furnished by others for installation or erection by Contractor, Contractor shall receive, unload, store and handle same at site and become responsible therefore as though such materials and/or equipment were being furnished by Contractor. Contractor shall procure all permits (unless permits are secured or waived by the City) and licenses, pay all charges, fees and taxes, and give all notices necessary and incidental to the due and lawful prosecution of the work. Contractor shall be responsible for preparing working drawings and shall submit them to the City for approval prior to commencement of work. For purposes of this Contract, working drawings shall mean, shop drawings, shop plans, erection plans, false-work plans, framework plans, cofferdam, cribbing and shoring plans, or any other supplementary plans or similar data, including a schedule of submittal dates for working drawings where specified, which Contractor will rely on for purposes of conducting the work for the Project.

- (8) Contractor Clean-Up. Prior to physical completion, all debris resulting from Contractor's work, delivery or installation of equipment shall be disposed of entirely by Contractor in an efficient and expeditious manner as required and directed by the City.
- (9) Safety. Contractor and its subcontractors shall take all safety precautions and furnish and install all guards necessary for the prevention of accidents, and shall comply with all laws and regulations with regard to the prosecution of the work. Contractor agrees to furnish Material Safety Data Sheets (Form OSHA-20) applicable for hazardous or potentially hazardous products. Contractor agrees to comply with the conditions of the Washington Industrial Safety and Health Act of 1970, and standards and regulations issued thereunder, and certify that all items furnished and purchased will conform to and comply with said standards and regulations. Contractor further agrees to indemnify and hold harmless the City from damages assessed against the City because of Contractor's failure to comply with the Acts and the standards issued thereunder and for the failure of the items furnished under this order to so comply.

B. Work Performance.

- (10) Prevailing wages. Contractor shall pay the then current prevailing wages, as that term is defined under the laws of the State of Washington, for all work performed on this Project by Contractor and by Contractor's employees, agents and subcontractors. Contractor is fully responsible for prevailing wage compliance.

For reference only, and without relieving any Contractor responsibility, the City notes the State of Washington prevailing wage rates for public works projects located in Pierce County may be found at the following website address of the Department of Labor and Industries: <https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx>. Upon request, the City will mail a hard copy of the applicable prevailing wages for this Project. Contractor is advised that this is a multi-year contract and that prevailing wage rates are updated annually.

- (11) Notice to City. Minimum 24-hours prior notice shall be given to the City's Department of Public Works prior to commencement of work under this Contract.

- (12) Approved Plans & Specifications to be followed. All work is to be performed to the City's satisfaction and in compliance with the Contract Documents listed in section 6.A(3) above, unless such requirements or specifications are expressly amended in writing by the City.
- (13) Schedule of Work to be followed. All Work shall be performed by the date for completion provided in each Work Order. Contractor shall diligently proceed with the work and shall assure that it, and its subcontractors, have adequate staffing at all times in order for Contractor to comply with any Schedule of Work agreed to by the Parties, and shall make all reasonable efforts to complete the work in a timely manner.
- (14) Duty to Correct. Contractor shall promptly correct work rejected by the City as failing to conform to the requirements of the Contract. The Contractor shall bear the cost of correcting such rejected work. If the Contractor fails to correct nonconforming work within a reasonable time, the City may correct it and Contractor shall reimburse the City for the cost of the correction.
- (15) Project Administration/Notice to Proceed. The Public Works Director, or his or her designee, shall administer this Contract and shall have all authority provided for the City under this Contract including all project approvals, including change orders. Contractor shall not commence work until Notice to Proceed has been given by the City. All work performed under this Contract will be monitored and inspected by the Public Works Director or his or her designee, and accepted by same. T

c. Non-Discrimination.

- (16) Contractor, Contractor's officers and employees, and its subcontractors and agents, shall not discriminate against any employee or applicant for employment or any other person in the performance of this Contract because of race, creed, color, national origin, marital status, sex, age, disability, or other condition prohibited by federal, state, or local law or ordinance, except where the condition constitutes a bona fide occupational qualification under law.
- (17) Any violation of this Section shall be a material breach of this Contract and grounds for immediate cancellation, termination, or suspension of the Contract by the City, in whole or in part, and may result in Contractor being ineligible to perform further work for the City.

- 7. **Compensation.** Compensation shall be by Unit Price for each of the 5 categories of work as defined in the attached Bid Form/Scope of Work at the bid amounts.

Compensation for services requested by the City beyond the defined Scope of Work shall be by the unit prices according to the bid or by change order.

8. **Payment**

- A. The City shall pay the Contractor for the work performed under this contract as follows (select one):

- ☐ Time and materials; not to exceed _____ plus all applicable taxes.
☐ Lump sum price set forth on the Contractor's proposal; not to exceed _____ plus all applicable taxes.
☒ Unit prices set forth in the Contractor's proposal; not to exceed \$300,000 plus all applicable taxes.

- B. Contractor shall request approval and acceptance of each category of work from the City. Contractor may not bill for the completed work until the City has accepted the completed work.

- C. All invoices shall be submitted for work after it has been performed, and paid by City warrant within thirty (30) days of receipt of a proper invoice.

- D. Failure to perform any of the obligations under the Contract by Contractor may be decreed by the City to be adequate reason for withholding any payments until compliance is achieved. Progress payments for work performed shall not be evidence of acceptable performance or an admission by the City that any work has been satisfactorily completed.

- E. Payments received on account of work performed by a subcontractor are subject to the provisions of RCW 39.04.250.

9. **Performance Bond.** If applicable, the Contractor shall provide a performance and payment bond to the City prior to commencement of work for 100% of the bid amount guaranteeing the full and faithful performance by Contractor of the terms and conditions of this Contract.

Initial: BAK (Contractor)

10. **Retainage.** Pursuant to Chapter 60.28 RCW, a sum of five percent (5%) of the monies earned by Contractor will be retained from each invoice. Such retainage shall be used as a trust fund for the protection and payment: (1) to the State with respect to taxes imposed pursuant to RCW Title 82, and (2) the claims of any person arising under the Contract. No final payment or release of any retainage will be made until Contractor and each subcontractor has submitted an "Affidavit of Wages Paid" (LI 700-7 or other approved form) that has been certified by the industrial statistician of the Department of Labor and Industries. Also the retainage will not be released until the City has received certification that the Department of Revenue has received due payment of applicable taxes. Once the City has received certification from appropriate departments of the state of Washington, 45 days has passed from the date of acceptance of the Project and the City has not received any claims against the Project, then the City will release the retainage.

11. **Changes.** After execution of the Contract, changes in the scope of the Work set forth in the Work Order may be accomplished by change order. Change orders shall be in writing signed by the Parties.
12. **Term and Termination of Contract.** This Agreement shall be valid for a period of three (3) years from the date of mutual execution, with an option, exercisable by the City, of a one (1) year renewal term, or upon the Contractor completing \$300,000 worth of Work under this Contract, whichever occurs first. Further, this Contract may be terminated by the City at any time upon the default of the Contractor or upon public convenience, in which Contractor shall be entitled to just and equitable compensation for any satisfactory work completed prior to the date of termination. Contractor shall not be entitled to any reallocation of cost, profit or overhead. Contractor shall not in any event be entitled to anticipated profit on work not performed because of such termination. Contractor shall use its best efforts to minimize the compensation payable under this Contract in the event of such termination. If the contract is terminated for default, Contractor shall not be entitled to receive any further payments under the Contract until all work called for has been fully performed. Any extra cost or damage to the City resulting from such default(s) shall be deducted from any money due or coming due to Contractor. Contractor shall bear any extra expenses incurred by the City in completing the work, including all increased costs for completing the work, and all damage sustained, or which may be sustained by the City by reason of such default.
13. **Responsibility Criteria and Verification by Contractor.** Pursuant to Chapter 39.04 RCW, the following requirements are part of this Contract:

A. Responsibility Criteria.

- (1) Eligibility to be awarded contract. Contractor hereby certifies that Contractor meets the following responsibility criteria:
 - a. Contractor has a certificate of registration in compliance with chapter 18.27 RCW;
 - b. Contractor has a current state unified business identifier number;
 - c. If applicable, Contractor has industrial insurance coverage for Contractor's employees working in Washington as required under Title 51 RCW; an employment security department number as required in Title 50 RCW; and a state excise tax registration number as required in Title 82 RCW; and
 - d. Contractor is not disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3);
 - e. Contractor is a licensed Electrical Contractor with the State of Washington Department of Labor and Industries; and

- f. Contractor has been in business performing electrical work for at least two years at the time of bid submittal.

B. *Requirement to verify subcontractors.* Contractor verifies the responsibility criteria contained above for each first tier subcontractor, and a subcontractor of any tier that hires other subcontractors and that each subcontractor verify the responsibility criteria for each of its subcontractors. Verification shall include that each subcontractor, at the time of subcontract execution, meets the responsibility criteria listed in RCW 39.04.350(1) and possesses an electrical contractor license, if required by chapter 19.28 RCW, or an elevator contractor license, if required by chapter 70.87 RCW. This verification requirement must be included in every subcontract of every tier.

14. Insurance.

A. All employees, subcontractors, agents to be covered. Contractor shall procure and maintain for the duration of the Contract, and shall provide proof satisfactory to the City, insurance that covers Contractor and each of Contractor's employees, subcontractors or agents (who are not otherwise covered by Contractor's insurance) against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by Contractor, its employees, subcontractors or agents.

B. Lack of insurance grounds for termination of contract. The Contractor shall provide the City and all Additional Insureds for this work with written notice of any policy cancellation within two business days of their receipt of such notice. Failure of Contractor to maintain insurance as required herein shall be grounds for termination of this Contract by the City, after giving five business days' notice to the Contractor to correct the breach. Alternatively, the City may procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due to the Contractor from the City.

C. Title 51 Industrial Insurance Waived. The Parties have specifically negotiated as a term of this Contract that Contractor has agreed to expressly waive immunity under Title 51 RCW, Industrial Insurance Law.

D. Minimum Scope of Insurance. Contractor shall obtain insurance of the types described below and maintain such insurance for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives or employees as follows:

1. Automobile Liability insurance with limits not less than \$1,000,000 per accident covering all owned, non-owned, hired and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage. The policy shall provide contractual liability coverage.

2. Commercial General Liability insurance with limits not less than \$1,000,000 per occurrence/\$2,000,000 annual aggregate and \$2,000,000 products-completed operations aggregate shall be written on ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract. The Commercial General Liability insurance shall be endorsed to provide the Aggregate Per Project Endorsement ISO form CG 25 03 05 09. There shall be no exclusion, endorsement or modification of the Commercial General Liability insurance for liability arising from explosion, collapse or underground property damage. The City shall be named as an insured under Contractor's Commercial General Liability insurance policy with respect to the work performed for the City using ISO Additional Insured endorsement CG 20 10 10 01 and Additional Insured-Completed Operations endorsement CG 20 37 10 01 or substitute endorsements providing equivalent coverage.

3. Employer's liability insurance each accident \$1,000,000; Employer's Liability Disease each employee \$1,000,000; and Employer's Liability Disease – policy limit \$1,000,000.

4. If the Contractor maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this contract or whether any certificate of insurance furnished to the City evidences limits of liability lower than those maintained by the Contractor.

E. Other Insurance Provisions. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A: VII. The insurance policies are to contain, or be endorsed to contain, the following provisions for Automobile Liability, Commercial General Liability, and Employer's Liability insurance:

1. Contractor's insurance coverage shall be primary insurance as respects the City. Any insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess of the Contractor's insurance and shall not contribute with it.

2. Contractor's insurance shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

3. Contractor, at the City's request, shall provide to the City a complete copy of requested policy(ies) and not just certificates.

4. The City will not waive its right to subrogation against the Contractor. The Contractor's insurance shall be endorsed acknowledging that the City will not waive its right to subrogation. The Contractor's insurance shall be endorsed to waive the right of subrogation against the

City, or any self-insurance, or insurance pool coverage maintained by the City.

- F. Verification of Coverage. Contractor shall furnish the City with original certificates and a copy of all amendatory endorsements, naming the City as additional named insured, including but not necessarily limited to the additional
- G. insured endorsements evidencing the Automobile Liability and Commercial General Liability insurance of Contractor before commencement of the work. Subcontractors. Contractor shall ensure that each subcontractor of every tier obtains at a minimum the same insurance coverage and limits as stated herein for Contractor. The Contractor shall ensure that the City is an additional insured on each and every Subcontractor's Commercial General liability insurance policy using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations. Upon request of the City, Contractor shall provide evidence of such insurance.
- H. Contractor's Other Losses. Whether insured or not, Contractor shall assume full responsibility for all loss or damage from any cause whatsoever to any tools, vehicles, equipment or other personal property; and Contractor's employee owned tools, machinery, equipment, or motor vehicles owned or rented by Contractor, or Contractor's agents, suppliers or contractors as well as to any temporary structures, scaffolding and protective fences.

15. Claims for damages.

- A. Excluded situations. The City shall not be responsible for delays caused by soil conditions; underground obstructions; labor disputes; fire; delays by third parties, including public and private utilities; or reasonably foreseeable delays.
- B. Liability limited to direct costs. Contractor agrees that the City's liability to Contractor for payment of claims or damages of any kind whatsoever related to this Contract shall be limited to direct costs as provided under the force account provisions of applicable standard specifications. Contractor expressly waives all claims for payment of damages that include or are computed on total costs of job performance, extended overhead, or other similar methods that are not specific as to the actual, direct costs of contract work as defined in the force account provisions of applicable standard specifications.
- C. "Damages" defined. For purposes of applying RCW 4.24.115 to this Contract, Contractor and the City agree that the term "damages" applies only to a finding in a judicial proceeding and is exclusive of third party claims for damage primarily thereto.
- D. Indemnification. The Contractor shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits, including attorney fees, arising out of or in connection with the performance of this Agreement, except for injuries or damages

caused by the sole negligence of the City.

Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the City, its officers, officials, employees and volunteers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence.

It is further agreed that claims for damages against the City for which Contractor's insurance carrier does not accept defense of the City may be tendered by the City to Contractor, who shall then accept and settle with the claimant or defend the claim. The City retains the right to approve claims investigation and counsel assigned to said claims, and all investigation of legal work product regarding said claims shall be performed under a fiduciary relationship to the City.

It is further specifically and expressly understood that the indemnification provided herein constitutes Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Contract.

16. Assigning or Subcontracting. Contractor shall not assign, transfer, subcontract or encumber any rights, duties, or interests accruing from this Contract without the express prior written consent of the City.

17. Independent Contractor. Contractor is and shall be at all times during the term of this Contract an independent contractor. Any and all employees of the Contractor, while engaged in the performance of any work or services required by the Contractor under this Contract, shall be considered employees of the Contractor only and not of the City.

18. Disputes. Any action for claims arising out of or relating to this Contract shall be governed by the laws of the State of Washington. Venue shall be in Pierce County Superior Court.

19. Attorney's Fees. In any suit or action instituted to enforce any right granted in this Contract, the substantially prevailing party shall be entitled to recover its costs, disbursements, and reasonable attorney's fees from the other party.

20. Extent of Contract/Modification. This Contract, together with attachments or addenda, represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. This Contract may be amended, modified or added to only by written instrument properly signed by both parties. Should any language in any of the Exhibits or Contract Documents conflict with language contained in this Contract, the provisions of this Contract shall prevail.

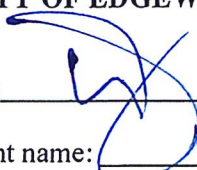
21. The Contractor will not use any trade name, trademark, service mark, or logo of the City (or any name, mark, or logo confusingly similar thereto) in any advertising, promotions, or

otherwise, without the City's express prior written consent.

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BY ITS SIGNATURE BELOW, EACH PARTY ACKNOWLEDGES HAVING READ AND UNDERSTOOD THE TERMS AND CONDITIONS OF THIS CONTRACT AND AGREES TO BE BOUND BY THEM.

CITY OF EDGEWOOD

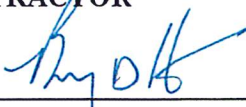
By: 

Print name: DAVID EDINGER

Title: Mayor

Date: 8/12/2020

CONTRACTOR

By: 

Print name: Bryson Huie

Title: President

Date: 7/29/2020

APPROVED AS TO FORM:



Ann Marie J. Soto, City Attorney

Attachments

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, Bryson Huie (Corporate Officer (Not Contract Signer)) certify that I am the President (Corporate Title) of the corporation named as Contractor in the Contract attached hereto; that Bryson Huie, (Contract Signer) who signed said Contract on behalf of Contractor, was then President (Corporate Title) of said corporation; that said Contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

[Signature]

Corporate Officer Signature (not Contract Signer)

Bryson Huie

Print Name

President

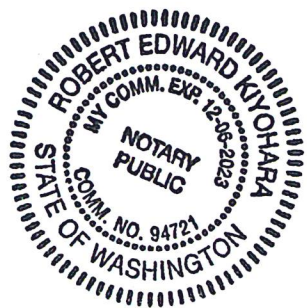
Title

State of WASHINGTON

County of PIERCE

Bryson D. Huie, (Corporate Officer (not Contract Signer)) being duly sworn, deposes and says that (he) she is PRESIDENT (Corporate Title) of TRANSPORTATION SYSTEMS INC (Name of Corporation).

Subscribed and sworn to before me this 29 day of JULY, 2020.



Robert Edward Kiyohara

Notary Public (Signature)

ROBERT EDWARD KIYOHARA

Notary Public (Print)

My commission expires 12-06-2023

**CITY OF EDGEWOOD
PERFORMANCE BOND**

Surety Bond #: 30077835
DATE POSTED: _____
PROJECT COMPLETION DATE: August 11, 2023

RE: On Call Electrical Services Contract
Contractor: Transportation Systems, Inc.
Project Address: City of Edgewood - Citywide

KNOW ALL PERSONS BY THESE PRESENTS: That we, Transportation Systems, Inc.
_____ (hereinafter called the "Principal"), and Western Surety Company
a corporation organized under the laws of the State of South Dakota, and authorized to
transact surety business in the State of Washington (hereinafter called the "Surety"), are held and firmly
bound unto the City of Edgewood, Washington, in the sum of Three Hundred Thousand and No/100
(\$ 300,000.00), lawful money of the United States of America, for the payment of which sum
we and each of us bind ourselves, our heirs, executors, administrators, successors and assigns, jointly
and severally, by these presents. THE CONDITIONS of the above obligation are such that:

WHEREAS, the above named Principal has entered into a certain agreement with the City for*,
within the City; * On Call Electrical Services Contract

WHEREAS, the agreement requires that certain work be done on behalf of the City; and that such work
be performed in full compliance with City standards, and the plans and specifications submitted with
the project, as required by the City; and

WHEREAS, the agreement granted by the City requires that the work is to be performed within a
certain period of time, unless an extension is granted in writing by the City; and

NOW, THEREFORE, it is understood and agreed that this obligation shall continue in effect until
released in writing by the City of Edgewood, but only after the Principal has performed and satisfied
the following conditions:

A. Conditions.

1. The work to be performed by the Principal includes: (insert complete description
here)

Installation, operation and maintenance of school zone beacons, pedestrian crossing warning beacons,
radar speed limit signs, and similar roadside appurtenances on public roadways throughout the City.

2. The Principal must complete the Work as required by the City in accordance with the contract executed on 8/11/2020 and according to any applicable Work or Task Orders ordering the Work. In addition, the Principal must perform the work according to the applicable ordinances and standards of the City and/or state statutes, as the same now exist or are hereafter amended.
3. The Principal must have completed all work as set forth in the Work or Task Order or other instruction provided by the City.
4. The Principal must have paid all sums owing to laborers, contractors, mechanics, subcontractors, materialmen and suppliers or others as a result of such work for which a lien against any City property has arisen or may arise.
5. The Principal must obtain acceptance by the City of the work completed, all on or before thirty (30) days after the completion date set forth in paragraph 3 above.

B. Default.

1. If the Principal defaults and does not perform the above conditions within the time specified, then the Surety shall, within twenty (20) days of demand of the City, make a written commitment to the City that it will either:
 - a). remedy the default itself with reasonable diligence pursuant to a time schedule acceptable to the City; or
 - b). tender to the City within an additional ten (10) days the amount necessary, as determined by the City, for the City to remedy the default, up to the total bond amount.

Upon completion of the Surety's duties under either of the options above, the Surety shall then have fulfilled its obligations under this bond. If the Surety elects to fulfill its obligation pursuant to the requirements of subsection B(1)(b), the City shall notify the Surety of the actual cost of the remedy, upon completion of the remedy. The City shall return, without interest, any overpayment made by the Surety, and the Surety shall pay to the City any actual costs, which exceeded the City's estimate, limited to the bond amount.

2. In the event the Principal fails to complete all of the above referenced improvements within the time period specified by the City, then the City, its employees and agents shall have the right at the City's sole election to enter onto said property described above for the purpose of completing the improvements. This provision shall not be construed as creating an obligation on the part of the City or its representatives to complete such improvements.

- C. Corrections. Any corrections required by the City shall be commenced within seven (7) days of notification by the City and completed within thirty (30) days of the date of notification. If the work is not performed in a timely manner, the City shall have the right, without recourse

to legal action, to take such action under this bond as described in Section B above.

- D. Extensions and Changes. No change, extension of time, alteration or addition to the work to be performed by the Principal shall affect the obligation of the Principal or Surety on this bond, unless the City specifically agrees, in writing, to such alteration, addition, extension or change. The surety waives notice of any such change, extension, alteration or addition thereunder.
- E. Enforcement. It is specifically agreed by and between the parties that in the event any legal action must be taken to enforce the provisions of this bond or to collect said bond, the prevailing party shall be entitled to collect its costs and reasonable attorney fees as a part of the reasonable costs of securing the obligation hereunder. In the event of settlement or resolution of these issues prior to the filing of any suit, the actual costs incurred by the City, including reasonable attorney fees, shall be considered a part of the obligation hereunder secured. Said costs and reasonable legal fees shall be recoverable by the prevailing party, not only from the proceeds of this bond, but also over and above said bond as a part of any recovery (including recovery on the bond) in any judicial proceeding. The Surety hereby agrees that this Agreement shall be governed by the laws of the State of Washington. Venue of any litigation arising out of this Agreement shall be in Pierce County Superior Court.
- F. Bond Expiration. This bond shall remain in full force and effect until the obligations secured hereby have been fully performed and a bond guaranteeing maintenance of all work performed for a period of twenty-four (24) months from acceptance has been submitted to the City in an amount to be determined by the City Engineer, in a form suitable to the City and until released in writing by the City.

DATED this 29th day of July, 2020.

SURETY COMPANY

(Signature must be notarized)

By: 
Its: Attorney-in-Fact

Print Name: Holli Albers

Business Name: Western Surety Company

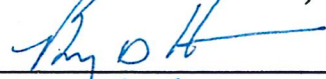
Business Address: 999 Third Avenue, Suite 2500

City/State/Zip Code: Seattle, WA 98104

Telephone Number: (800) 262-2110

CONTRACTOR

(Signature must be notarized)

By: 
Its: president

Print Name: Bryson Huie

Business Name: Transportation Systems, Inc.

Business Address: 6917 166th Ave E

City/State/Zip Code: Sumner, WA 98390

Telephone Number: (206) 510-6533

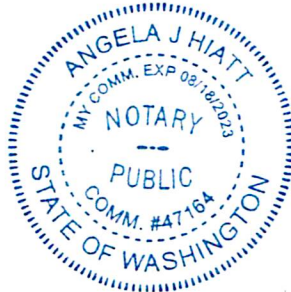
FORM P-2 / NOTARY BLOCK - (Use For Partnership or Corporation Only)

STATE OF WASHINGTON)
) ss.
COUNTY OF)

I certify that I know or have satisfactory evidence that Bryson Huie is the person who appeared before me, and said person acknowledged as the president of Transportation systems, inc that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it to be (his/her) free and voluntary act for the uses and purposes mentioned in the instrument

Dated: 7/31/20

Angela J. Hiatt
Notary Signature
Angela Hiatt
(print or type name)



NOTARY PUBLIC in and for the State of Washington, residing at: _____, Washington.
My Commission expires: _____

(For Surety Company)

STATE OF WASHINGTON)
) ss.
COUNTY OF PIERCE)

I certify that I know or have satisfactory evidence that Holli Albers is the person who appeared before me, and said person acknowledged as the Attorney-in-Fact of Western Surety Company that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it to be (his/her) free and voluntary act for the uses and purposes mentioned in the instrument.

Dated: July 29, 2020

Karen C. Swanson
Notary Signature
Karen C. Swanson, Notary Public
(print or type name)



NOTARY PUBLIC in and for the State of Washington, residing at: Tacoma, Washington.
My Commission expires: 11-20-2021



City Of Edgewood Council Agenda Summary Sheet

Subject: Chrisella Rd Change Order	Agenda Item #: 2.E
	For Agenda of: 8/20/2024
	Prepared by: Chuck Hendricksen
Attachments (list): 1. CO 1 - Chrisella 2024-06-17 - 1 sig	
Approval of Materials: Chuck Hendricksen Rachel Pitzel, Assistant City Administrator 8/14/2024 Dave Olson 8/14/2024	Expenditure Required: \$106,232.98 (Cities portion)
	Amount Budgeted: N/A
	Timeline: 08/20/2024 - SS Discussion 08/27/2024 - RCM Action Under Consent Agenda

Summary Statement:

The City Council authorized the Chrisella Road Safety Improvements Contract on January 9, 2024 by passing Resolution 24-0699. City staff have been working with the contractor, R.W. Scott Construction Company (RW Scott), since contract authorization to prepare for the work, and they have just recently mobilized to the site due to the ongoing relocation of natural gas transmission lines by Puget Sound Energy (PSE).

Because of this extensive buried utility work and the impact it has had on the road way surface, staff found an opportunity to coordinate the restoration of Chrisella Road for both efforts under the City's project. Attached is a change order that incorporates the restoration work from PSE's effort into the City's contract with RW Scott. While this additional pavement work is not eligible for reimbursement under the federal grant program that is funding this project, staff believes this is still an excellent opportunity to very efficiently maximize the public's investment in Chrisella Road for years to come. Staff is seeking Council's acceptance of the attached change order this evening so RW Scott can proceed with the work during this construction season.

Item History:

Recommended Action:

Hold a discussion and provide staff guidance regarding Chrisella Rd Change Order

Fiscal Note/Consideration:

The total contract increase under this change order is \$275,723.96, of which PSE is contributing \$169,490.98. The remaining \$106,232.98 will be paid for with local funds, as it is not eligible for reimbursement under the federal grant, and those funds will come from REET.



Change Order

Contract Number TA7187	Contract Title Chrisella Road E Safety Improvements	Federal Aid Number 3209(007)
Change Order Number 1	Change Description HMA Overlay and updated BABA GSP	Date 6/17/24
Prime Contractor / Design-Builder R.W. Scott Construction		

☒ Ordered by Engineer under the terms of Section 1-04.4 of the Standard Specifications

☐ Change proposed by Contractor / Design-Builder

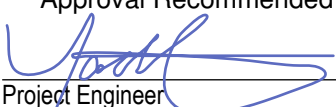
Change Description

Furnish and install a 2-inch thick HMA overlay within the project limits Sta 11+10 to Sta 56+75. Adjust castings to grade and install driveway and intersection approach grinding on the west side of the road within these limits.

Replace Section 1-06.2.Opt2(A).GR1 dated June 6, 2023 in the Special Provisions with the current version dated December 20, 2023.

Verbal Approval Given By	Verbal Approval Date	Working Days +/- 5
--------------------------	----------------------	-----------------------

Original Contract Amount \$1,324,612.79	Current Contract Amount \$1,324,612.79	Est. Net Change This C.O. +\$275,723.96	Est. Contract Amount \$1,600,336.75
--	---	--	--

Approval Recommended  Project Engineer 6/17/2024 Date	Approved	Approved
		Approving Authority per C.A. Agreement
		Date
Approval Recommended		Other Approval As Required
By Prime Contractor		Signature
Date		Date
		Representing

Contract Number TA7187	Contract Title Chrisella Road E Safety Improvements	Change Order Number 1
Change Description Cont. See attachment		

CHANGE ORDER NO. 1

Project Title Chrisella Road E Safety Improvements

Owner City of Edgewood **Contractor Name** R.W. Scott Construction

Change Order No. 1 **Contractor Address** 4005 W Valley Hwy N, Suite A
Auburn, WA 98001

Change Order Date June 17, 2024

Federal Contract No. TA 7187 **Federal Aid No.** HSIP 3209(007)

G&O No. 21621

The following changes are hereby made to the Contract Documents:

ITEM NO. 1:

The Contractor is directed to make the following changes:

Delete General Special Provision (GSP) Section 1-06 Opt 2(A) Build America/Buy America dated June 6, 2023, and replace it the current GSP dated December 20, 2023, attached.

This is a no cost item.

ITEM NO. 2:

The Contractor is directed to make the following changes:

Furnish and install a 2-inch thick HMA overlay over both travel lanes on Chrisella Road East within the project limits, as shown on the attached revised typical section. Perform a tapered plan on the existing paved driveway approaches and intersection approaches on the west side of the road within the project limits as shown on the attached planing detail. Adjust existing castings within the travel lanes to the new finished grade per the plans.

Payment performing the additional work will be paid via new and existing unit contract items:

Item No.	Description	Qty Change	Unit	Contract Price	Amount
7	Flaggers	108	HR	\$119.93	\$12,952.44
8	Other Traffic Control Labor	24	HR	\$119.93	\$2,878.32
12	Portable Changeable Message Sign	1152	HR	\$0.60	\$691.20
21	Crushed Surfacing Base Course	120	TN	\$37.00	\$4,440.00
36	Bank Run Gravel for Trench Backfill	200	TN	\$32.76	\$6,552.00

54	Removing Plastic Line	-4380	LF	\$2.50	-\$10,950.00
*57	HMA CI 1/2" PG 58H-22 for Overlay	1400	TN	\$165.00	\$231,000.00
*58	Planinng Bituminous Pavement	1680	SY	\$12.00	\$20,160.00
*59	Adjust Monument Case to Grade	1	EA	\$2,500.00	\$2,500.00
*60	Traffic Control Supervisor - CO No 1 Work	1	LS	\$5,500.00	\$5,500.00
Total Cost Change Order No 1					\$275,723.96

* New Contract Item

(December 20, 2023)

General Requirements

In accordance with Buy America Preferences for Infrastructure Projects requirements contained in 2 CFR 184 and Division G, Title IX - Build America, Buy America Act (BABA), of Public Law 117-58 (Infrastructure Investment and Jobs Act), the following materials must be American-made:

1. All steel and iron used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

An article, material, or supply will be classified in one of three categories: 1) Steel and Iron, 2) Manufactured Product or 3) Construction Material. Only a single category will apply to an item and be subject to the requirements of the BABA requirements of that category. Some contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a construction material, manufactured product, or steel and iron based on their composition when they arrive at the staging area or work site. When steel or iron are a component of a manufactured product or construction material, the steel and iron components will be subject to "Steel and Iron Requirements" of this Specification.

Definitions

1. Construction Material: Defined as any article, material, or supply brought to the construction site for incorporation into the final product. Construction materials include an article, material, or supply that is or consists primarily of:
 - a. Non-ferrous metals including all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly;
 - b. Plastic and polymer-based products including all manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form);
 - c. Glass including all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting);
 - d. Fiber optic cable (includes drop cable) including all manufacturing processes, from initial ribboning (if applicable), through buffering, fiber stranding and jacketing, (fiber optic cable also includes the standards for glass and optical fiber);

- e. Optical fiber including all manufacturing processes, from the initial preform fabrication stage, through the completion of the draw;
- f. Lumber including all manufacturing processes, from initial debarking through treatment and planing;
- g. Drywall including all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels; or
- h. Engineered wood including all manufacturing processes from the initial combination of constituent materials until the wood product is in its final form.

Construction Materials do not include items of primarily iron or steel; manufactured products; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

If a Construction Material is not manufactured in the United States it shall be considered a Foreign Construction Material.

2. **Manufactured Product:** A Manufactured product includes any item produced as a result of the manufacturing process. Items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.
3. **Manufactured in the United States:** A construction material will be considered as manufactured in the United States if all manufacturing processes have occurred in the United States.
4. **Structural Steel:** Defined as all structural steel products included in the project.
5. **United States:** To further define the coverage, a domestic product is a manufactured steel construction material that was produced in one of the 50 states, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

Steel and Iron Requirements

Major quantities of steel and iron construction materials that are permanently incorporated into the project shall consist of American-made materials only. BABA requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total contract cost or \$2,500.00, whichever is greater.

American-made material is defined as material having all manufacturing processes occurring domestically.

1 If domestically produced steel billets or iron ingots are exported outside of the area of
2 coverage, as defined above, for any manufacturing process then the resulting product
3 does not conform to the BABA requirements. Additionally, products manufactured
4 domestically from foreign source steel billets or iron ingots do not conform to the BABA
5 requirements because the initial melting and mixing of alloys to create the material
6 occurred in a foreign country.
7

8 Manufacturing begins with the initial melting and mixing and continues through the coating
9 stage. Any process which modifies the chemical content, the physical size or shape, or
10 the final finish is considered a manufacturing process. The processes include rolling,
11 extruding, machining, bending, grinding, drilling, welding, and coating. The action of
12 applying a coating to steel or iron is deemed a manufacturing process. Coating includes
13 epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or
14 enhances the value of steel or iron. Any process from the original reduction from ore to
15 the finished product constitutes a manufacturing process for iron.
16

17 Due to a nationwide waiver, BABA requirements do not apply to raw materials (iron ore
18 and alloys), scrap (recycled steel or iron), and pig iron ore processed, pelletized, and
19 reduced iron ore.
20

21 The following are considered to be steel manufacturing processes:
22

- 23 1. Production of steel by any of the following processes:
24
25 a. Open hearth furnace.
26
27 b. Basic oxygen.
28
29 c. Electric furnace.
30
31 d. Direct reduction.
32
- 33 2. Rolling, heat treating, and any other similar processing.
34
- 35 3. Fabrication of the products:
36
37 a. Spinning wire into cable or strand.
38
39 b. Corrugating and rolling into culverts.
40
41 c. Shop fabrication.
42

43 A certification of materials origin will be required for all items comprised of, or containing,
44 steel or iron construction materials prior to such items being incorporated into the
45 permanent work. The Contractor will not receive payment until the certification is received
46 by the Engineer. The certification shall be on WSDOT Form 350-109 provided by the
47 Engineer, or such other form the Contractor chooses, provided it contains the same
48 information as WSDOT Form 350-109.
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ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVE	AVENUE
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
C	CONDUIT
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CICL	CAST IRON CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUED/CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CTR	CENTER
CY	CUBIC YARD
¢	CENTER LINE
D	DRAIN
DC	DEGREE OF CURVATURE
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DOT	DEPARTMENT OF TRANSPORTATION
DWGS	DRAWING(S)
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EVGE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INV	INVERT
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVATURE
PE	PLAIN END
PERF	PERFORATED
PI	POINT OF INTERSECTION
PP	POWER POLE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
QTY	QUANTITY
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
RET	RETAINING
RR	RAILROAD
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SL	SLOPE
SPECS	SPECIFICATIONS
SQ	SQUARE
STA	STATION
STD	STANDARD
TB	THRUST BLOCK
TC	TOP OF CURB
TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THRD	THREADED
THRU	THROUGH
TYP	TYPICAL
VERT	VERTICAL
W	WEST
WI	WITH
WO	WITHOUT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

LINETYPES

EXISTING	PROPOSED	DESCRIPTION
SURFACE FEATURES		
		CURB (TYPE AS NOTED)
		CURB & GUTTER
		ASPHALT PAVEMENT PATCH AND OVERLAY
		GRAVEL SURFACING
		CONCRETE SURFACING
		CEMENT CONC. SIDEWALK
		PAVEMENT PLANING
		ASPHALT OVERLAY
SURVEY		
		GUARD RAIL
		FENCE/RAILING (TYPE AS NOTED)
		FENCE WITH GATE
		SHRUB/TREE/VEGETATION LINE
		EDGE OF LANDSCAPING
		SILT FENCE
UTILITIES		
		OVERHEAD UTILITIES
		TRAFFIC SIGNALS SPAN WIRE
		BURIED ELECTRICAL
		BURIED TELEPHONE/COMMUNICATIONS
		BURIED COMMUNICATIONS
		BURIED CABLE TELEVISION
		BURIED FIBER-OPTIC LINE
		GAS MAIN (SIZE AS NOTED)
		WATER MAIN (SIZE AS NOTED)
		RECLAIMED WATER MAIN (SIZE AS NOTED)
		IRRIGATION LINE (4" OR LARGER, SIZE NOTED)
		SANITARY SEWER MAIN (SIZE AS NOTED)
		SANITARY SEWER FORCE MAIN (SIZE AS NOTED)
		STORM DRAIN (SIZE AS NOTED)
		UNDERDRAIN (SIZE AS NOTED)
		CULVERT (SIZE & TYPE AS NOTED)
		DITCH CENTERLINE/THALWEG

WATER SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		FIRE HYDRANT (2-NOZZLE)
		FIRE HYDRANT (3-NOZZLE)
		WATER METER
		WATER VALVE
		WATER VAULT (SIZE VARIES)

GAS/POWER/TELEPHONE SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		GAS METER
		GAS VALVE
		PAD MOUNT TRANSFORMER
		POWER VAULT (SIZE VARIES)
		TRANSMISSION TOWER
		UTILITY POLE
		UTILITY POLE ANCHOR
		UTILITY PEDESTAL
		TELEPHONE VAULT (SIZE VARIES)

SANITARY/STORM SEWER SYMBOLS

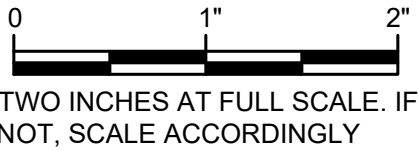
EXISTING	PROPOSED	DESCRIPTION
		STORM DRAIN MANHOLE/TYPE 2 CATCH BASIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		STORM DRAIN CATCH BASIN, CONCRETE INLET, OR YARD/AREA DRAIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		SANITARY SEWER MANHOLE (ACTUAL DIMENSION SHOWN FOR PROPOSED)
		CLEAN OUT (SAN. SEWER OR STORM)

SURFACE FEATURES/LANDSCAPING

EXISTING	PROPOSED	DESCRIPTION
		BUILDING
		BUILDING EAVES
		MAIL BOX (NOTED)
		SIGN
		FLEXIBLE GUIDE POST/DELINEATOR
		TREE STUMP
		RIP RAP
		ROCK WALL
		MODULAR BLOCK WALL
		SEGMENTAL BLOCK WALL
		SHRUB
		TREE (CONIFER)
		TREE (DECIDUOUS)

GENERAL NOTES:

- ALL MATERIALS AND WORKMANSHIP SHALL BE FURNISHED AND SUPPLIED IN ACCORDANCE WITH THE 2023 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THESE CONTRACT DOCUMENTS UNLESS OTHERWISE SPECIFICALLY NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT AND COORDINATE WITH ALL UTILITY COMPANIES IN ORDER TO ASSURE THAT ALL LINES, PIPES, POLES AND OTHER APPURTENANCES ARE PROPERLY LOCATED, SECURED, AND/OR PROTECTED. BURIED UTILITIES (WHERE KNOWN) ARE SHOWN IN THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL HAVE UTILITIES VERIFIED ON THE GROUND PRIOR TO ANY CONSTRUCTION. NOTIFY THE UNDERGROUND UTILITIES LOCATE CENTER: CALL #811.
- THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS, ANY ADDENDA, CHANGE ORDERS AND THE CONTRACT SPECIFICATIONS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN THE EVENT OR DISCOVERY OF UNSUITABLE SOILS OR HIGH GROUND WATER CONDITIONS OR DISCREPANCIES FROM THE PLANS.
- WHEREVER PLANS REFER TO "SAWCUT" OF ASPHALT CONCRETE PAVEMENT OR OIL MAT, OR CONCRETE SURFACE, THE CONTRACTOR SHALL PERFORM A "NEAT LINE CUT" PER SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH MUTCD. PRIOR TO DISTRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS SHALL BE PREPARED AND SUBMITTED TO THE TOWN FOR APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
- PROTECTION OF THE ENVIRONMENT: NO CONSTRUCTION RELATED ACTIVITY SHALL CONTRIBUTE TO THE DEGRADATION OF THE ENVIRONMENT, ALLOW MATERIAL TO ENTER SURFACE OR GROUND WATERS, OR ALLOW PARTICULATE EMISSIONS TO THE ATMOSPHERE, WHICH EXCEED STATE OR FEDERAL STANDARDS. ANY ACTIONS THAT POTENTIALLY ALLOW A DISCHARGE TO STATE WATERS MUST HAVE PRIOR APPROVAL OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.



Gray & Osborne, Inc.
CONSULTING ENGINEERS
1100 RANIER AVENUE SOUTH, SUITE 300
SEATTLE, WASHINGTON 98148 • (206) 824-0860

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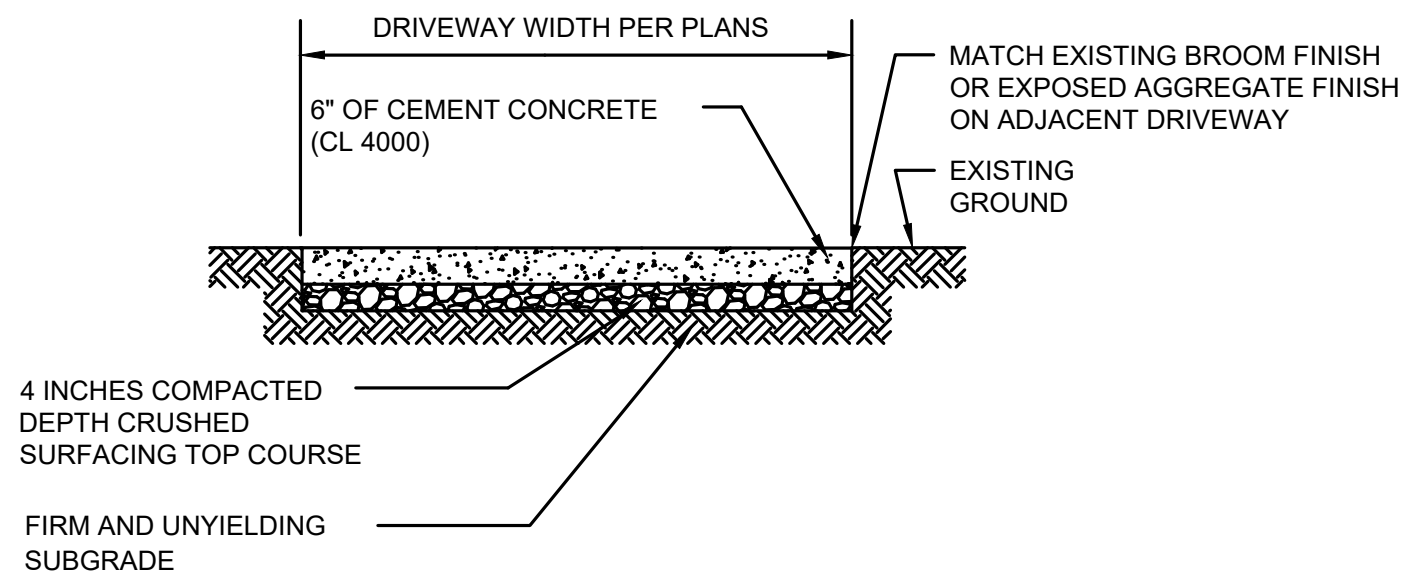
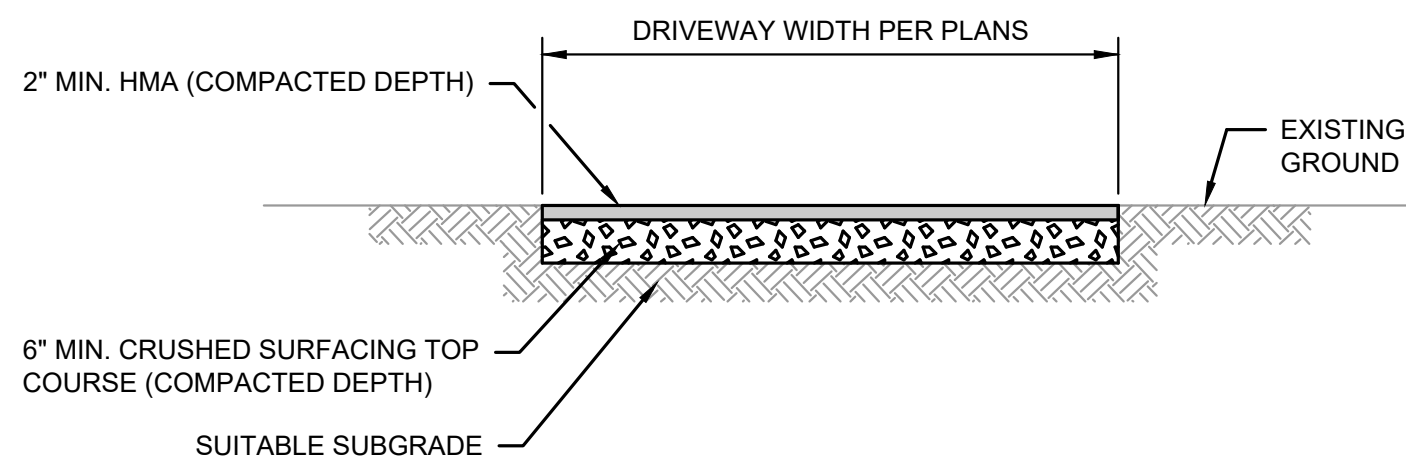
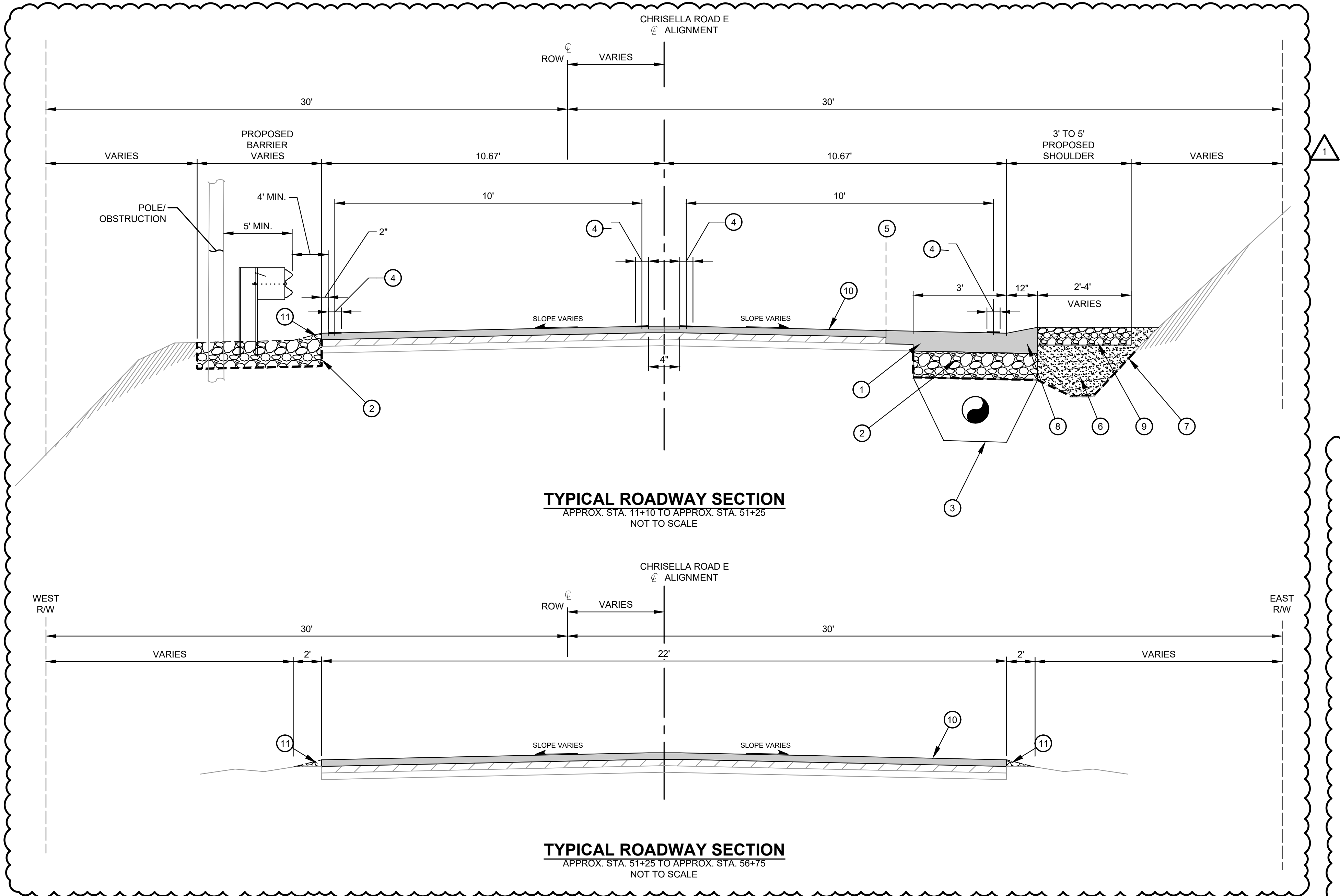
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CITY OF EDGEWOOD
PIERCE COUNTY
WASHINGTON

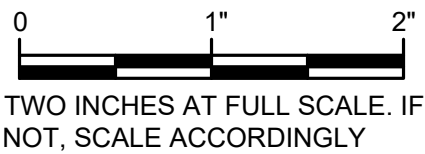
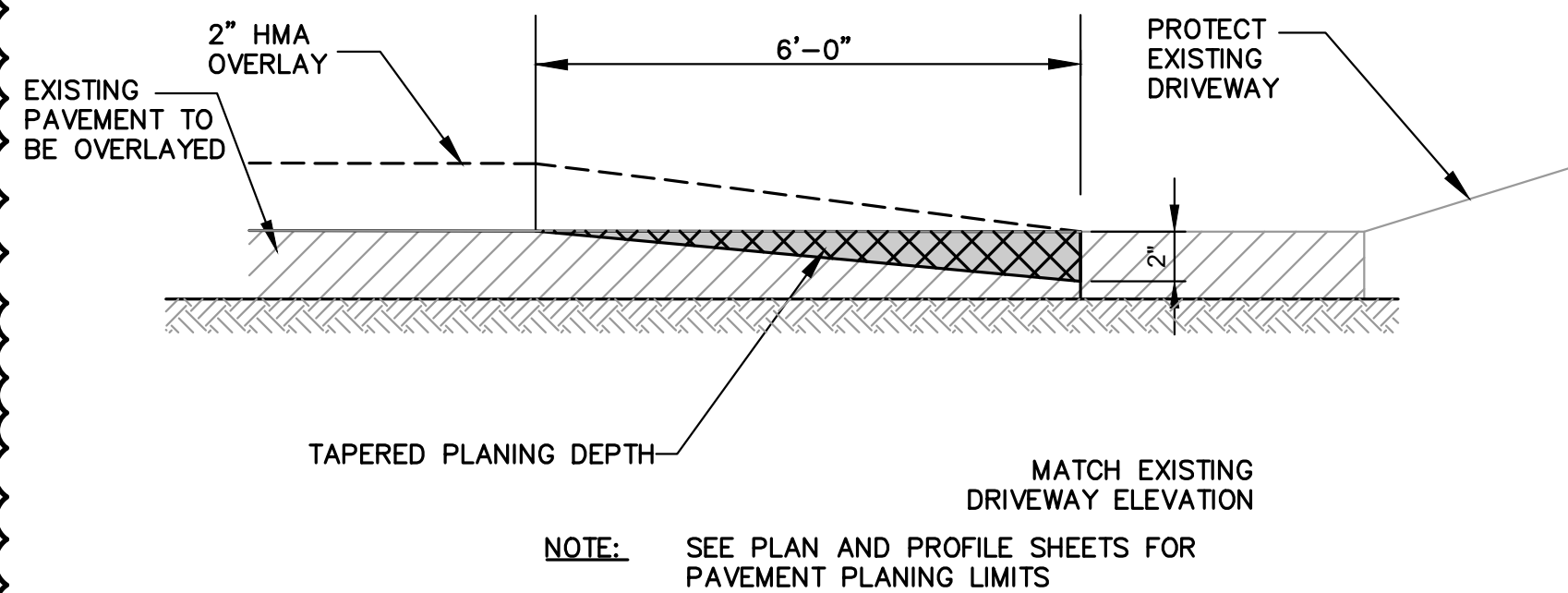
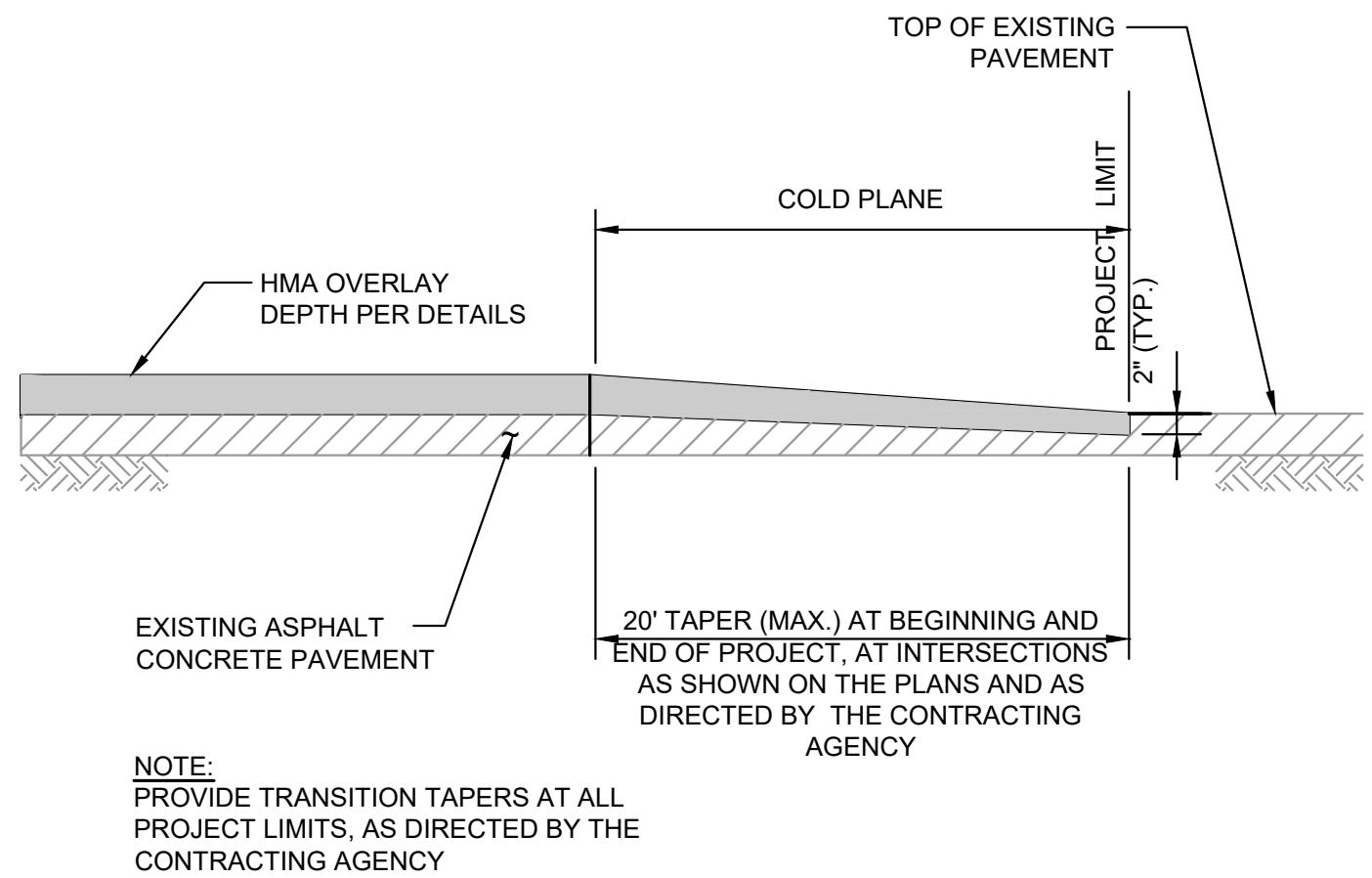
CHRISSELLA ROAD EAST SAFETY IMPROVEMENTS
GENERAL NOTES, SYMBOL LEGEND, AND ABBREVIATIONS

SHEET: 1 (G-1)
OF: 32
JOB NO.: 21621
DWG/LEGEND

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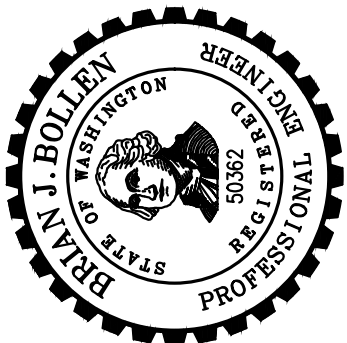


MATERIAL CODE AND NOTES	
(X)	DESCRIPTION
1	4-INCH COMPACTED DEPTH HMA, CONSTRUCTED IN TWO 2-INCH COURSES.
2	8-INCH COMPACTED DEPTH CRUSHED SURFACING BASE COURSE
3	STORM TRENCH PER DETAILS ON SHEET RD-3
4	4" PROFILED PLASTIC SOLID LINE PER WSDOT STANDARD PLAN M20-20.12
5	BUTT JOINT PER DETAIL ON SHEET RD-3
6	CLEAR AND GRUB DITCH AND SHOULDER AREA. FILL WITH GRAVEL BORROW
7	ROADWAY EXCAVATION, INCL. HAUL LIMITS
8	WEDGE CURB PER DETAIL SHEET RD-3
9	4" PERMEABLE BALLAST ROCK
10	2" COMPACTED DEPTH HMA OVERLAY
11	2" COMPACTED CRUSHED SURFACING BASE COURSE, TAPER TO MATCH EXISTING SHOULDER WITHIN 2 FEET WIDTH

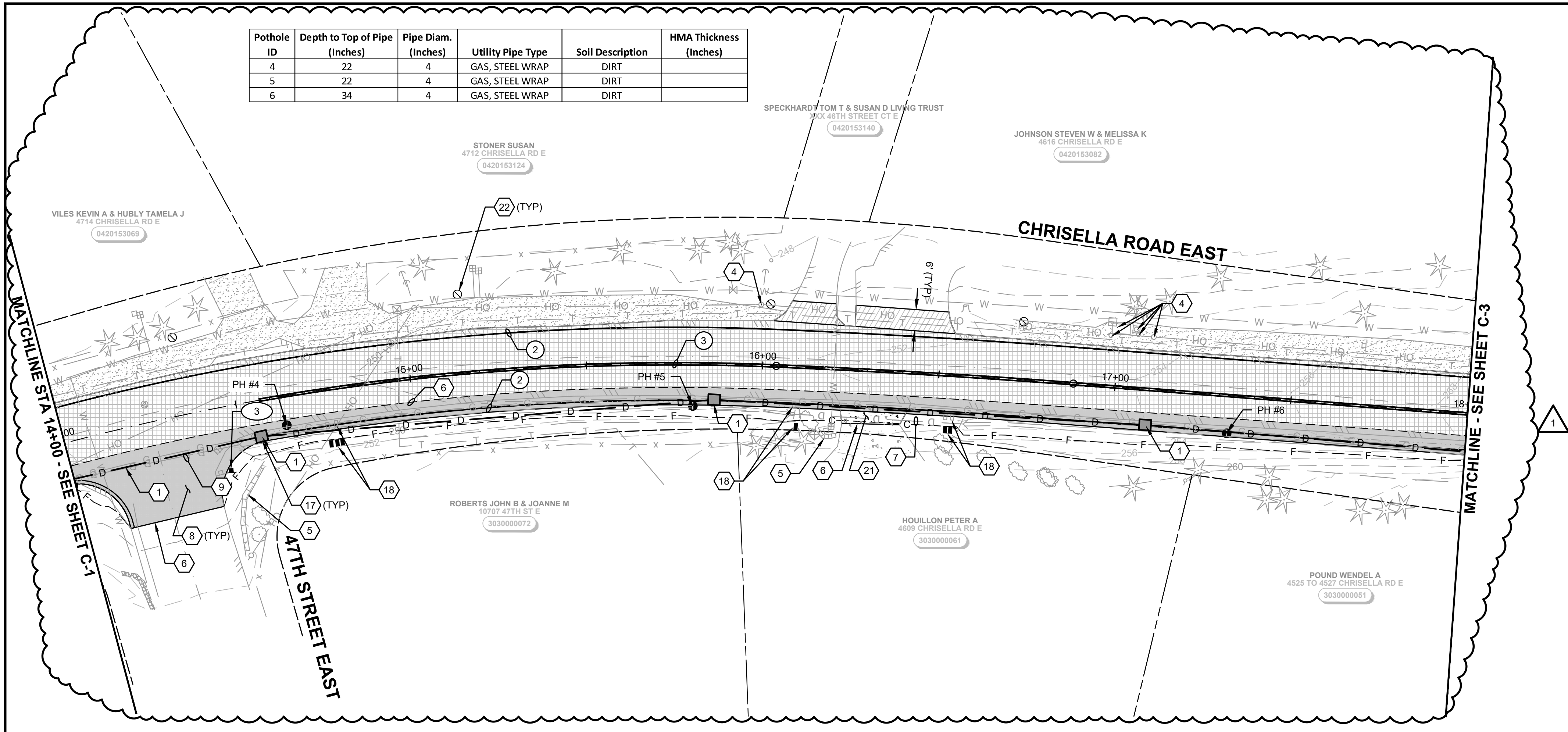


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ROADWAY & STORM DRAINAGE NOTES

- CAUTION: POTENTIAL UTILITY CONFLICT. VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK.
- EXISTING UTILITY TO BE REMOVED/RELOCATED BY OTHERS. COORDINATE WORK WITH UTILITY REPRESENTATIVE. SEE GENERAL NOTE 2, SHEET G-1.
- EXISTING UTILITY (VAULT OR MANHOLE) TO BE ADJUSTED TO GRADE BY OTHERS. COORDINATE WORK WITH UTILITY REPRESENTATIVE. SEE GENERAL NOTE 2 SHEET G-1.
- PROTECT EXISTING UTILITY (POLE, PEDESTAL, VAULT) DURING CONSTRUCTION. SEE GENERAL NOTE 2 SHEET G-1.
- PROTECT EXISTING CURB, SIDEWALK, FENCE, LUMINAIRE, WALL, TREE, MAILBOX, LANDSCAPING DURING CONSTRUCTION.
- SAWCUT EXISTING PAVEMENT AND SEAL JOINT (WHERE APPLICABLE) THEN APPLY SAND BLANKET TO THE SURFACE JOINT.
- PLUG EXISTING CULVERT PIPE PER THE CONTRACT PROVISIONS.
- REMOVE AND WASTEHAUL EXISTING CURB, GUTTER, SIDEWALK, PAVEMENT, RETAINING WALL, FENCE, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) AS REQUIRED. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURE AND OBSTRUCTION.
- REMOVE AND WASTEHAUL EXISTING STORM DRAINAGE STRUCTURE(S)/PIPE.
- CONNECT NEW STORM PIPE TO EXISTING CATCH BASIN. CORE DRILL IF KNOCK OUT IS NOT PRESENT.
- CONNECT NEW STORM PIPE TO EXISTING STORM PIPE.
- CONNECT EXISTING STORM PIPE TO NEW CATCH BASIN.
- ADJUST EXISTING CATCH BASIN TO GRADE.
- CONSTRUCT SOLID LID ON CATCH BASIN PER WSDOT STADARD PLAN B30.20-04.
- ADJUST EXISTING VALVE BOX TO GRADE.
- WATER COMPANY SHALL ADJUST EXISTING WATER BOX TO GRADE. COORDINATE WITH WATER COMPANY.
- FURNISH, INSTALL AND MAINTAIN STORM DRAIN INLET PROTECTION PER SHEET TE-1.
- REMOVE AND RELOCATE EXISTING MAILBOX(ES) PER WSDOT STANDARD PLAN H-70.10-02.
- CONSTRUCT TYPE 31-BEAM GUARDRAIL [NON-FLARED TERMINAL] PER WSDOT STANDARD PLANS C-20.10-07 AND C-22.45-05.
- CONSTRUCT HMA DRIVEWAY REPAIR PER DETAIL ON SHEET TS-1.
- CONSTRUCT CEMENT CONCRETE DRIVEWAY REPAIR PER DETAIL ON SHEET TS-1.
- CONSTRUCT FLEXIBLE GUIDE POST AND BARRIER DELINEATORS TYPE WW, PER WSDOT STANDARD PLAN M-40.10-03 ON SHEET RD-6. MOUNT DELINEATORS ON BEAM GUARDRAIL WHERE SHOWN. INSTALL GROUND MOUNT FLEXIBLE GUIDE POSTS IN ALL OTHER AREAS.

GENERAL

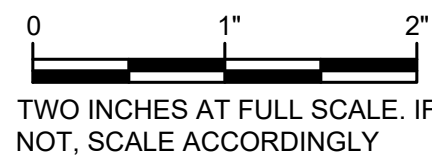
- ALL SIGN TYPES, COLORS, AND DIMENSIONS ARE STANDARD PER THE MUTCD, UNLESS OTHERWISE INDICATED.
- SIGNS SHALL BE CONSTRUCTED ENTIRELY OF TYPE III OR TYPE IV REFLECTIVE SHEETING PER WSDOT STANDARD SPECIFICATIONS SECTION 9-28.12.
- ALL PLASTIC PAVEMENT MARKINGS SHALL BE TYPE D-1 MMA UNLESS INDICATED OTHERWISE.
- FURNISH AND INSTALL TEMPORARY PAVEMENT MARKINGS IMMEDIATELY FOLLOWING PAVING.

CHANNELIZATION NOTES:

- REMOVE EXISTING PAVEMENT MARKINGS.
- FURNISH AND INSTALL PROFILED PLASTIC EDGE LINE PER WSDOT STANDARD PLAN M-20.20-02.
- FURNISH AND INSTALL PROFILED PLASTIC DOUBLE YELLOW CENTER LINE PER WSDOT STANDARD PLAN M-20.10-03 AND M-20.20-02.

SIGNING NOTES:

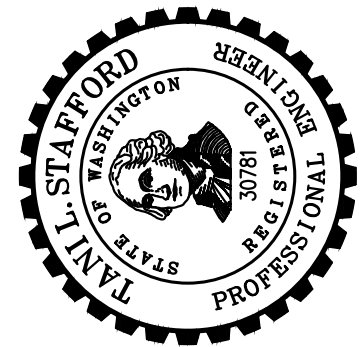
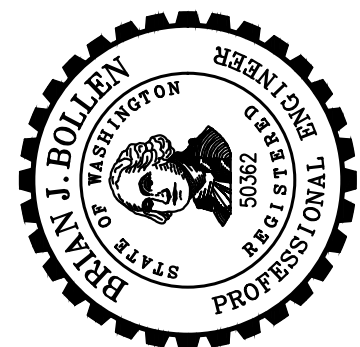
- PROTECT EXISTING SIGN DURING CONSTRUCTION.
- REMOVE AND WASTE HAUL EXISTING SIGN(S), POST AND FOUNDATION.
- RELOCATE EXISTING SIGN. FURNISH AND INSTALL NEW POST AND HARDWARE. WASTE HAUL EXISTING POST AND FOUNDATION.
- FURNISH AND INSTALL NEW SIGN(S) AND ST-2 POST [PER DETAIL SHEET CH-1].
- FURNISH AND INSTALL RADAR SPEED FEEDBACK SIGN.



Gray & Osborne, Inc.
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1100 RANIER AVENUE SOUTH, SUITE 300
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DATE:	JAN 2024	DRAWN:	RAH	CHECKED:	BLS	APPROVED:	TLS
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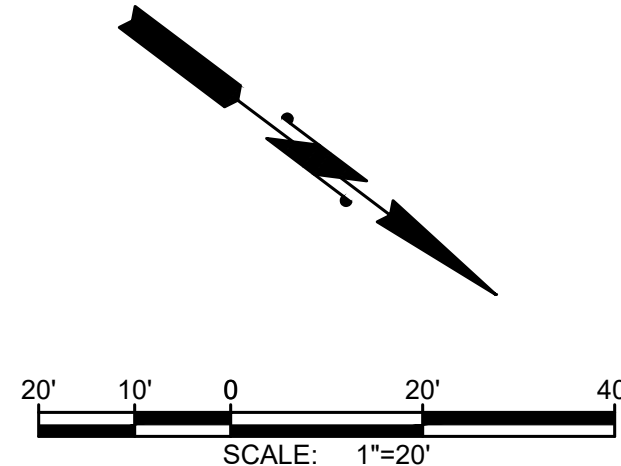
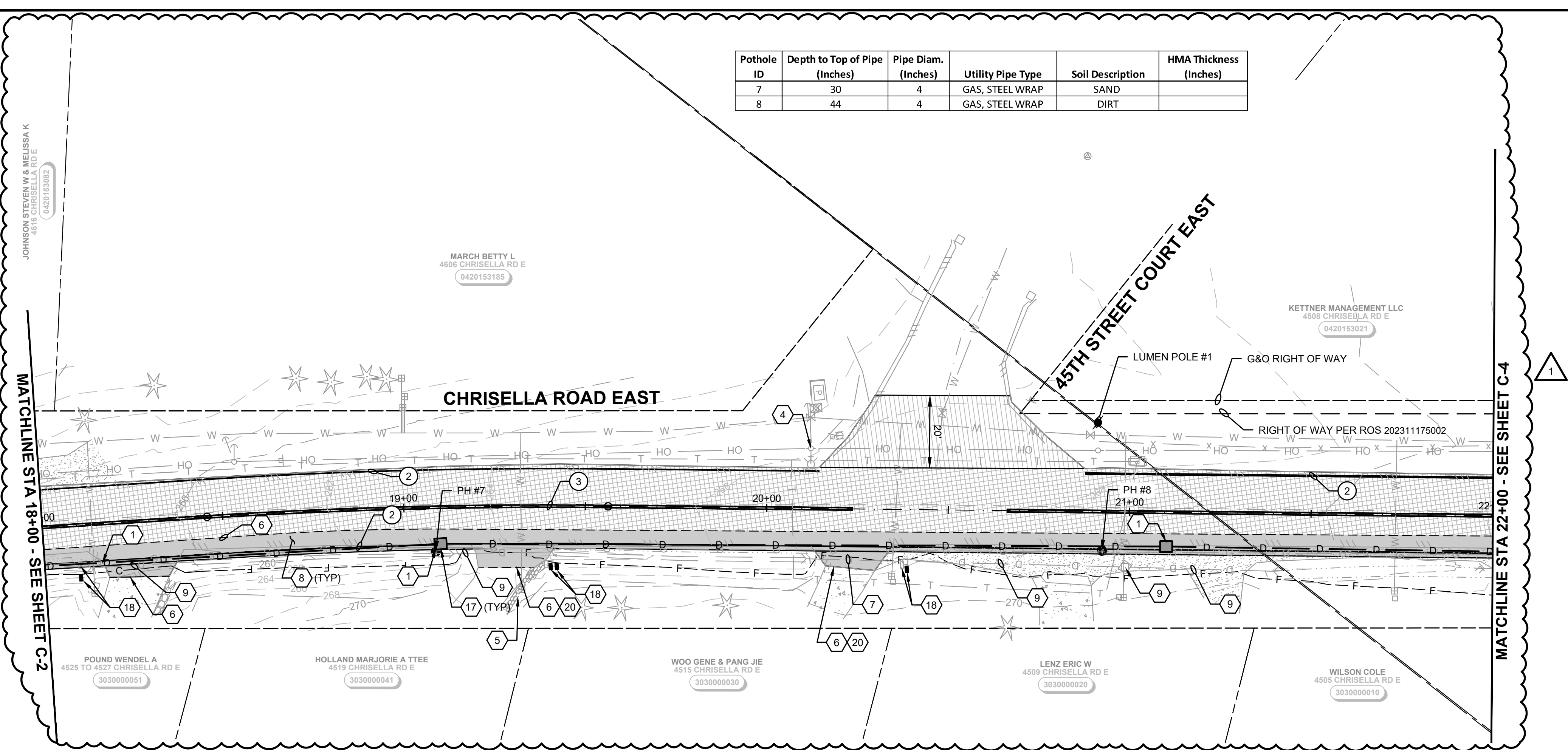


CITY OF EDGEWOOD
PIERCE COUNTY WASHINGTON
CHRISELLA ROAD EAST SAFETY IMPROVEMENTS
PLAN AND PROFILE - STATION 14+00 TO 18+00

SHEET: 9 (C-2)
OF: 32
JOB NO.: 21621
DWG PLAN

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Pothole ID	Depth to Top of Pipe (Inches)	Pipe Diam. (Inches)	Utility Pipe Type	Soil Description	HMA Thickness (Inches)
7	30	4	GAS, STEEL WRAP	SAND	
8	44	4	GAS, STEEL WRAP	DIRT	



ROADWAY & STORM DRAINAGE NOTES

- CAUTION: POTENTIAL UTILITY CONFLICT. VERIFY (POTHOLE) EXACT LOCATION AND DEPTH OF EXISTING UTILITY. SEE ORDER OF WORK.
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- REMOVE AND WASTEHAUL EXISTING STORM DRAINAGE STRUCTURE(S)/PIPE.
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- CONNECT NEW STORM PIPE TO EXISTING STORM PIPE.
- CONNECT EXISTING STORM PIPE TO NEW CATCH BASIN.
- ADJUST EXISTING CATCH BASIN TO GRADE.
- CONSTRUCT SOLID LID ON CATCH BASIN PER WSDOT STADARD PLAN B30.20-04.
- ADJUST EXISTING VALVE BOX TO GRADE.
- WATER COMPANY SHALL ADJUST EXISTING WATER BOX TO GRADE. COORDINATE WITH WATER COMPANY.
- FURNISH, INSTALL AND MAINTAIN STORM DRAIN INLET PROTECTION PER SHEET TE-1.
- REMOVE AND RELOCATE EXISTING MAILBOX(ES) PER WSDOT STANDARD PLAN H-70.10-02.
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GENERAL

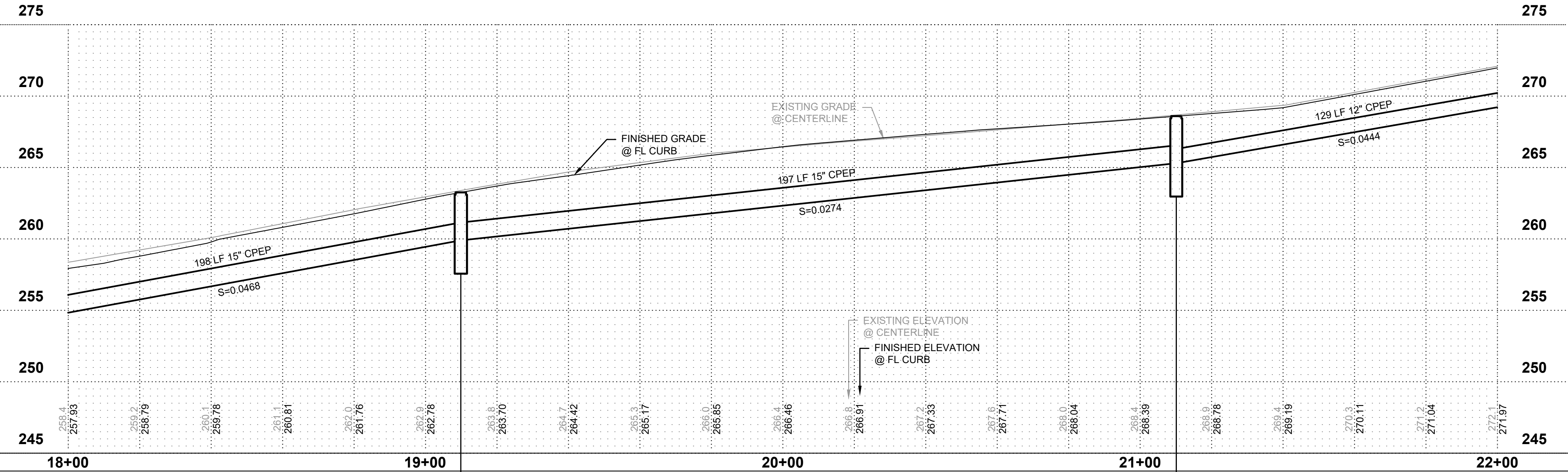
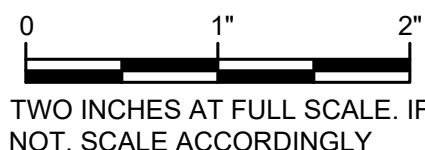
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CB TYPE II, CB NO. 42
STA 18+00 TO 18+43 RT
IE=258.90 15" CPEP SE
IE=259.90 15" CPEP NW

CB TYPE II, CB NO. 43
STA 21+10.2 TO 21+11 RT
IE=268.70 15" CPEP SE
IE=265.30 12" CPEP NW

Gray & Osborne, Inc.
CONSULTING ENGINEERS
1100 RANIER AVENUE SOUTH, SUITE 300
SEATTLE, WASHINGTON 98144 • (206) 264-0860

DATE: JAN 2024	DRAWN: RAH	CHECKED: BLS	APPROVED: TLS
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	TLS	APPD
CHANGE ORDER NO. 1	05/06	
REVISION		
1		No.

CITY OF EDGEWOOD
PIERCE COUNTY
WASHINGTON

CHRISSELLA ROAD EAST SAFETY IMPROVEMENTS

PLAN AND PROFILE - STATION 18+00 TO 22+00

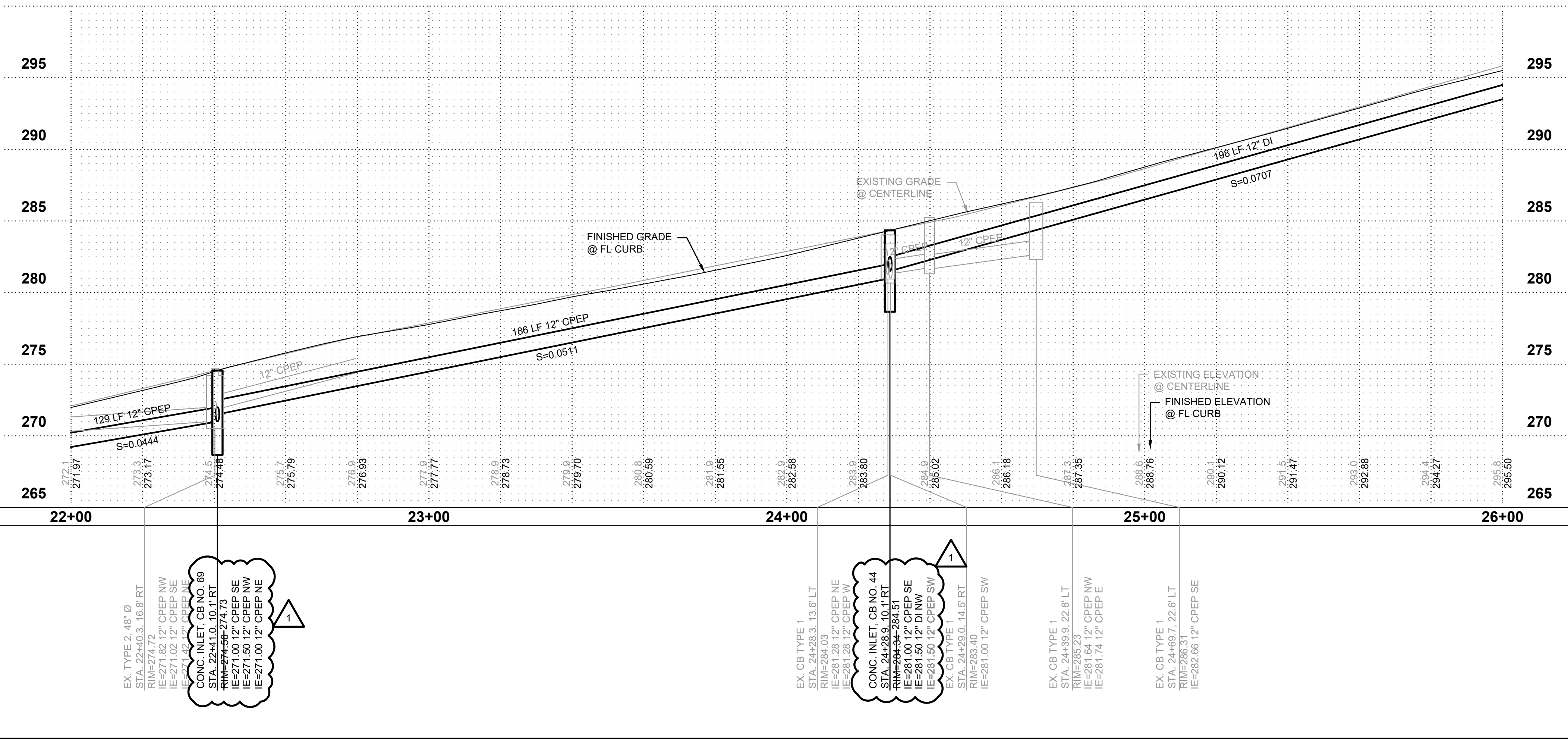
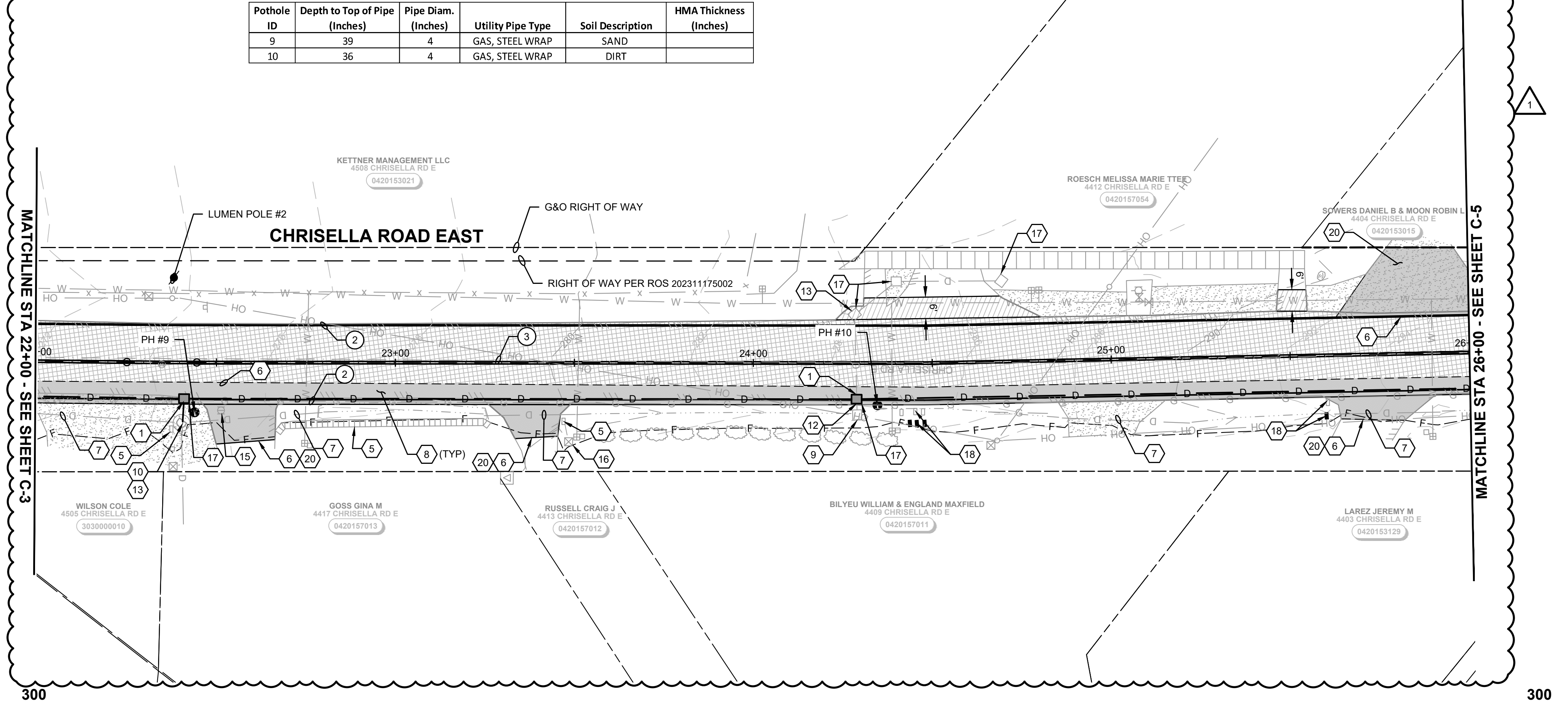
SHEET: **10 (C-3)**

OF: **32**

JOB NO.: 21621

DWG PLAN

L:\EDGEWOOD\21621 Chrissella Rd E Safety\01 Design Phase\PLANSET\Civil\PLAN.dwg, 5/7/2024, 10:28 AM, MARK NAGEL



ROADWAY & STORM DRAINAGE NOTES

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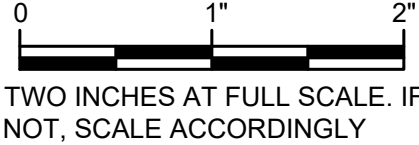
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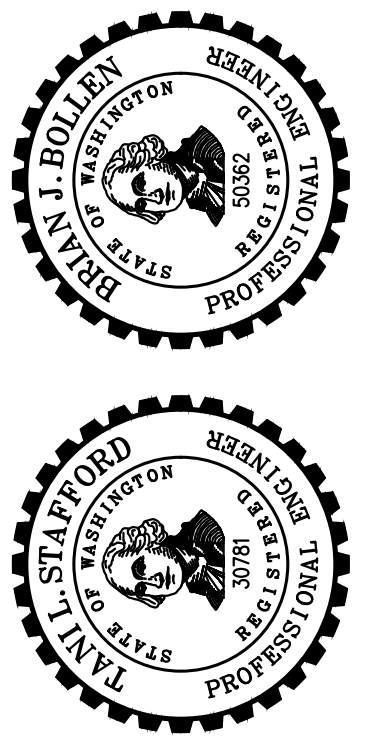
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DATE:	JAN 2024	DRAWN:	RAH	CHECKED:	BLS	APPROVED:	TLS
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CHANGE ORDER NO. 1	TLS	DATE	APPD
	05/06		
	1	REVISION	No.



Pothole ID	Depth to Top of Pipe (Inches)	Pipe Diam. (Inches)	Utility Pipe Type	Soil Description	HMA Thickness (Inches)
11	37	4	GAS, STEEL WRAP	DIRT	
12	30	2	GAS, STEEL WRAP	DIRT	
13	34	4	GAS, STEEL WRAP	DIRT/ROCKS	
14	26	2	GAS, STEEL WRAP	DIRT/ROCKS	

BALDRIDGE GARY P & MARY A
4320 CHRISSELLA RD E
0420157049

SOWERS DANIEL B & MOON ROBIN L
4404 CHRISSELLA RD E
0420153015

BEGIN GUARDRAIL TERMINAL
STA 27+50.65 - 15.65' LT

CHRISSELLA ROAD EAST

END GUARDRAIL TERMINAL
STA 27+87.55 - 14.65' LT

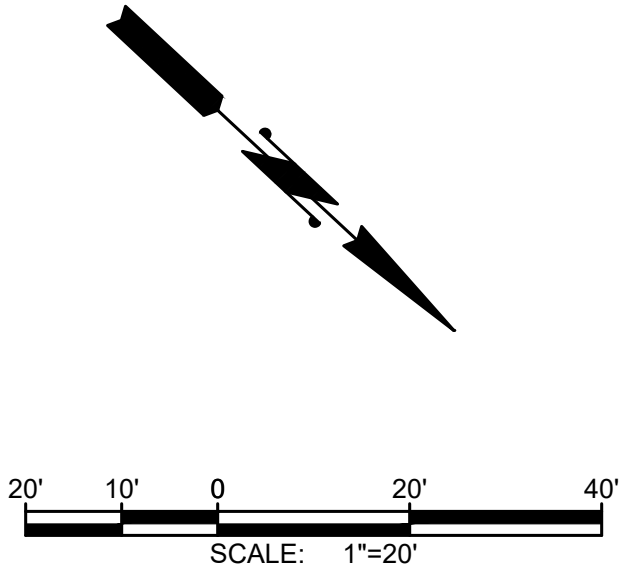
COLLINS MARLIN G & PRECHT CHARISSE EE
4327 CHRISSELLA RD E
3025000020

GIUGLER LORI A & JOHNSON STEVEN S
10502 43RD STREET CT E
3025000030

GREER ROSEMARY & PRECHT CHARISSE CO-TTEE
10510 43RD STREET CT E
3025000010

LAREZ JEREMY M
4403 CHRISSELLA RD E
0420153129

CHMYR NIKOLAY & MARIYA
4329 TO 4335 CHRISSELLA RD E
0420153041



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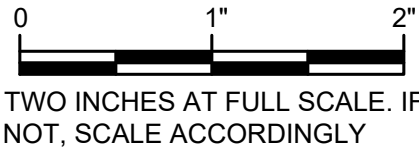
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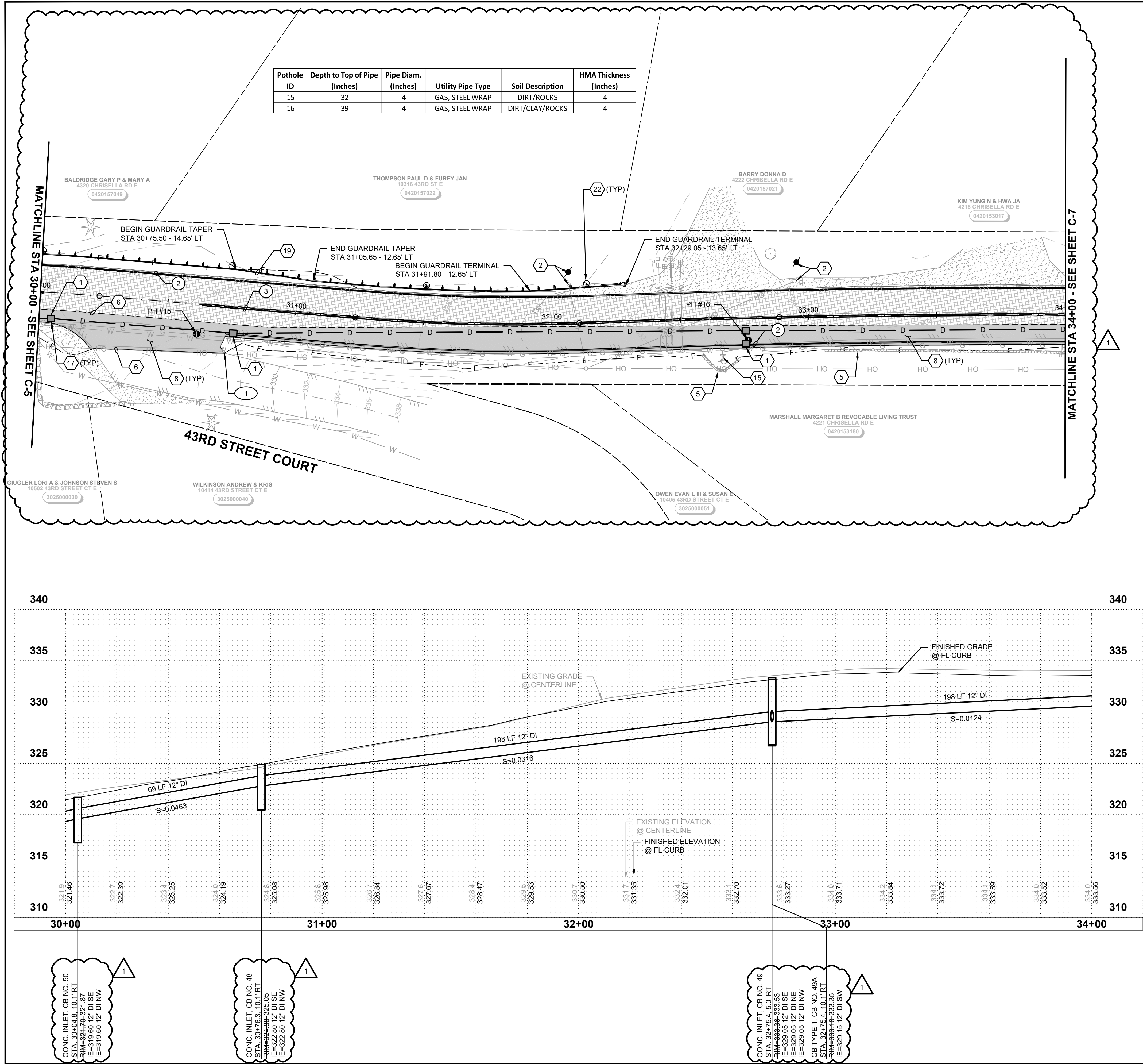


DATE:	JAN 2024	DRAWN:	RAH	CHECKED:	BLS	APPROVED:	TLS
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CHANGE ORDER NO. 1	REVISION	
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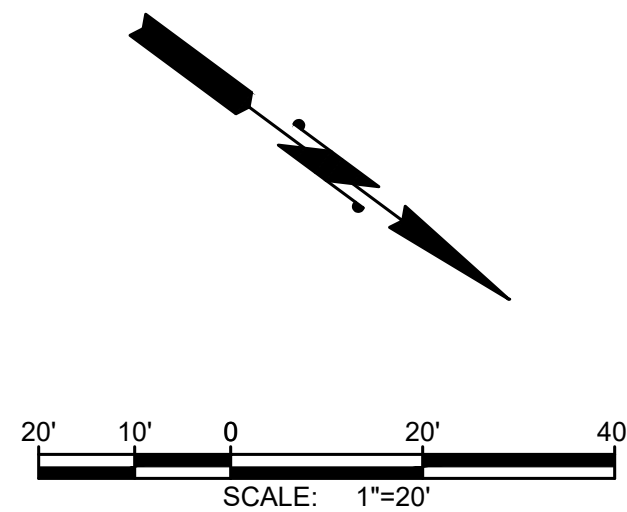
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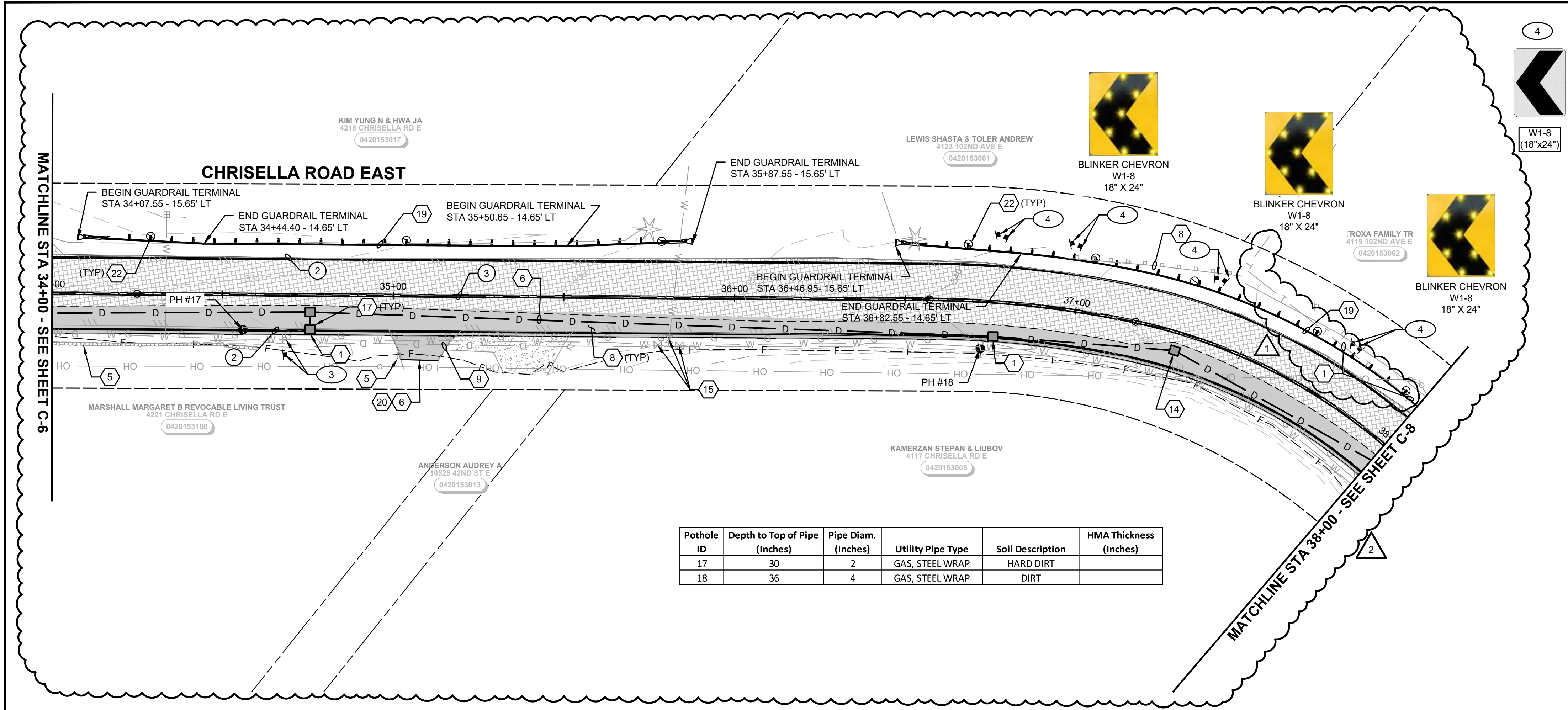


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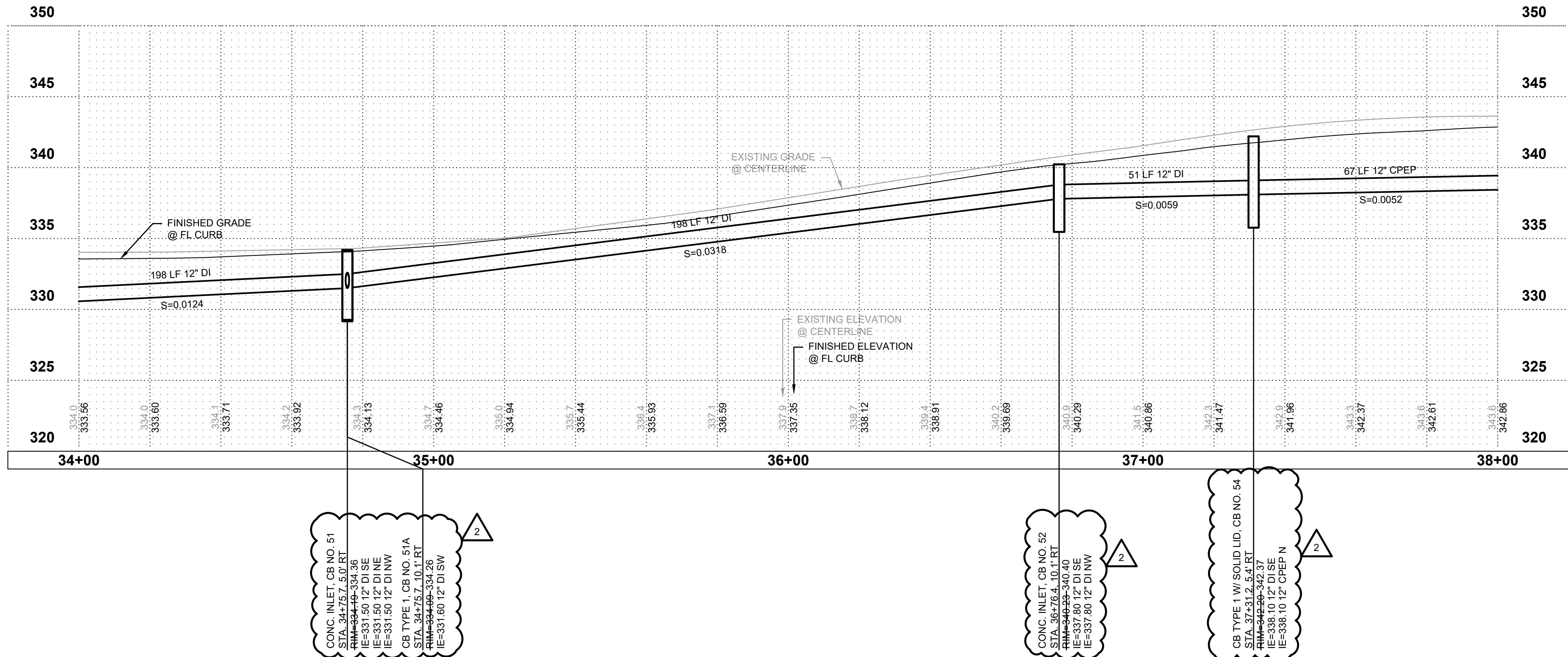
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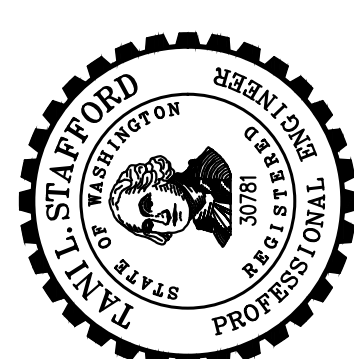


0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

DATE:	JAN 2024	DRAWN:	RAH	CHECKED:	BLS	APPROVED:	TLS
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CHANGE ORDER NO. 1	TLS	
ADDENDUM 2	REVISION	
2	1	No.



SHEET: **14 (C-7)**

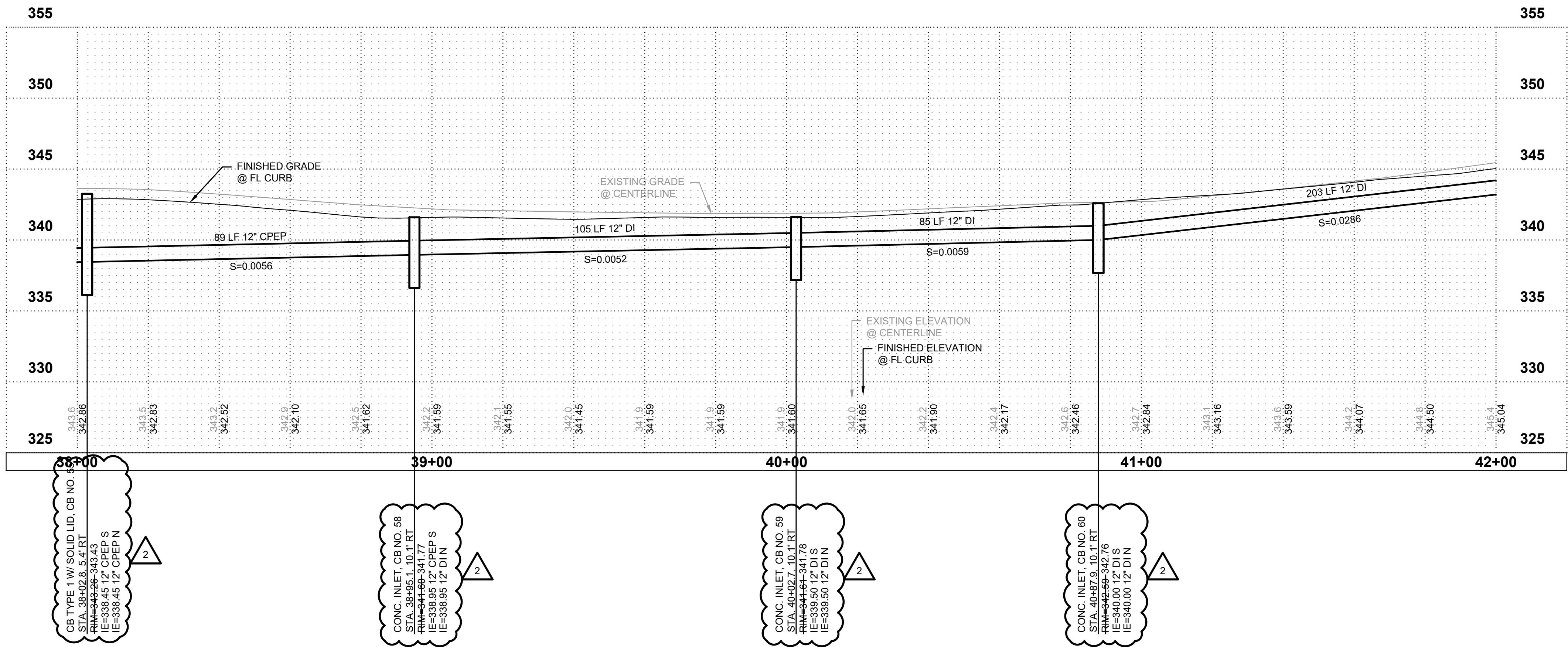
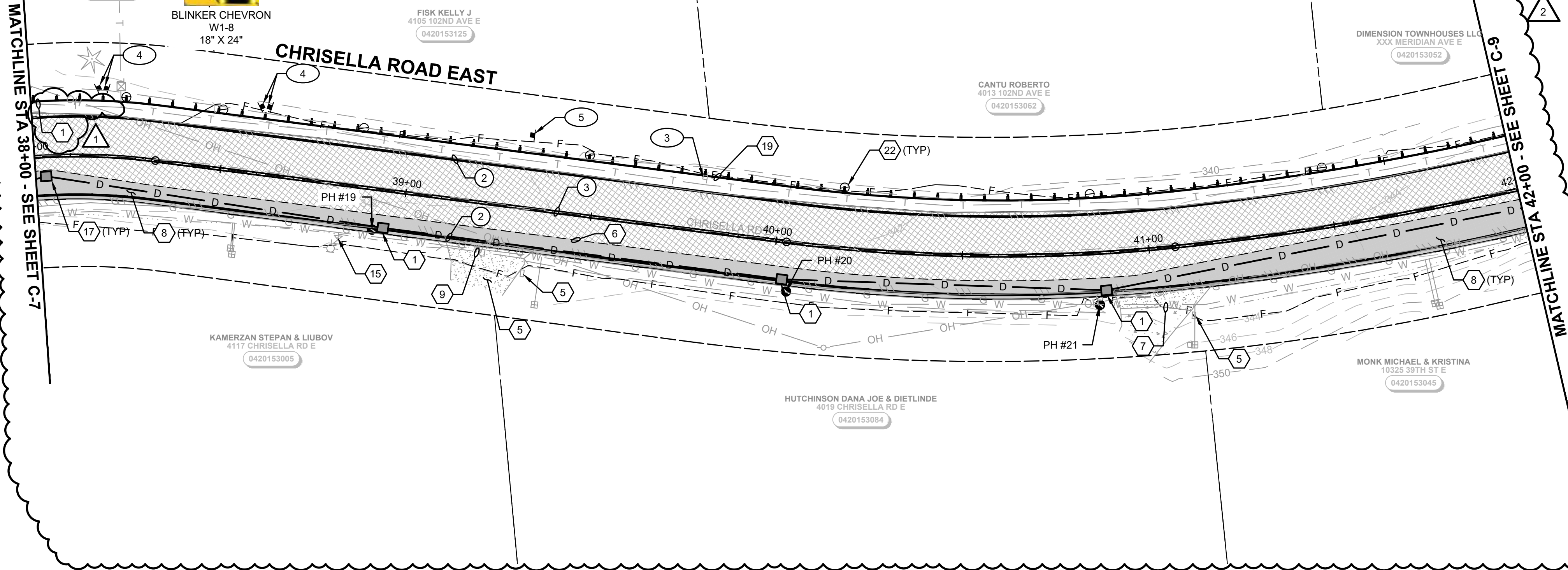
OF: **32**

JOB NO.: 21621

DWG PLAN

L:\EDGEWOOD\21621 Chrissella Rd E Safety\01 Design Phase\PLANSET\CV\PLAN.dwg, 5/7/2024 10:28 AM, MARK MAGEL

Pothole ID	Depth to Top of Pipe (Inches)	Pipe Diam. (Inches)	Utility Pipe Type	Soil Description	HMA Thickness (Inches)
19	39	4	GAS, STEEL WRAP	DIRT	
20	44	4	GAS, STEEL WRAP	DIRT/ROCKS	
21	46	4	GAS, STEEL WRAP	DIRT/ROCKS	



ROADWAY & STORM DRAINAGE NOTES

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- EXISTING UTILITY TO BE REMOVED/RELOCATED BY OTHERS. COORDINATE WORK WITH UTILITY REPRESENTATIVE. SEE GENERAL NOTE 2, SHEET G-1.
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- PLUG EXISTING CULVERT PIPE PER THE CONTRACT PROVISIONS.
- REMOVE AND WASTEHAUL EXISTING CURB, GUTTER, SIDEWALK, PAVEMENT, RETAINING WALL, FENCE, GUARDRAIL PER THE SPECIFICATIONS. COORDINATE WITH PROPERTY OWNER(S) AS REQUIRED. THIS WORK TO BE INCLUDED IN REMOVAL OF STRUCTURE AND OBSTRUCTION.
- REMOVE AND WASTEHAUL EXISTING STORM DRAINAGE STRUCTURE(S)/PIPE.
- CONNECT NEW STORM PIPE TO EXISTING CATCH BASIN. CORE DRILL IF KNOCK OUT IS NOT PRESENT.
- CONNECT NEW STORM PIPE TO EXISTING STORM PIPE.
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- ADJUST EXISTING CATCH BASIN TO GRADE.
- CONSTRUCT SOLID LID ON CATCH BASIN PER WSDOT STADARD PLAN B30.20-04.
- ADJUST EXISTING VALVE BOX TO GRADE.
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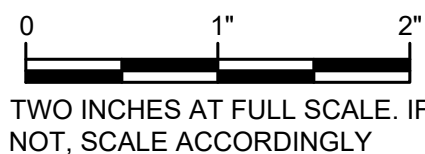
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DATE:	JAN 2024	DRAWN:	RAH	CHECKED:	BLS	APPROVED:	TLS
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CHANGE ORDER NO. 1	TLS	DATE	APPD
ADDENDUM 2	TLS	11/27	
REVISION			
No.	2	1	

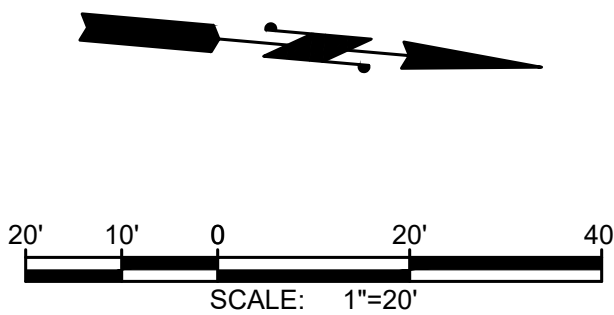


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22	40	4	GAS, STEEL WRAP	DIRT/ROCKS	
23	40	4	GAS, STEEL WRAP	DIRT/ROCKS	

MATCHLINE STA 42+00 - SEE SHEET C-8

MATCHLINE STA 46+00 - SEE SHEET C-10



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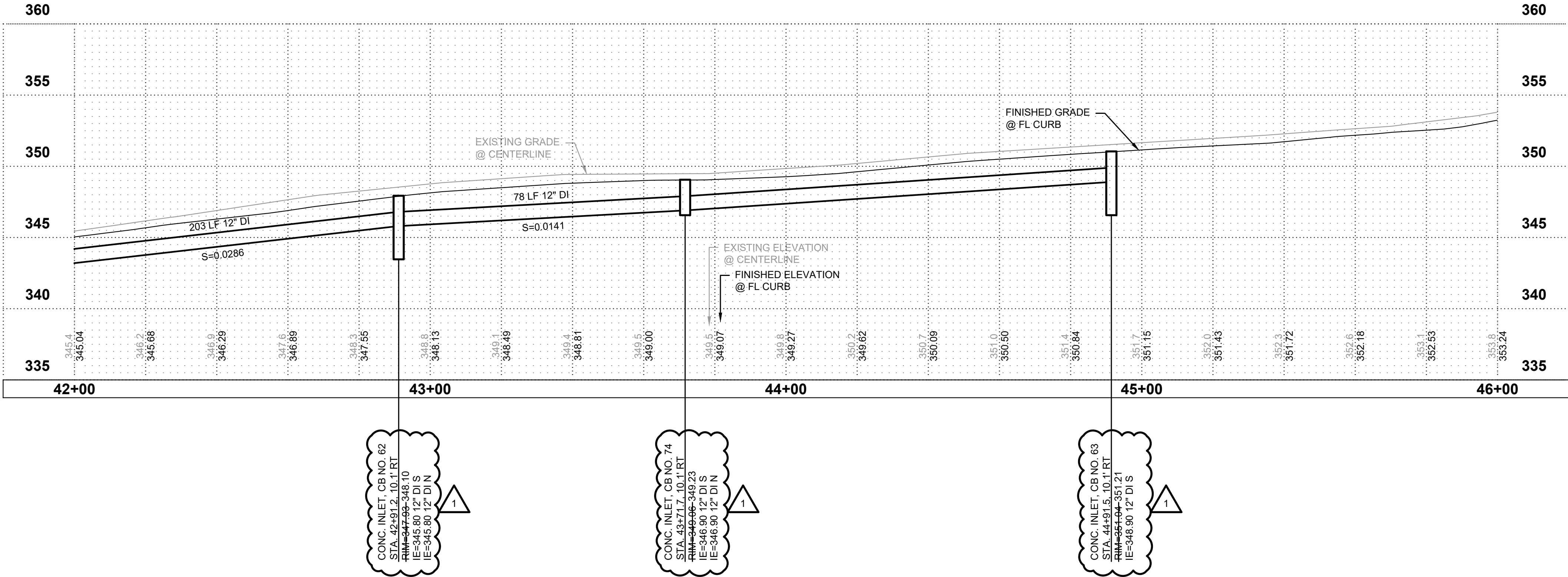
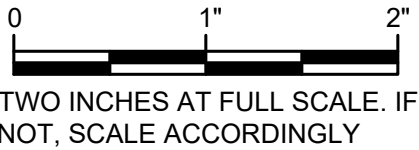
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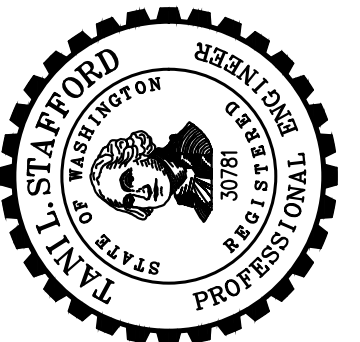
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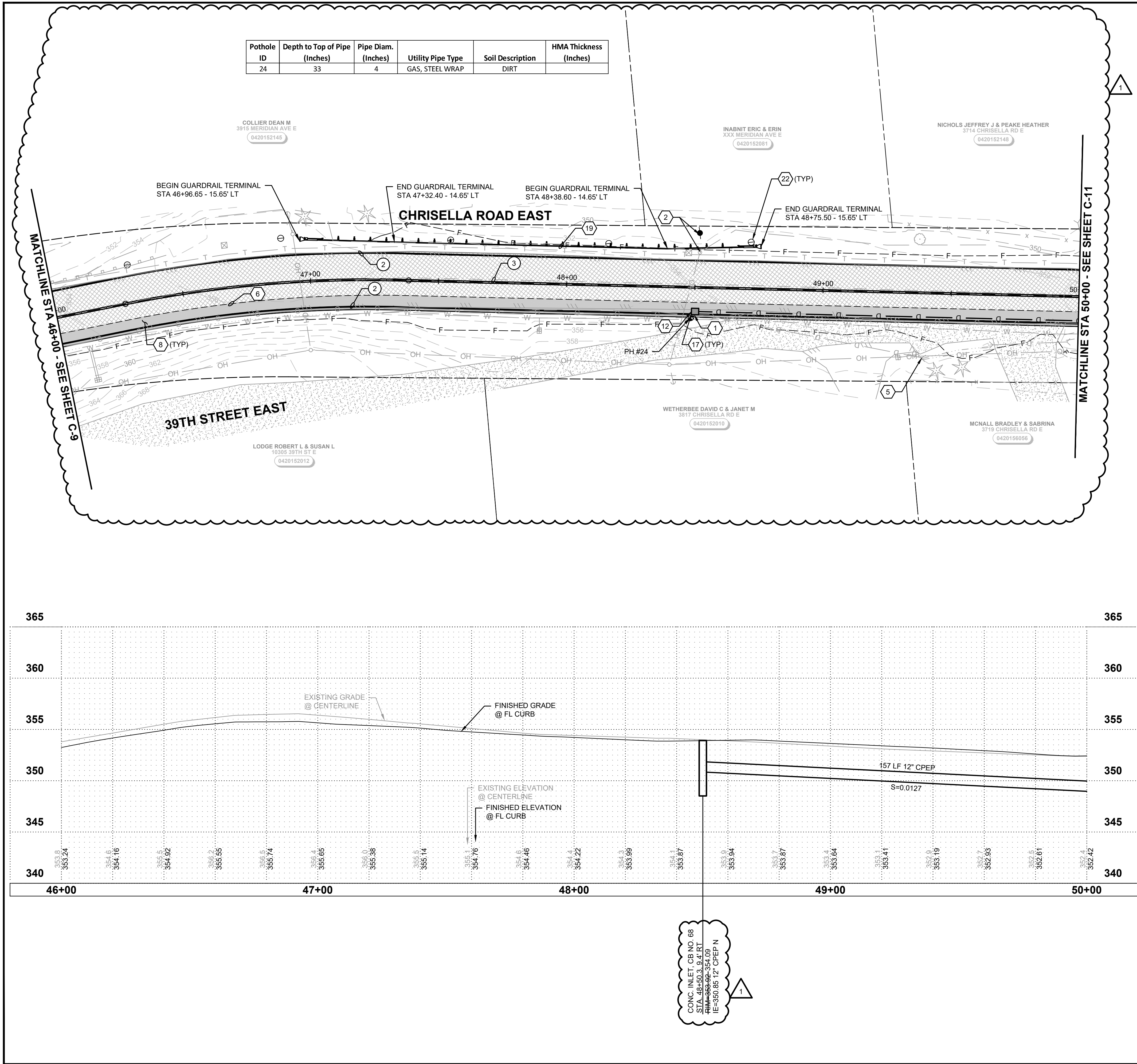
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1	REVISION	DATE	APPD
1	No.	DATE	APPD



CITY OF EDGEWOOD
PIERCE COUNTY
WASHINGTON
CHRISSELLA ROAD EAST SAFETY
IMPROVEMENTS
PLAN AND PROFILE - STATION 42+00 TO 46+00

SHEET: 16 (C-9)
OF: 32
JOB NO.: 21621
DWG PLAN

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Gray & Osborne, Inc.
CONSULTING ENGINEERS
1100 RANIER AVENUE SOUTH, SUITE 300
SEATTLE, WASHINGTON 98144 • (206) 264-0860

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CITY OF EDGEWOOD
PIERCE COUNTY
WASHINGTON

CHRISELLA ROAD EAST SAFETY IMPROVEMENTS

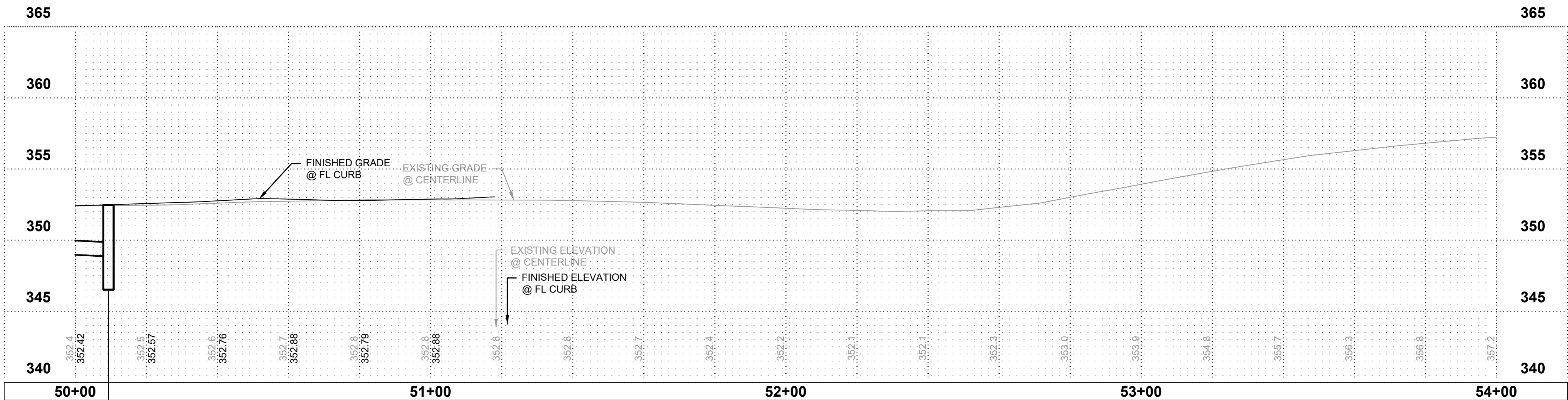
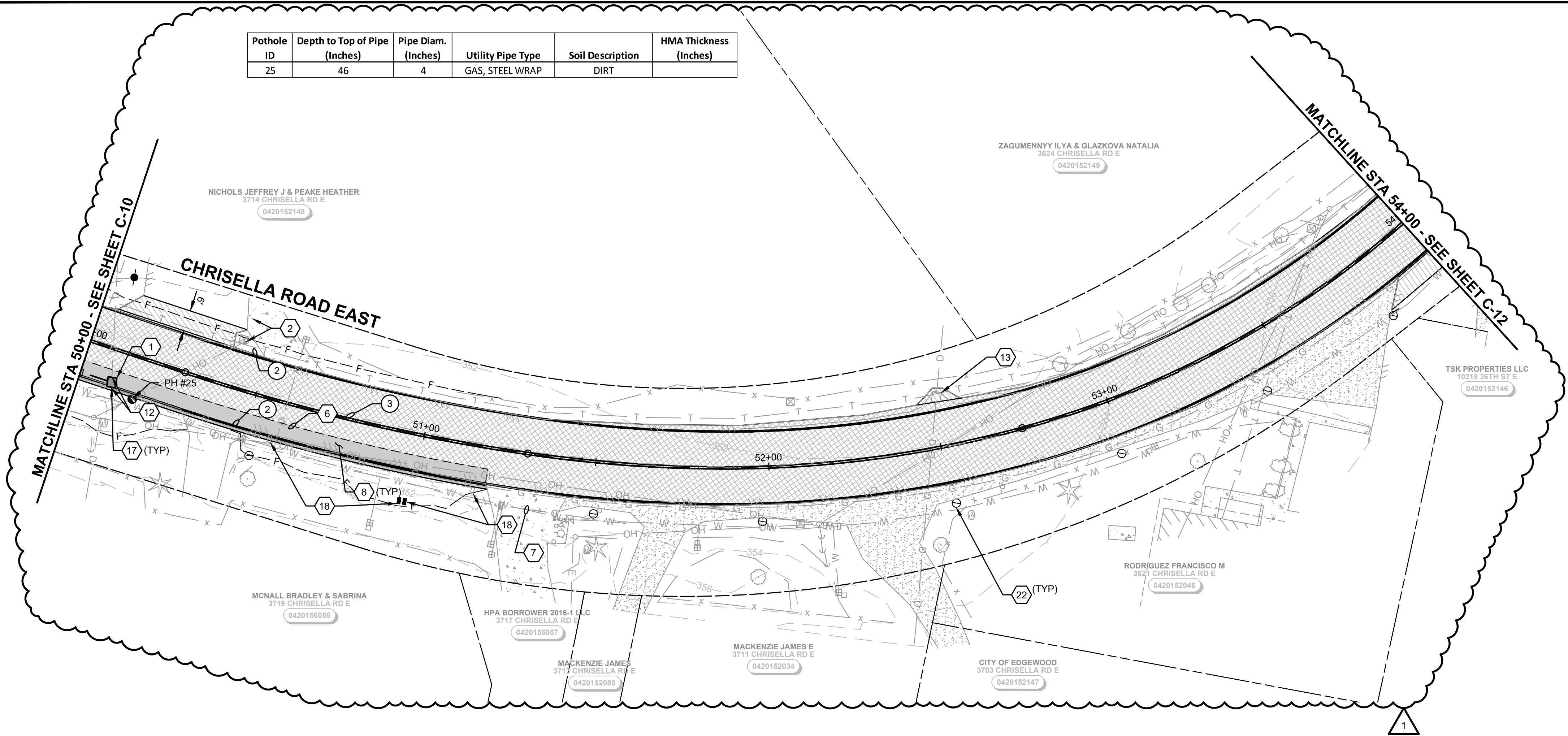
PLAN AND PROFILE - STATION 46+00 TO 50+00

SHEET **17 (C-10)**
OF: **32**

JOB NO.: 21621
DWG PLAN

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Pothole ID	Depth to Top of Pipe (Inches)	Pipe Diam. (Inches)	Utility Pipe Type	Soil Description	HMA Thickness (Inches)
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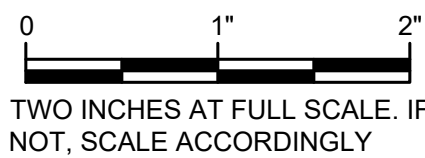
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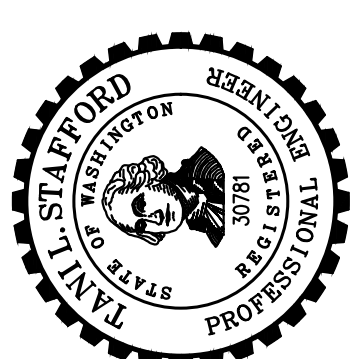
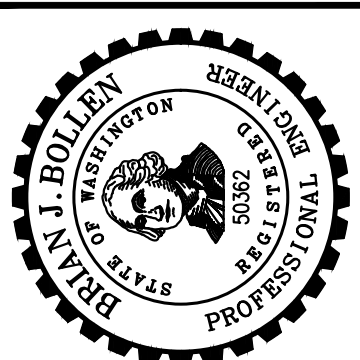




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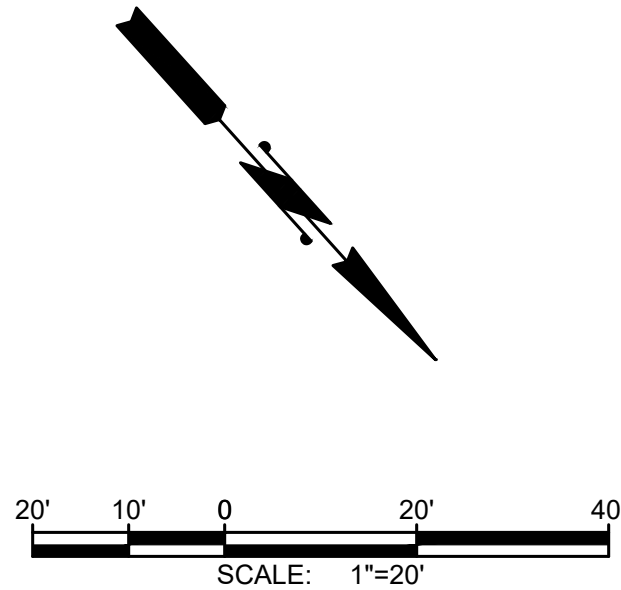
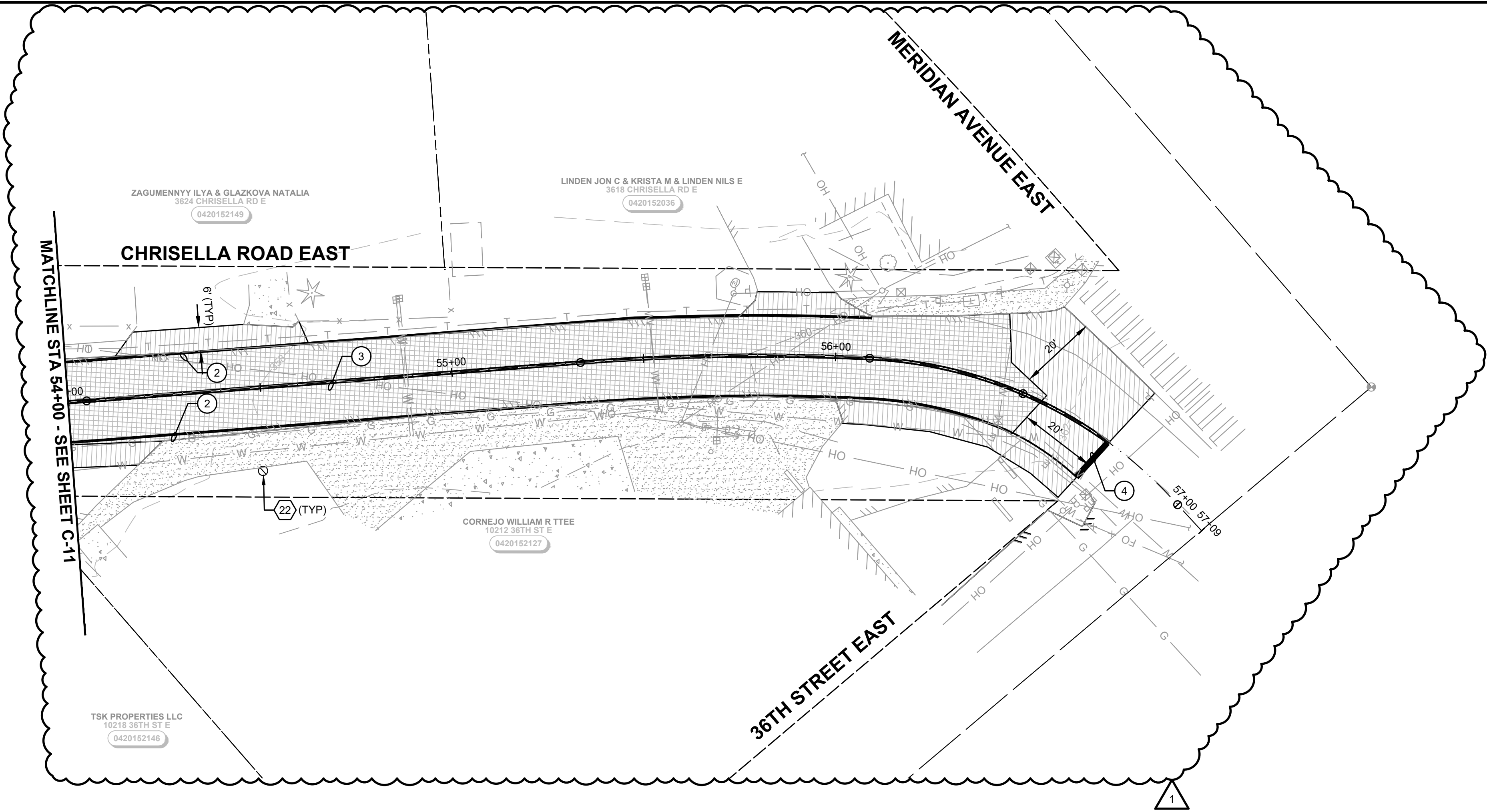
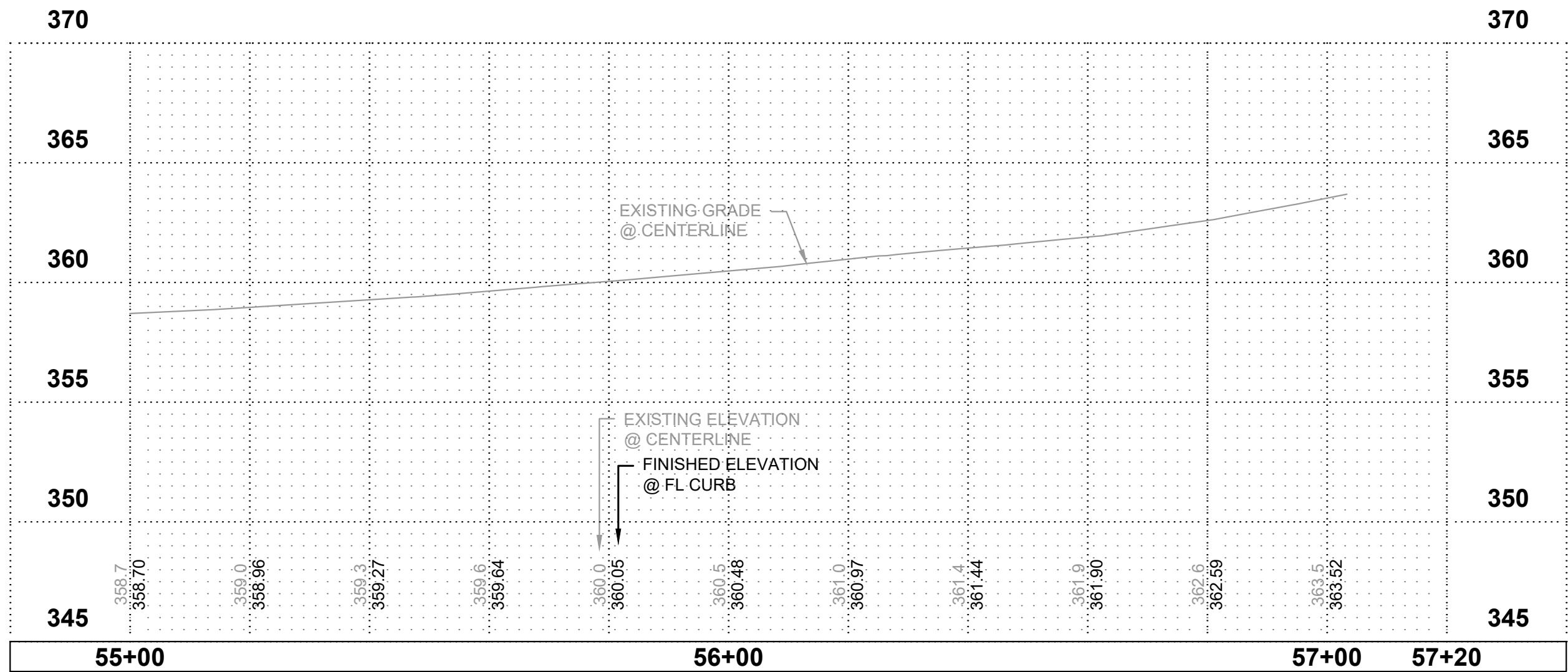
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CHANGE ORDER NO. 1	05/06	TLS
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CITY OF EDGEWOOD
PIERCE COUNTY WASHINGTON
CHRISSELLA ROAD EAST SAFETY IMPROVEMENTS
PLAN AND PROFILE - STATION 50+00 TO 54+00

SHEET	18 (C-11)
OF:	32
JOB NO.:	21621
DWG PLAN	

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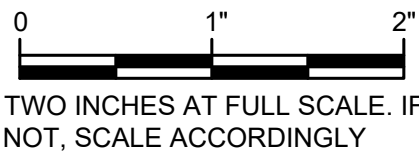
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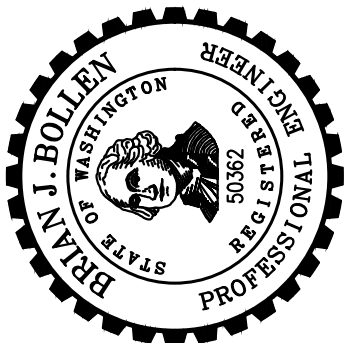
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	TLS	APPD
	05/06	DATE
CHANGE ORDER NO. 1	REVISION	
1	No.	





City Of Edgewood Council Agenda Summary Sheet

Subject: Interurban Trail Phase III Funding	Agenda Item #: 2.F
	For Agenda of: 8/20/2024
	Prepared by: Chuck Hendricksen
Attachments (list): 1. Narrative for Discussion	
Approval of Materials: Chuck Hendricksen Rachel Pitzel, Assistant City Administrator 8/14/2024 Dave Olson 8/14/2024	Expenditure Required:
	Amount Budgeted:
	Timeline: 08/20/2022 Study Session Discussion

Summary Statement:

Discussion is an update on the Interurban Trail. Staff is looking for guidance on moving forward. Attached is the history.

Item History:**Recommended Action:**

Hold a discussion and provide staff direction to Interurban Trail Phase III Funding

Fiscal Note/Consideration:

November 15, 2023 – City Council passed Ordinance 23-0651, approving the 2024-2029 CIP; Project P-1 (Interurban Trail Phase III Design / Construction) was programmed with the following anticipated revenue sources:

	2024	2025	2026	2027	Totals
Grant Revenues	\$ 402,400	\$ 1,083,300	\$ 2,822,800	\$ 1,411,400	\$5,719,900
Traffic Impact Fee	\$ 48,800	\$ 208,350	\$ 588,600	\$ 294,300	\$1,140,050
Park Impact Fee	\$ 48,800	\$ 208,350	\$ 588,600	\$ 294,300	\$1,140,050
Total Revenues	\$500,000	\$1,500,000	\$4,000,000	\$2,000,000	\$8,000,000

This includes \$436,825 in federal funding for the design phase.

March 2024 – Received updated 30% Construction Cost Estimate from consultant, considerably higher budget than previously anticipated, requested thorough review and fine tuning

June 2024 – Met with RCO to discuss project and timing concerns, discovered RCO grant cannot be used for a “design-only” effort, must include construction, decision made to delay reimbursement request(s) to construction phase, may need to cancel grant agreement and re-apply for funds

July 2024 – Updated funding strategy, focusing remaining grant awards on construction phase, considering use of local funds for remaining design effort:

	Design	Construction	Total
Federal (Awarded)	\$ 436,825	\$ 2,480,000	\$ 2,916,825
State (Awarded) ¹		\$ 3,000,000	\$ 3,000,000
Other Grants (Applied for)		\$ 15,000,000	\$ 15,000,000
Donations Received	\$ 34,106		\$ 34,106
Traffic Impact Fees²	\$ 407,000	\$ 1,902,814	\$ 2,309,814
Park Impact Fees	\$ 1,157,145		\$ 1,157,145
Totals	\$ 2,035,076	\$ 22,382,814	\$ 24,417,890

The red numbers above are proposed local fund amounts, subject to further conversation and authorization by the City Council. Comparing what was authorized under the 2024-2029 CIP to the latest project funding breakdown summarized above:

Local Fund Source	2024-2029 CIP	July 2024 Update	Difference	
Traffic Impact Fees	\$ 1,140,050	\$ 2,309,814	\$ 1,169,764	+102.6%
Park Impact Fees	\$ 1,140,050	\$ 1,157,145	\$ 17,095	+1.5%

¹ These funds are from the Recreation and Conservation Office (RCO) and will have to be returned if construction is not ready to proceed in 2026.

² Traffic Impact Fees are limited to 20% of the total project cost by the current TIF Project List and Program. The amount in the design column is 20% of the total design cost. The amount in the construction column is the remaining funds needed if the pending grant applications are fully funded.

This demonstrates a nominal increase in total anticipated Park Impact Fee funding for this project, but slightly more than double the previously anticipated Traffic Impact Fee funding.

The total Traffic Impact Fee fund balance is currently more than \$5M. Looking at the other transportation projects listed in the CIP, there are \$3.7M in total Traffic Impact Fees programed through 2027. We are currently behind schedule on implementing Projects T-10 and P-3 due to lack of staffing bandwidth. \$1.5M of the \$3.7M total is earmarked for Project T-10 (parallel roads), and that effort is also dependent on grant funding that has cannot be applied for until construction plans are developed, so it is likely delayed for at least one more year, if not more. Therefore, this proposed increase in Traffic Impact Fees for the Interurban Trail is not likely to delay any other transportation projects currently listed in the CIP.

The total Park Impact Fee fund balance is currently about \$1M, after considering the recent purchase of the Nyholm Windmill. Looking at the other park projects listed in the CIP, there are \$2.5M in total Park Impact Fees programed through 2027 (excluding acquisitions, due to the windmill purchase). We are currently working on Project P-9 (Wolf Point Trail), wrapping up 30% design and coordinating with the landowner on acquisition, anticipating that total effort to be between \$40K and \$100K. We are behind schedule on implementing Project P-3 due to lack of staffing bandwidth. \$838K of the \$2.5M total is earmarked for Project P-3 (multimodal loop), and that effort is also dependent on grant funding that has cannot be applied for until construction plans are developed, so it is likely delayed for at least one more year, if not more.

Therefore, if \$1.16M of Park Impact Fee funding is directed to the Interurban Trail, Projects P-3 (multimodal loop) and P-9 (Wolf Point Trail) would be delayed until additional Park Impact Fees or other funding sources became available. Relying on Park Impact Fees alone, based on recent receipts, that could be more than three years.

One final note to make about proceeding with design of the Interurban Trail at this time: Proceeding with design will certainly limit our ability to work on other park projects in the short term, but we have a much stronger case for requesting external funding for the construction effort if we have construction plans and permits ready to go (aka, shovel ready).



City Of Edgewood Council Agenda Summary Sheet

Subject: Surface Water Rate Code Update	Agenda Item #: 2.G
	For Agenda of: 8/20/2024
	Prepared by: Chuck Hendricksen
Attachments (list):	
Approval of Materials: Chuck Hendricksen Rachel Pitzel, Assistant City Administrator 8/14/2024 Dave Olson 8/14/2024	Expenditure Required:
	Amount Budgeted:
	Timeline: 08/20/2024 Study Session Discussion

Summary Statement:

Bringing this item back for discussion. Staff is looking for guidance from council on whether or not to pursue a rate increase at this time for surface water fees.

Item History:**Recommended Action:**

Hold a discussion and provide staff direction to Surface Water Rate Code Update

Fiscal Note/Consideration: