Richmond, Vermont

RICHMOND - COCHRAN ROAD SCOPING STUDY

MAY 2025

PREPARED FOR:



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1 INTRODUCTION

The Chittenden County Regional Planning Commission (CCRPC), in partnership with the town of Richmond, is conducting the Cochran Road Corridor Study. The Scoping Study for the corridor has been completed by WSP USA (WSP) in support of that effort. The purpose of the Scoping Study was to identify and develop recommendations based on the Purpose and Need for Cochran Road, as well as at both ends of the roadway, in the villages of Richmond and Jonesville. The recommendations are for enhancing safety, comfort, and connectivity for pedestrians and cyclists along the roadway and to expand access to recreational sites.

Key study objectives include:

- Identifying new infrastructure, such as sidewalks and traffic calming, that can be incorporated into village areas
- Developing specific on-road and off-road improvements and multi-modal strategies
- Evaluating existing traffic calming measures and recommending additional solutions or devices

Improvement options were presented, some with associated challenges that require further study and consideration. The study also included a cost methodology and preliminary estimated costs. Alternatives were developed with input from the CCRPC, the Town of Richmond, the town Selectboard, residents, and other community stakeholders.

1.1 STUDY CORRIDOR

The study corridor spans approximately 3.5 miles along Cochran Road and has been broken into three distinct segments as shown in Figure 1 below. Segment A is at the western end of the roadway in the Richmond Village area. Segment B is at the eastern end from about 800' west of Hapgood Lane to Duxbury Road in the Jonesville community. Segment C, the Cochran Road corridor proper, connects Segments A and B and serves as a key link to St. Mary's Cemetery parking area and trailhead, as well as other recreational sites, including Overocker Park, the Warren and Ruth Beeken Rivershore Preserve, and Cochran's Ski Area.

The study corridor includes the elements shown in Figure 1:





Figure 1: Cochran Road Study Areas A, B and C

1.2 PURPOSE AND NEED

The study focuses on three key aspects:

- Scoping Study: This will cover the two 25 mph village segments in the Richmond and Jonesville areas (A & B).
- Feasibility Study: This will address the 45 mph central Cochran Road segment (C), building on the prior recommendations and alternatives presented by the town.
- Traffic Calming Evaluation: This will involve reviewing the recently installed traffic calming measures in the villages and recommending additional devices or enhancements, if necessary.

1.2.1 PURPOSE AND NEED STATEMENT

Purpose. The Purpose of this project is to develop and identify recommended alternatives for the Cochran Road segments that improve safety, comfort, and mobility for non-motorized users along the corridor and in the villages to expand access to recreational sites.

Need. Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and alignment. The roadway has two travel lanes with narrow shoulders and no sidewalks. The numerous recreational uses attract a variety of motorized and non-motorized users; however, residents are concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking at the recreational sites along the corridor.



1.3 STUDY PROCESS

The goal of this study is to identify and develop recommended alternatives for Cochran Road as well as the village ends of Richmond and Jonesville, as mentioned above. The study followed the following process:

- 1. Project Introduction March 26, 2024
- 2. Local Concerns Public Meeting- April 9, 2024
- 3. Village Scoping Study October 2024 to January 2025
- 4. Development of Draft Alternatives January 2025
- 5. Draft Alternatives Public Presentation-February 10, 2025
- Determination of Traffic Calming Priorities April 2025
- 7. Cochran Road Feasibility Study April to May 2025
- 8. Final Scoping Study Report May 2025

1.4 REVIEW OF PREVIOUS STUDIES

1.4.1 2018 RICHMOND TOWN PLAN

The 2018 Richmond Town Plan is a guide and roadmap for future investments in the town that articulates Richmond's community vision and identifies the Town's values and community priorities. Eleven specific vision statements are included in the Plan. From a transportation perspective, this includes, "support safe, sustainable, and convenient mobility and transportation options, so that people can bike, walk, ride, and drive in Richmond and beyond." The Transportation section of the plan, starting on page 35, details a Complete Streets philosophy for Richmond and emphasizes that infrastructure should be safe, efficient, and resilient and support Active Transportation.

1.4.2 2022 RICHMOND BIKE, WALK, TRAILS PLAN

The September 2022 *Bike, Walk, Trails Plan* was a major effort by the Town, CCRPC, and consultants to outline the vision, goals and priorities to improve walking and biking in Richmond. The Plan identified solutions based on community input that would complement the Richmond Town Plan. The study included significant community engagement and specifically identified Cochran Road as a critical connection across town, linking the two villages and in need of improvement to support active transportation. Public comments suggested separated bicycle and pedestrian facilities as opposed to sharing the narrow road with vehicles. Lowering speed limits and improved signage were identified, as well as access to recreational areas. The long term recommendation for Cochran Road was a separated 10-foot wide shared use path along the north side of the road.

1.4.3 COCHRAN ROAD TEMPORARY SPEED HUMP LOCATION MEMO

The 2023 memo by DuBois & King details recommendations for placement of temporary speed humps within the two village segments of Cochran Road, in Richmond and Jonesville. The memo provides information on the roadway classification, recorded vehicle speeds, and sign & pavement marking guidance from the Manual on Uniform Traffic Control Devices (MUTCD). The temporary speed humps have since been replaced with permanent speed humps and WSP staff has been able to drive the corridor and evaluate their effectiveness.



1.4.4 RICHMOND COMPLETE STREETS CORRIDOR STUDY

The August 2021 memo by VHB was completed to assess multimodal improvements along the Bridge Street corridor from Route 2 to the Thompson Rd/Huntington Rd/Bridge St/Cochran Rd (THBC) intersection. The study identified gaps in the pedestrian network along Bridge Street including the lack of sidewalks on the east side of the road. Three alternatives for the sidewalk, parking and a shared use path were investigated. At the THBC intersection, three different traffic control alternatives were assessed, including a mini roundabout. Ultimately, the no-build condition was supported as consensus on the treatment could not be reached. For all the solutions investigated, however, a short section of sidewalk was included on Cochran Road to meet future improvements on that roadway.



2 PUBLIC OUTREACH

The public outreach process facilitated by WSP, the CCRPC, and the Town, has provided ample opportunity for members of the public to participate and provide feedback throughout the course of the study. Three public meetings were held including the Local Concerns Meeting, Draft Alternatives Presentation, and the Final Alternatives Presentation. The CCRPC maintained a project website CCRPC including project materials for those who could not attend the meetings and contact information for providing comments.

2.1 ADVISORY COMMITTEE

For this study, The Town of Richmond's Selectboard served as the project Advisory Committee following the dissolution of the Town's Traffic Committee. The role of the Advisory Committee is to represent a range of perspectives; review study materials and provide feedback; communicate with and provide updates to the Town; and participate in developing the purpose and need statement, alternatives, and study recommendations. The Selectboard generally has a full agenda when they meet so the Cochran Road study received full attention from the Town and meetings were well attended. Meeting minutes are included in the Appendix along with meeting materials.

FIRST CONCEPTUAL ALTERNATIVES PRESENTATION

The first Conceptual Alternatives Presentation was held October 7, 2024. The purpose of this meeting was to present initial ideas and potential solutions to the public for consideration and comment.

An overview of the study and a draft Purpose & Need was presented before discussing the alternatives. Conceptual alternatives were discussed for the three major project segments: Richmond village, Jonesville, and the mid-section of Cochran Road.

SECOND CONCEPTUAL ALTERNATIVES PRESENTATION

The second Conceptual Alternatives Presentation was held on January 6th, 2025. The presentation included ideas to improve safety and mobility for the three study segments. These included:

• Richmond Village

- o Improve pedestrian safety and connectivity in the village. Provide sidewalks separated by a grass strip on the north and south side of Cochran Road
- o Consider curb extensions and a crosswalk at Round Church Road
- o Maintain existing traffic calming elements

• Jonesville

- o Improve pedestrian safety and connectivity in the village. Provide sidewalks (with a grass strip) on the north and south side of Cochran Road to the west of the Huntington River. To the east of the river, sidewalk is suggested on the south side only (opposite side from the meadow) with no grass strip, ending at Duxbury Road.
- Consider curb extensions at Dugway and Wes White Hill
- o Consider additional on-street parking near Bombardier Meadow
- o Maintain existing traffic calming elements
- Cochran Road



- Improve pedestrian and bicycle safety and mobility
- o Provide connectivity between the village centers
- Provide access to recreational areas along the corridor
- Allow for healthy transportation alternatives

2.2 PUBLIC MEETINGS

LOCAL CONCERNS MEETING

The Local Concerns Meeting (LCM) was held April 9, 2024, to gather input on residents' concerns, transportation needs, and to generate ideas and potential solutions for the study. A brief presentation was provided by WSP and included an outline of the study's context, goals, and a brief overview of the existing conditions followed by a brainstorming session to elicit feedback from the community.

Comments from the public included:

- Unsafe conditions for all road users
 - o Cochran Road is narrow and has narrow shoulders and no sidewalks
 - o Cars speed and there is limited sight distance along the roadway
- Limited parking. The amount of parking for the various recreational trails and spaces along the corridor is low. During the pandemic temporary parking around Bombardier meadow in Jonesville was added, but has since been removed and parking on the street is prohibited.
- Activity on Cochran Road increases during the warm weather with access to the river, including hiking, fishing, and tubing. Some of these uses can be a nuisance to residents.
- Potential floodplain issues
- Right-of Way constraints
- Village areas lack sidewalks and parking

DRAFT IMPROVEMENTS PRESENTATION

The Draft Improvements Presentation was held on February 10th, 2025. A suite of improvements identified and discussed at the prior meeting was refined and presented with preliminary pricing for construction. The pricing estimates were developed from the VTrans document, *Report on Shared-Use Path and Sidewalk Costs, January 2020*. This document includes average unit costs for typical sidewalk and paths constructed in Vermont with some minor variations based on material choices. The pricing estimates using unit costs from the 2020 document were presented without price escalation, however, and some residents expressed concern that the numbers were not accurate without the escalations. Upon discussion of the estimates, however, it was evident to most that the pricing was already too high, even before the escalation (estimated now to be an additional 26.50% from year 2020 to year 2026, six years).

More information about the improvements and preliminary pricing are discussed further below in chapter 4.

SELECTBOARD ACCEPTANCE

The final recommendations were presented to the Selectboard on May 19, 2025. The findings of the CCRPC's Speed Study (Appendix C) were also presented. The Selectboard thanked the team for their work and, in a unanimous vote, accepted the report.



3 EXISTING CONDITIONS

Cochran Road is characterized by narrow travel lanes along a mountainous terrain with limited sight distance due to the horizontal alignment and vertical profile of the roadway. In several areas there is visible ledge outcroppings on the south side of the road (against the mountain) and large drop-offs on the north side adjacent to the Winooski River. It is evident that the roadway was cut into the mountain, against the ledge, as the slope on the downhill side has been mostly filled and matches the alignment of the roadway.

3.1 ROADWAY DATA

COCHRAN ROAD

Cochran Road is functionally classified as a minor collector under the jurisdiction of the town of Richmond. Cochran Road is oriented in the east/west direction in the study area and consists of one travel lane in each direction with a 1-2 foot painted shoulder separated by a marked double yellow centerline. There are no sidewalks along the roadway and parking is not allowed, with the exception of two areas. The first is near St. Mary's Cemetery on the Richmond end of the roadway, about 4 parallel spaces (informal, gravel). The second is in Jonesville just west of Wes White Hill, on the south side of the road, approximately 5 spaces (paved, head-in parking) at the Huntington River Bridge.

Several facts about Cochran Road are worth noting:

- Overall Length: ~3.5 miles
- Classification: Minor Collector
- Right of way: +/- 49.5 feet (3 rods wide)
- Pavement width: +/- 22-24 feet
- Lane width: +/- 11 feet (10' +/- with a 1-2 foot painted edge line)
- AADT (May-June 2023):
 - o Daily total 2,700 vehicles per day
- Speed limit 25mph in Richmond village, 45 middle segment, 25 mph in Jonesville
- Crash history. A total of 5 crashes were identified through the VTrans Public Crash Data Query Tool between April 2021- April 2025, a low number. Three of the five were single vehicle crashes. One was unclassified. The last one was a head-on crash at the THBC intersection in March 2023
- Truck route (24,000-pound limit) signs are posted at each end of the roadway
- Bombardier Meadow: designated no parking around the meadow, however, parking is allowed on Cochran Road from the bridge over the Winooski River to the intersection with Duxbury Road
- Floodplain. Almost the entire length of the north side of the roadway is within a designated floodplain, see Figures 2a and 2b below. The top image is the westerly end of the roadway (Richmond village end). The lower image is the Jonesville (easterly) end of the roadway. We note that the roadway has experienced washouts recently in 2023 and 2024



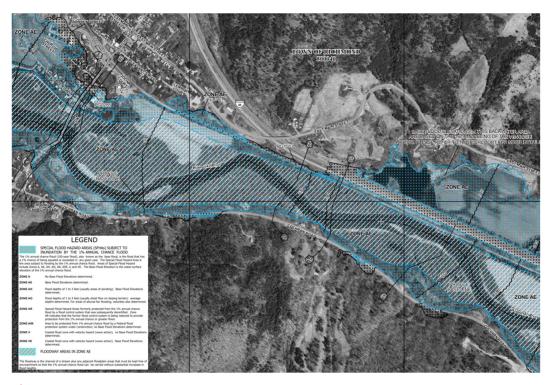


Figure 2a: FEMA Flood Insurance Rate Map, Cochran Road (west) September 11, 2013

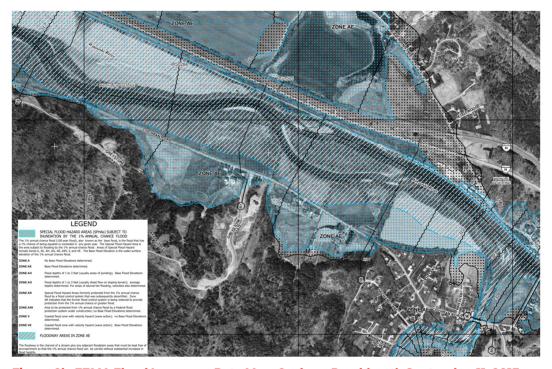


Figure 2b: FEMA Flood Insurance Rate Map, Cochran Road (east), September 11, 2013



4 ROADWAY ALTERNATIVES

4.1 RICHMOND VILLAGE



Figure 3: Richmond Village, Cochran Road looking East

The Richmond village study area starts at the Thompson Rd/Huntington Rd/Bridge St/Cochran Rd (THBC) intersection easterly to St. Mary's Cemetery where the Preston Forest Trail head is located. The current condition includes a 22-foot-wide paved roadway including a 1-2 foot painted shoulder and no pedestrian accommodations.

4.1.1 RICHMOND VILLAGE CONCEPTS



Figure 4: Richmond Village; Cochran Road key concepts



Key concept ideas are:

- 1. Improve Pedestrian Safety and connectivity within the Village
- 2. Provide sidewalk on both sides of the road to reinforce village environment
- 3. Consider curb extensions and a crosswalk at Round Church Rd for structure
- 4. Continue sidewalk to the Preston Forest Trail at the cemetery for recreation
- 5. Maintain current traffic calming elements (humps, signs, etc.)

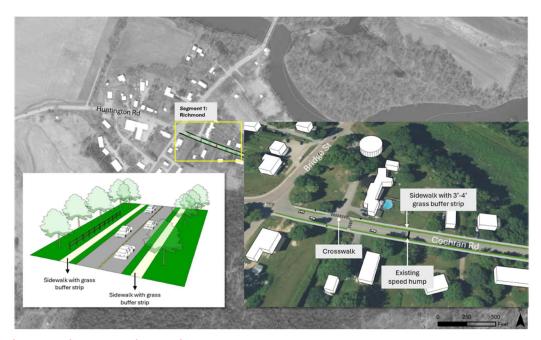


Figure 5: Richmond Village Sidewalk Concept

The major elements in Richmond Village include:

Sidewalks with a grass strip that extend from Bridge Street to the parking area at the trail head near the cemetery. The current speed humps and the 25-mph speed limit will be maintained. The consideration of adding a crosswalk at Round Church Road is recommended.



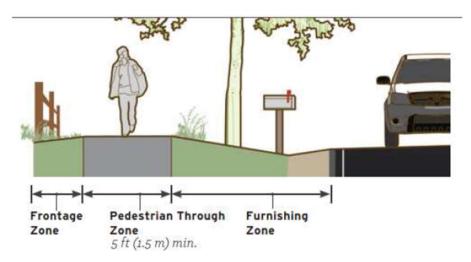


Figure 6: Typical sidewalk with grass strip (Source: FHWA)

The typical section, similar to the image shown above, includes a sidewalk set back from the road to maintain an adequate distance for trees, utility poles, hydrants, roadway signs, and other elements, enhancing comfort and safety for pedestrians. Cochran Road is approximately 22 feet wide with a 3-rod, or 49.5-foot Right-of-Way, leaving approximately 13 feet available on each side for improvements. The concept proposes a 5-foot sidewalk with a 4-foot furnishing zone, leaving a 4-foot frontage zone to integrate into existing landscaping and grade back to meet the existing terrain.



Figure 7: Richmond Village; Cochran Road initial concepts



A menu of improvement options includes the following:

- 1. Sidewalk with granite curb on north side from to trail and cemetery parking
- 2. Sidewalk with granite curb on south side (shorter due to ledge outcroppings)
- 3. Signs and markings for safety

4.1.2 RICHMOND VILLAGE CONCEPTS CHALLENGES



Figure 8: Cochran Road south side widening challenges

The study identified several challenges in the Richmond Village area regarding implementing proposed concepts, including the high cost of widening for a sidewalk or separated path on the south side due to ledge/rock and the need for potential utility pole relocations. A majority of the limit of proposed sidewalks appear to be outside of the floodplain boundary as shown in Figure 2a. Most of the floodplain issues will be on the north side of the roadway, along the Winooski River, while the south side is at a higher elevation up against the hillside.



4.1.3 RICHMOND VILLAGE CONCEPTS PRELIMINARY ESTIMATED COSTS

The estimated cost uses the unit prices from the VTrans *Shared-Use Path and Sidewalk Costs (2020)* as a reference. These unit prices include "typical" costs for construction. The chart below includes a breakdown of estimated units of each improvement separately.

Note: The estimated total costs for this study are intended for high-level planning purposes only and do not represent a detailed project cost estimate. Factors such as extreme topographic conditions, structures (bridges, retaining walls, tunnels), and other site-specific conditions may lead to increased construction expenses.

The estimate includes an escalation to bring the 2020 prices to the year 2026 by applying a four percent per year increase (compounded), for a total of 26.5 percent.

High level preliminary estimated costs for all the improvement elements are shown in Table 1 below:

Table 1 Richmond Village Concepts Preliminary Cost Estimate

Alternatives	Cost Per Unit	Estimated Distance	Preliminary Cost	Cost with Escalation*
1. Sidewalk on North Side	\$317/foot	Sidewalk: 2350 FT	\$745,000	\$942,500
2. Sidewalk on South Side	\$317/foot	Sidewalk: 700 FT (shorter due to Ledge/Rock)	\$225,00	\$285,000
3. Signs & Markings for safety	Crosswalk Markings: \$14/LF	Crosswalk Markings: 50 FT & misc. Traffic Signs	\$10,000	\$12,650
4. Other; Ledge/rock, utility conflicts, misc.		Estimated at 5% of sidewalk cost	\$50,000	\$63,250
5. Grading & Drainage		Estimated at 15% of sidewalk cost	\$150,000	\$189,750
Design Engineering & Surveying		Engineering at 10%	\$100,000	\$126,500
		TOTAL	\$1,280,000	\$1,619,000



4.2 JONESVILLE





Figure 9: Jonesville; Cochran Road looking East

The Jonesville study area includes Cochran Road from Route 2 to just west of 2944 Cochran Road. Current conditions are a bit more rural than Richmond village. The section from Route 2 to just east of the Huntington River includes the Bombardier Meadow.

4.2.1 JONESVILLE CONCEPTS

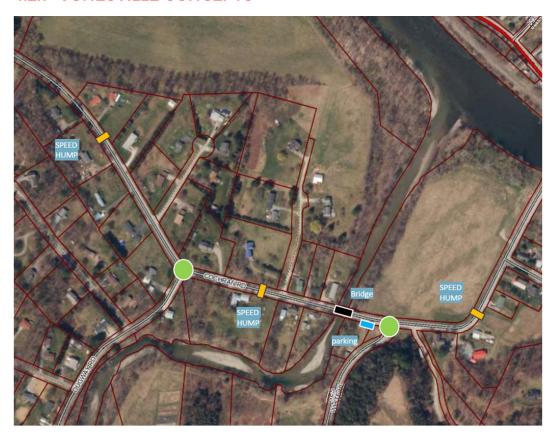


Figure 10: Jonesville; Cochran Road key concepts



Key concept ideas are:

- 1. Improve Pedestrian Safety and connectivity within the Village
- 2. Consider sidewalk on both sides of the road to reinforce village environment
- 3. Consider intersection treatments for traffic calming & safety. Potential curb extensions; Dugway & Wes White Hill
- 4. Consider additional street parking near the meadow and the river for recreational access
- 5. Maintain current traffic calming elements (speed humps, signs, etc.)

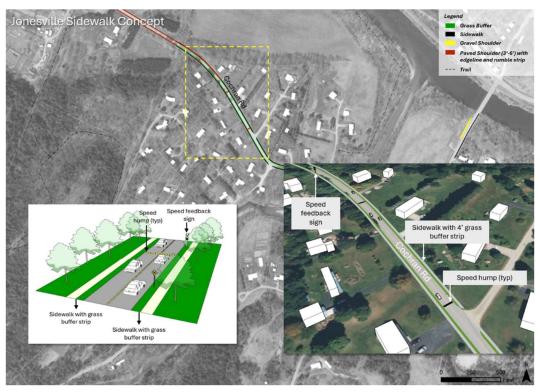


Figure 11 Jonesville Sidewalk Concepts west of the Huntington River



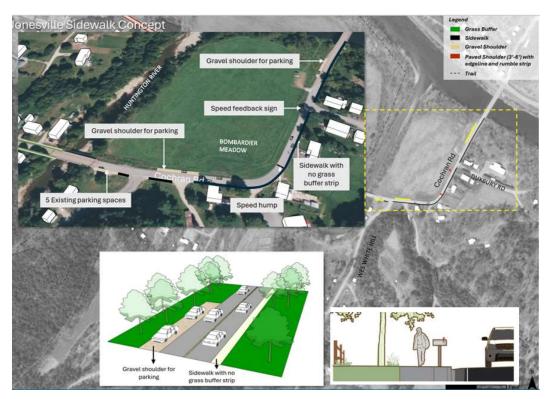


Figure 12 Jonesville Sidewalk Concepts and parking east of the Huntington River

The major elements in Jonesville are highlighted below:

To enhance pedestrian safety and connectivity with the community center, sidewalks are proposed. Sidewalks also help to reinforce the village environment. The existing speed humps and 25 mph speed limit will be maintained. Cochran Road to the west of the Huntington River will feature grass strips and setback sidewalks similar to the Richmond village area. East of the Huntington River on the south side up to Duxbury Street, where houses are closer to the street, sidewalks will be at the edge of the roadway with no grass strip to limit impacts. Two small parking areas are proposed, enough for 2-3 cars each and comprised of a widened gravel shoulder, at the meadow. These areas appear to be outside of the floodplain boundaries as shown in Figure 2b but should be checked once the parking limits are established. In accordance with the Richmond Zoning Regulations (Section 6.8.12(a)(5)) widening for these parking areas would require a Conditional Use Review (CUR) and permit.





Figure 13: Jonesville; Cochran Road initial concepts

A menu of improvement options includes the following:

- 1. Sidewalk with granite curb on the north side (1500 ft)
- 2. Sidewalk with granite curb on the south side (1750 ft)
- 3. Signs and markings for safety alert road users of bikes
- 4. Gravel parking areas (two) for 2-3 cars each

4.2.2 JONESVILLE VILLAGE CONCEPTS CHALLENGES

The study identified several challenges in the Jonesville Village area regarding implementing proposed concepts, including the potential utility pole relocations, relocation of trees, and grading/drainage issues which may require short retaining walls if sidewalks are separated by a grass strip. The majority of proposed sidewalks appear to be outside of the floodplain boundaries as shown on Figure 2b; however, this would need to be checked further once the actual sidewalk limits are determined.



4.2.3 JONESVILLE VILLAGE CONCEPTS PRELIMINARY ESTIMATED COSTS

The estimated cost uses the unit prices from the VTrans *Shared-Use Path and Sidewalk Costs (2020)* as a reference. These unit prices include "typical" costs for construction. The chart below includes a breakdown of estimated units of each improvement separately.

Note: The estimated total costs for this study are intended for high-level planning purposes only and do not represent a detailed project cost estimate. Factors such as extreme topographic conditions, structures (bridges, retaining walls, tunnels), and other site-specific conditions may lead to increased construction expenses.

The estimate includes an escalation to bring the 2020 prices to the year 2026 by applying a four percent per year increase (compounded), for a total of 26.5 percent.

High level preliminary estimated costs for all the improvement elements are shown below:

Table 2 Jonesville Concepts Preliminary Cost Estimate

Alternatives	Cost Per Unit	Estimated Distance	Preliminary Cost	Cost with Escalation*
1. Sidewalk on North Side	\$317/foot	Sidewalk: 1500 FT	\$475,500	\$600,875
2. Sidewalk on South Side	\$317/foot	Sidewalk: 1750 FT	\$555,000	\$702,000
3. Signs & Markings for safety	Crosswalk Markings: \$14/LF	Crosswalk Markings: 75 FT Traffic Signs	\$10,000	\$12,650
4. Gravel parking spaces		Estimated at \$3,000 each	\$6,000	\$7,600
5. Grading & Drainage		Estimated at 15% of sidewalk cost	\$155,000	\$196,000
Design Engineering & Surveying		Engineering at 10%	\$103,000	\$130,000
		TOTAL	\$1,304,500	\$1,650,200



4.3 COCHRAN ROAD



Figure 14: Cochran Road corridor looking East

The Cochran Road segment looks at a feasibility study for roadway safety improvements. The current speed limit is 45 mph, which is a safety challenge, and carries about 2,700 vehicles per day. The goal is to improve pedestrian and bicycle mobility and provide a safe connection between the Richmond Village and Jonesville along the Cochran Road segment.

4.3.1 COCHRAN ROAD CONCEPTS



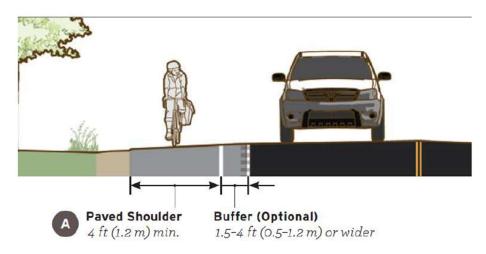
Figure 15: Topography along Cochran Road



Key concept ideas are:

- 1. Improve Pedestrian and Bicycle safety and mobility along the roadway
- 2. Provide connectivity between village centers
- 3. Improve access to recreational areas such as Overocker Park, the Winooski River, Cochran's Ski Area, etc.
- 4. Allow for healthy transportation alternatives

Initially, a separated bike path was considered on the north side of the roadway, but it was deemed impractical due to the steep drop-offs, necessary fill, and floodplain impacts. A paved shoulder concept is more suitable for this constrained, low-volume, high-speed roadway. The concept involves widening the road by a small amount on each side to add a useable shoulder; then add striping and a rumble strip buffer to create a 5-6 foot shoulder for bicycle and pedestrian use. Although this approach is more feasible, it still presents challenges due to ledge and floodplain issues. Based on these constraints the team will estimate how much of the roadway can actually accommodate the widened shoulders in the detailed discussion below.



Functional classification	Volume (AADT)	Speed (Mi/h)	Recommended Minimum Paved Shoulder Width
Minor Collector	up to 1,100	35 (55 km/h)	5 ft (1.5 m)
Major Collector	up to 2,600	45 (70 km/h)	6.5 ft (2.0 m)
Minor Arterial	up to 6,000	55 (90 km/h)	7 ft (2.1 m)
Principal Arterial	up to 8,500	65 (100 km/h)	8 ft (2.4 m)

Figure 16: Typical Paved Shoulder (Source: FHWA)

A menu of improvement options includes the following:

- 1. Paved Shoulder Concept
 - a. Expanding the current 22ft roadway within the 3-rod layout by adding a 5-6ft paved shoulder to each side
- 2. Adding Warning & Advisory signs and markings



4.3.2 COCHRAN ROAD CONCEPTS CHALLENGES



Figure 17: Cochran Road ledge and elevation challenges

The study identified several challenges for the Cochran Road segment regarding implementing proposed concepts, including the steep uphill grades on mountain side (south side), 45 MPH speed limit, roadway curves and limited sight distance, ledge outcroppings, as well as steep downgrades on the Winooski River side (north side) and associated floodplain concerns. According to the floodplain map shown in Figures 2a and 2b, the floodplain concerns are mainly on the north side of the road, and primarily to the east of Cochran's Ski area, especially the flatter farmland section around Greystone Drive. These constraints will limit the ability to provide a continuous paved shoulder along the length of the roadway.

The two figures below show the estimated paved shoulder limits due to the constraints noted above, and also the potential placement of warning signs. The warning signs are to alert for limited sight distance along the roadway and to give space when passing cyclists. Final sign placement will need to be field verified according to standard guidance.



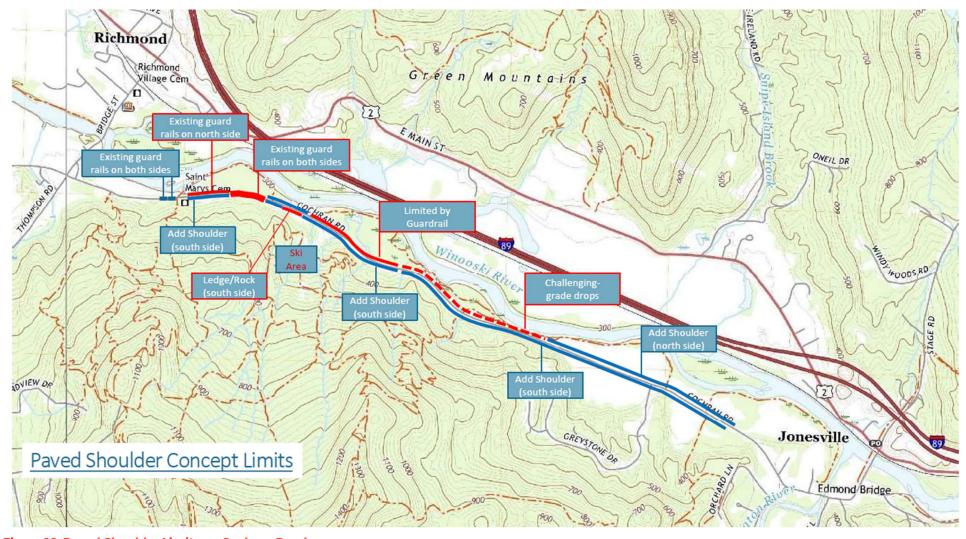


Figure 18: Paved Shoulder Limits on Cochran Road



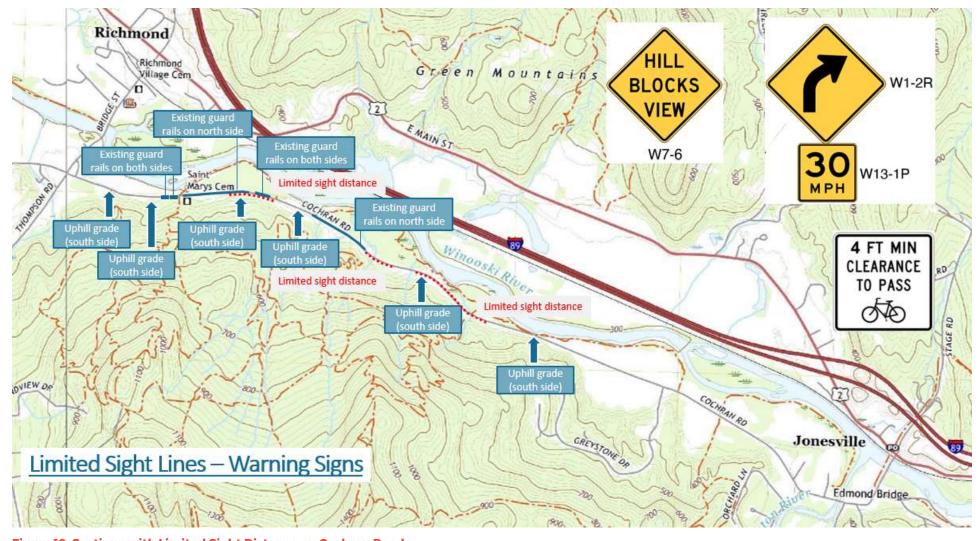


Figure 19: Sections with Limited Sight Distance on Cochran Road



4.3.3 COCHRAN ROAD CONCEPTS PRELIMINARY ESTIMATED COSTS

The estimated cost uses the unit prices from the VTrans *Shared-Use Path and Sidewalk Costs (2020)* as a reference. These unit prices include "typical" costs for construction. The chart below includes a breakdown of estimated units of each improvement separately.

Note: The estimated total costs for this study are intended for high-level planning purposes only and do not represent a detailed project cost estimate. Factors such as extreme topographic conditions, structures (bridges, retaining walls, tunnels), and other site-specific conditions may lead to increased construction expenses.

The estimate includes an escalation to bring the 2020 prices to the year 2026 by applying a four percent per year increase (compounded), for a total of 26.5 percent.

High level preliminary estimated costs for all the improvement elements are shown below:

Table 3 Cochran Road Concepts Preliminary Cost Estimate

Alternatives	Cost Per Unit	Estimated Distance	Preliminary Cost	Cost with Escalation*
1. Paved Shoulder on North Side	\$510,000/mil e	Shoulder: 1.0 mile (limited by grades drops)	\$ 510,000	\$645,150
2. Paved Shoulder on South Side	\$510,000/mil e	Shoulder: 2.5 mile	\$1,275,000	\$1,613,000
3. Pavement Markings & traffic signs for safety	\$3.25/foot \$500/each	Pavement markings, Traffic Signs & symbols	\$85,800 \$10,000	\$108,500 \$12,650
4. Gravel parking spaces along the road		Estimated at \$3,000 each Say 8 spots	\$24,000	\$30,400
5. Grading & Drainage		Estimated at 15% of paved shoulder cost	\$267,750	\$338,700
Design Engineering & Surveying		Engineering at 10%	\$300,000	\$379,500
		TOTAL	\$2,472,550	\$3,127,800



5 TRAFFIC CALMING

5.1 EVALUATION

WSP staff has driven the study corridor numerous times since the permanent speed humps were installed. The design and construction of the humps in both village segments is appropriate for the roadway. Speed humps are a typical application for traffic calming and have been used effectively, in our opinion.

The Cochran Road segment can also be improved with additional warning and regulatory signs to alert motorists of cyclists in the road and for sections of limited sight distance due to horizontal curves. Curve warning signs may include an advisory speed plaque. Additionally, a 35 MPH transition zone between the current 45MPH section and the village 25MPH sections on both ends of the corridor are recommended based on a speed study conducted by the CCRPC (See Appendix C for full report).

Based on our review of the corridor and the speed study we suggest the following additions to the roadway:

5.1.1 VILLAGE SEGMENTS

- Suggest the addition of a supplemental 15 MPH advisory speed plaque (W13-1P) to the existing speed hump warning signs. These plaques not only help to alter motorists of the hump, but are also beneficial to motorcycle drivers to use extra precautions concerning driving over the raised device.
- 'Share the Road' warning sign to alert drivers that cyclists are also on the road.
- Bicycle passing clearance signs, "4 FT MIN CLEARANCE TO PASS" (R4-19). A regulatory sign requires motorists to give adequate space to pass a cyclist.
- Pavement markings "SLOW" or "25 MPH" installed on the roadway between humps. An additional measure to encourage compliance.
- An additional speed hump should be considered for the villages to keep speeds low. Typical spacing for speed humps is about 500-600 feet and the spacing for some humps is closer to 1,000 feet.

5.1.2 COCHRAN ROAD

- 35MPH speed limit transition zones are suggested between the current 45MPH zone to the 25MPH zones at either end of the corridor. The Selectboard would need to approve the speed study conducted by the CCRPC and vote to amend the Town's speed regulation for Cochran Road to add the 35MPH zone so that it is enforceable.
- Horizontal curve warning signs with advisory speed plaques.
- Trail head and Trail parking signs at Overocker Park and other recreational sites similar to the style used in our National Parks (brown color scheme, see MUTCD chapter 2M. Recreational and Cultural Interest Area Signs) to convey the active nature of the roadway and access to natural resources.



6 RECOMMENDATION

6.1 MENU OF OPTIONS

6.1.1 SHORT & LONG TERM RECOMMENDATIONS

This Scoping Study has developed a suite of improvements that may be implemented separately or together as a package along the corridor. Based on feedback from residents at the last Selectboard meeting, there was a consensus that any long term options that require pavement widening, ledge removal and any significant slope grading are likely too expensive for the Town at this moment.

However, the menu of improvements includes many lower cost options that may be implemented sooner, in the short term, such as the addition of signs & markings, the adoption of a 35MPH speed zone, and trail markers. Some of these could be installed by Public Works staff and represent the start to enhance safety along Cochran Road and within the villages. Additionally, there are grant opportunities that assist municipalities in improving the safety of people walking and biking on Vermont's roadways, namely the <u>Bicycle and Pedestrian Program</u> and Transportation Alternatives Program.

Short term recommendations include:

- Implement the 35MPH speed zones to transition between the 45MPH and 25MPH zones
- Install supplemental 15MPH speed plaques to the existing speed hump warning signs
- Add "SLOW" or "25 MPH" pavement markings in both the Richmond and Jonesville villages, in-between the speed humps, to encourage a uniform low speed for vehicles and to reduce acceleration between devices.
- Consider an additional speed hump after implementation of the supplemental speed plaques and "25 MPH" pavement markings if deemed necessary to further control high speeds and improve safety.
- Add trail marker signs (brown background color) at the various recreational sites along the corridor to raise awareness of potential vehicle, bicycle and pedestrian activity
- Consider additional warning signs along the 45MPH segment of Cochran Road where horizontal curves or hills limit sight distance and additional guidance to drivers may improve safety

APPENDIX



PUBLIC ENGAGEMENT MATERIALS

Richmond Cochran Road Corridor Study

TUESDAY, APRIL 9, 2024

5:30 PM



Agenda

- Project Overview
 - Project Team Introduction
 - Project Context & Goals
 - Project Limits/Locus Map
 - Planning Context
- Existing Conditions
 - High level overview
 - Roadway and Sidewalk elements
 - Intersection overview
- Discussion of Opportunities and Concerns



Project Team



Jason Charest, PE, PTP
Senior Transportation Planning Engineer

Erik Maki, PE, PTOPSenior Director, Traffic Engineering

Annabelle Dally
Communications & Public Involvement Manager

Kevin McCarthy, PE *Senior Transportation Engineer*

Zachary Gavel *Transportation Planner*





Project Context

- Scoping Study Cochran Road 25mph village segments at each end;
- ■Corridor Study Cochran Road; build on the recommendations and alternatives presented in the *Town of Richmond Bike, Walk, and Trails Plan*.
- Traffic Calming evaluate the temporary traffic calming measures and recommend permanent traffic calming solutions.

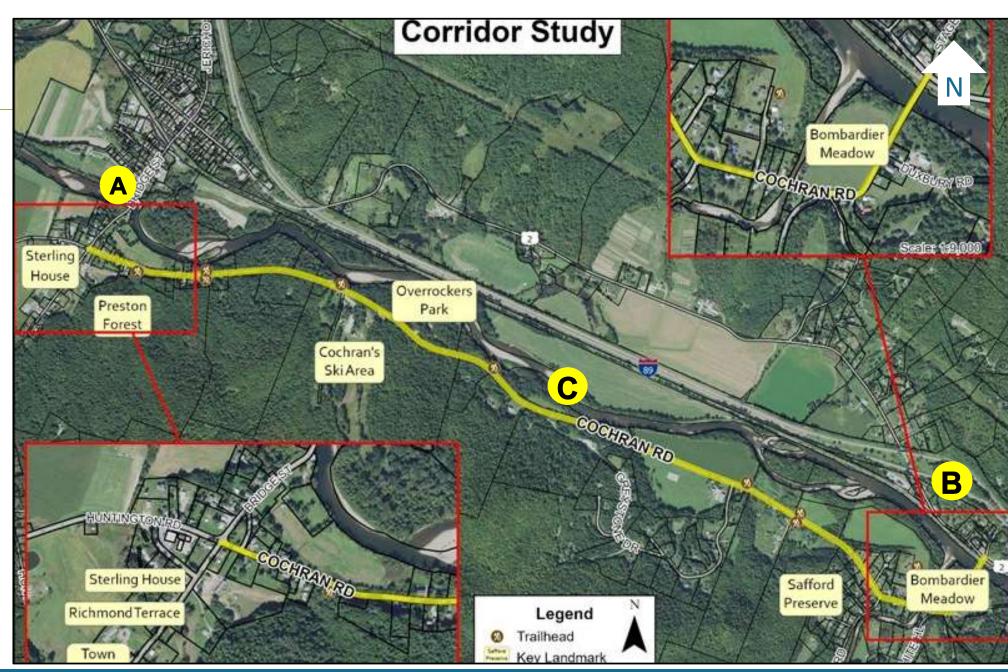
Project Goals

- 1. Village segments Identify new infrastructure such as sidewalks that can be incorporated
- 2. Middle segment Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- 3. Evaluate the study on temporary traffic calming measures and recommend permanent traffic calming solutions or additional devices.

Study Area

Project Limits:

- A. Richmond end
- B. Jonesville end
- C. Mid-section 2.5 miles





Review of Previous Studies

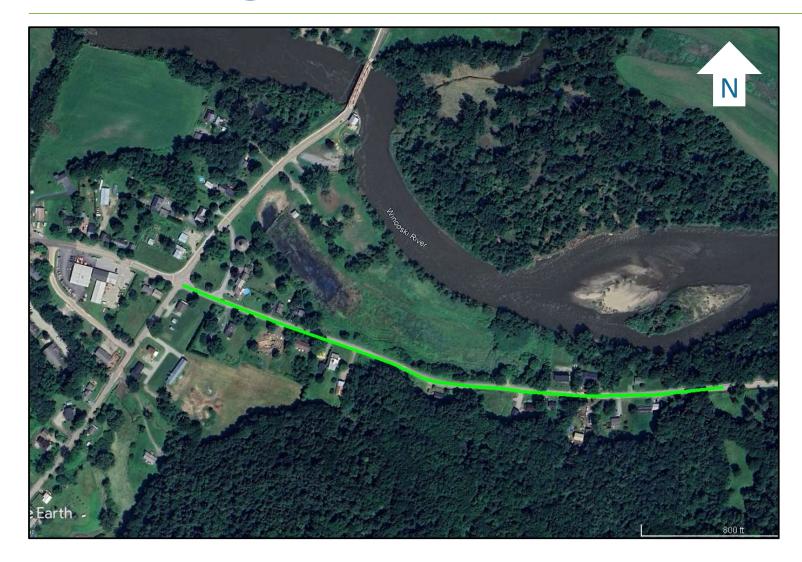
DOCUMENTS INCLUDE:

- 2022 Richmond bike.walk.trails
- ■2018 Town Plan
- ARPA Survey





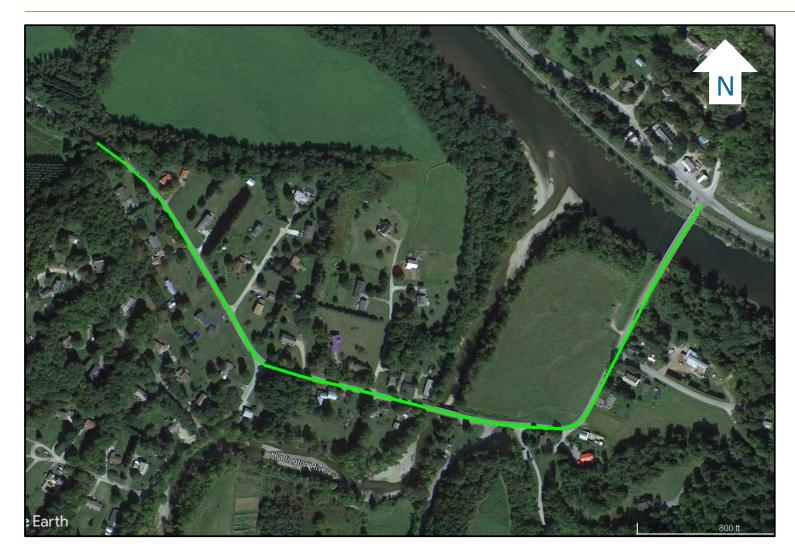
Existing Conditions – Richmond





Looking West

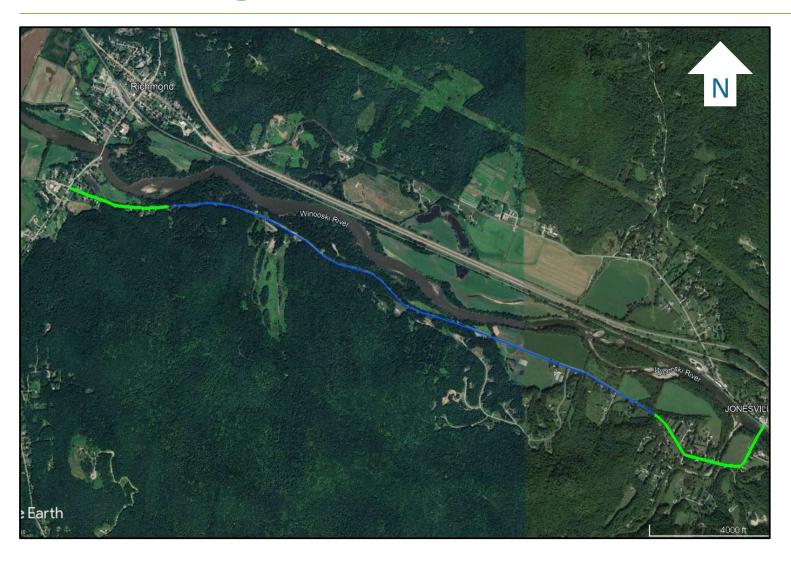
Existing Conditions – Jonesville





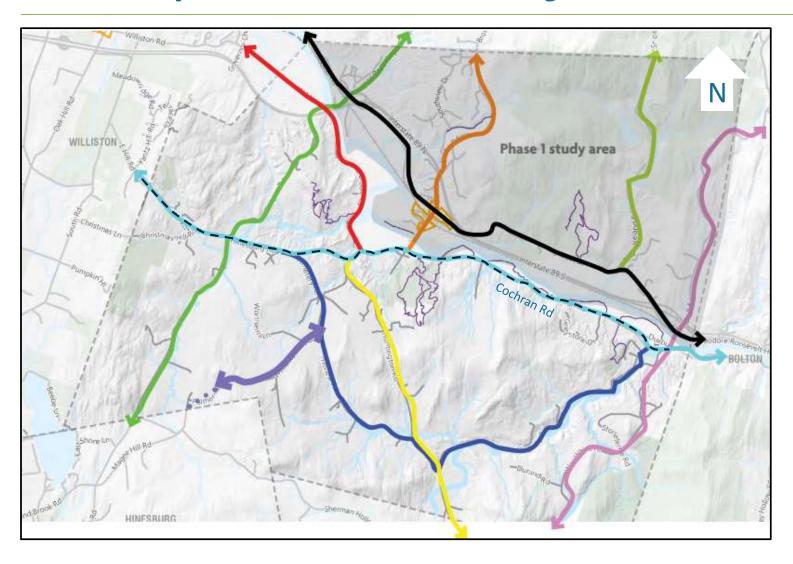
Looking East

Existing Conditions — Cochran Road



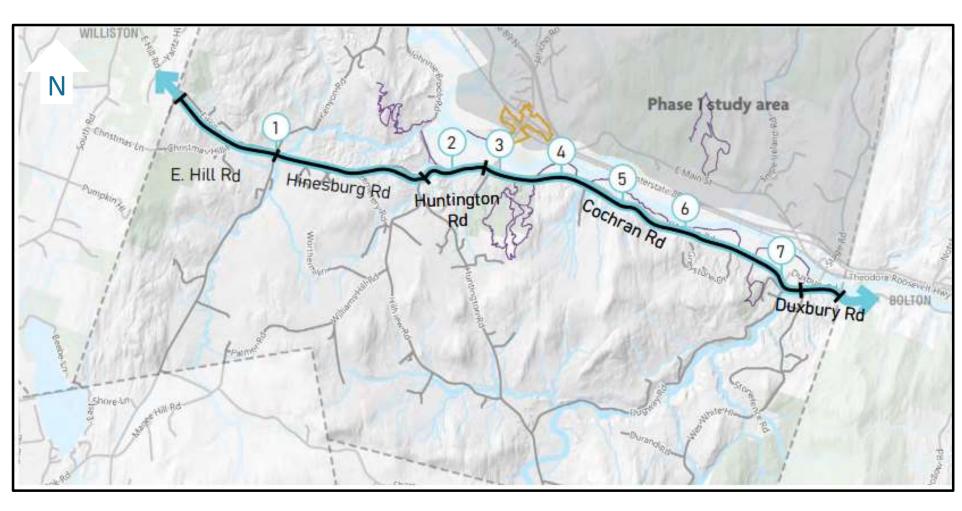
- Length: ~2.5 miles
- Classification: Minor Collector
- ■Right of way: +/- 49.5 feet (3 rods)
- Pavement width: +/- 22-24 feet
- Lane width: +/- 11 feet (9/2)
- **AADT** (2020):
 - Daily total 950 vehicles per day
- ■Speed limit 25/45/25 mph
- Designated Truck Route

Study Area – Major Travel Corridors



- East-West travel:
 - Duxbury Road
 - Cochran Road
 - Huntington Road
 - Hinesburg Road
 - E. Hill Road

Places & Trails — Cochran Road



- ■1 Fays Corner
- ■2 Johnnie Brook Trail
- ■3 Huntington, Cochran, Thompson, Bridge St Intersection; Farr Complex

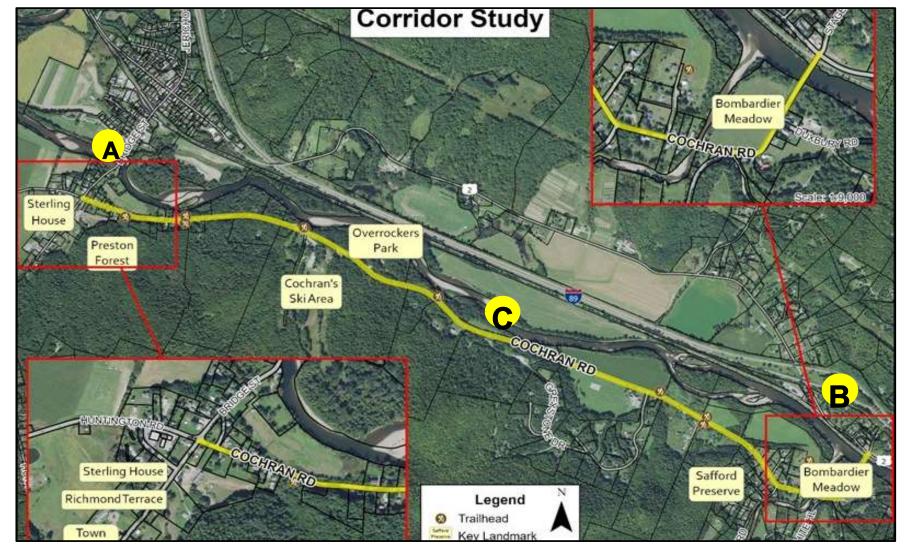
Within Study Area Limits:

- 4 Preston Forest Legacy & River Trail Access; Trail Crossing
- ■5 Cochran's Ski Area & Trails
- ■6A-B Overocker & Beeken Rivershore Parking
- ■7 Bombardier Meadow; Trail Crossing

Public Feedback

Discussion

- 1. Pedestrians
- 2. Cyclists
- 3. Shared Use Paths
- 4. Parking
- 5. Safety
- 6. Traffic Calming
- 7. Active Transportation
- 8. Trails & Recreation



Next Steps — how to stay involved

Project Introduction – March 26, 2024

Task 1. Local Concerns Meeting – April 9

Task 2. Village Scoping Study – (April – June)

Task 3. Traffic Calming Priorities – (July – August)

Task 4. Cochran Road Corridor Study – (August – September)

Task 5. Study Recommendations – (September – October)

Contact Us!



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Annabelle Dally

Communications & Public Involvement Manager

Kevin McCarthy, PE *Senior Transportation Engineer*

https://www.ccrpcvt.org/our-communities/richmond/



Richmond Cochran Road Corridor Study

MONDAY, OCTOBER 7, 2024

7:00 PM



Project Team







Keith Oborne

Director of Planning and Zoning

Jason Charest, PE, PTP
Senior Transportation Planning Engineer

Erik Maki, PE, PTOESenior Director, Traffic Engineering

Annabelle Dally
Communications & Public Involvement Manager

Kevin McCarthy, PE *Senior Transportation Engineer*



Agenda

- Project Context
- Project Goals
- Local Concerns Meeting Recap
- Purpose and Need Statement
- Conceptual Alternatives
 - Initial discussion
- Next Steps

Project Context – Cochran Road

- Scoping Study for the two 25mph village segments; Richmond, Jonesville.
- ■Feasibility Study for the middle section; build on the recommendations and alternatives presented in the *Town of Richmond Bike, Walk, and Trails Plan*.
- Traffic Calming review the recently installed traffic calming measures and recommend supplemental devices, if needed.

Project Goals

- 1. Village segments Identify new infrastructure such as sidewalks that can be incorporated
- 2. Corridor segment Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- 3. Evaluate the traffic calming measures and recommend additional solutions or devices.

Local Concerns Meeting-Recap

LCM meeting was held on April 9, 2024. Concerns included:

- Unsafe conditions for all road users
 - The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- Limited parking at trails and other recreation sites
- Potential flood plain issues
- Right-of-Way constraints
- Village areas lack sidewalks and parking



Purpose and Need Statement (draft)

Purpose

The purpose of this project is to develop and identify a recommended alternative for Cochran Road that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

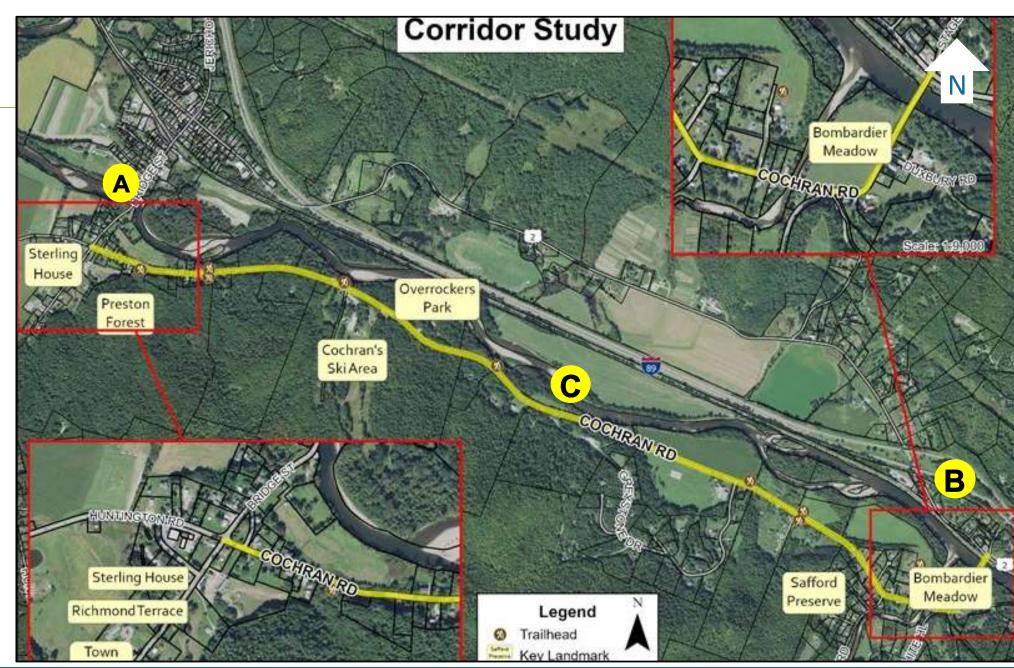
Need

Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous recreational uses attract a variety of motorized and non-motorized users; however, residents are concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking at the recreational sites along the corridor.

Study Area

Project Limits:

- A. Richmond
- B. Jonesville
- C. Cochran Rd corridor ~2.5 miles





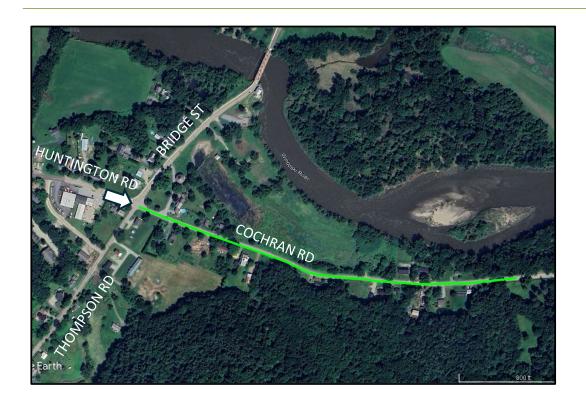
Conceptual Alternatives

- A. Richmond village
- B. Jonesville village
- C. Mid-corridor
- D. Traffic Calming

Develop Conceptual Alternatives

Identify alternatives that include typical sections, dimensions, roadway crossings, transitions, ADA compliance, impacts to existing facilities, construction impacts, project costs, and whatever else is appropriate for the project.

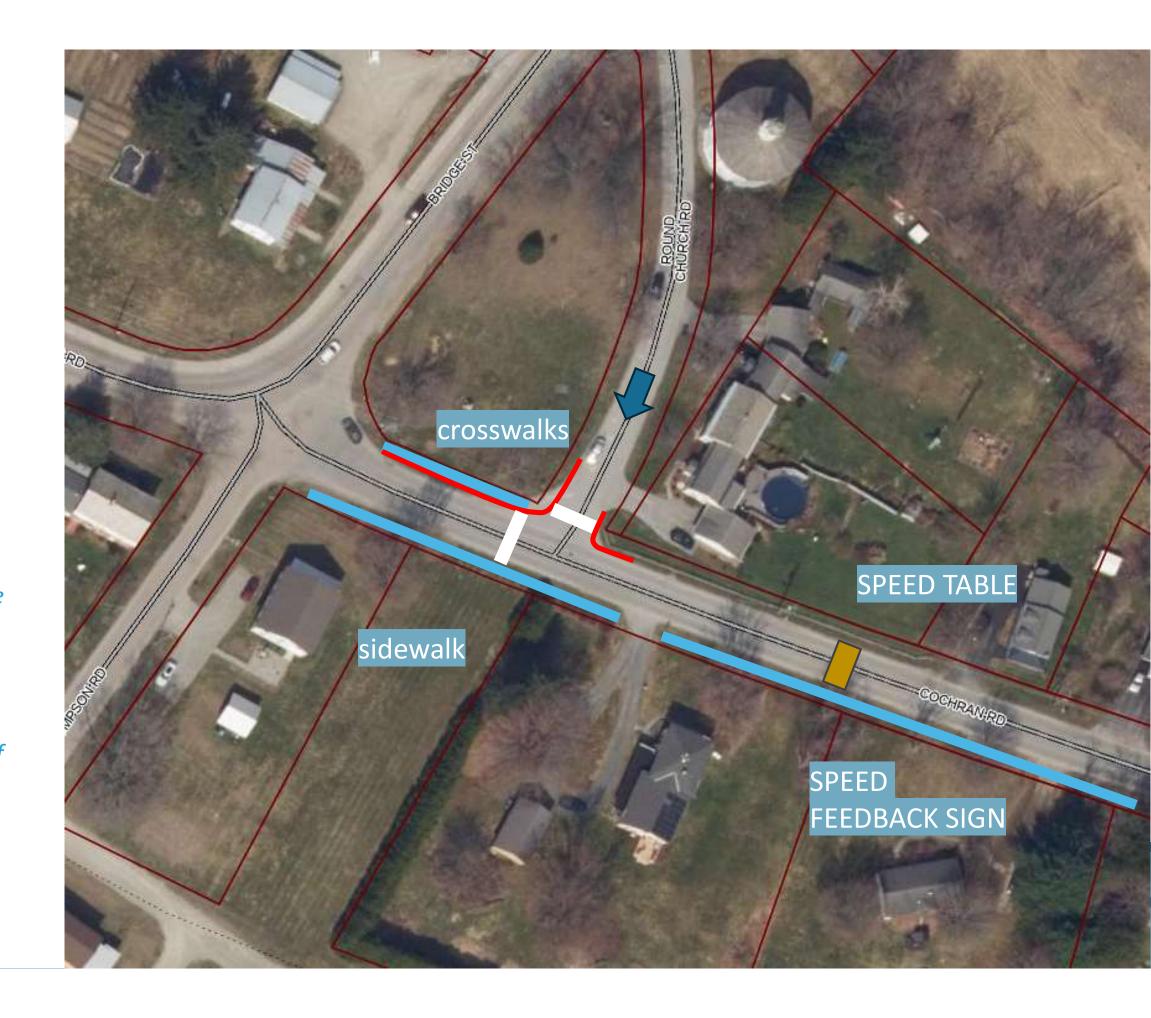
Richmond Village





Richmond

- 1. Assess speed hump and consider supplemental devices
- 2. Sidewalk on both sides near Bridge Street
- 3. Curb extension and Crosswalks at Round Church Rd
- 4. Continue sidewalk on South side of Cochran Rd to Preston Forest Trail
- 5. Improve Pedestrian Safety and connectivity



Sidewalks

Placement:

- •Adjacent to Street, or
- Separated with Grass Strip

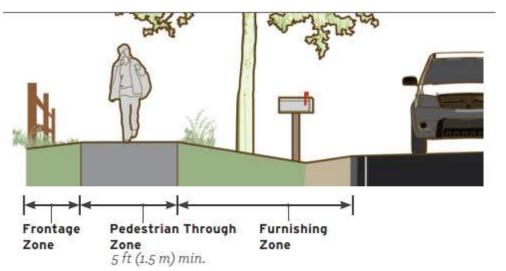
Materials:

- Asphalt
- Concrete



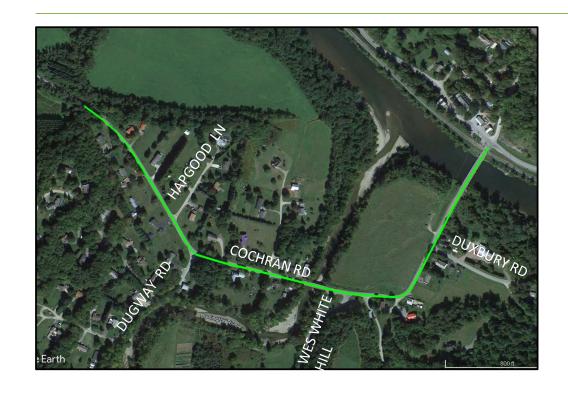


Volume And User Mix	Frontage Zone	Pedestrian Through Zone	Furnishing Zone	Total Width
Constrained Minimum	1 ft (0.3 m)	5 ft (1.2 m)	2 ft (0.6 m)	8 ft (2.4 m)
Recommended Minimum	2 ft (0.6 m)	6 ft (1.5 m)	4 ft (1.2 m)	12 ft (3.6 m)





Jonesville





Jonesville

- 1. Assess speed humps and consider supplemental devices
- 2. Improve Pedestrian Safety and connectivity sidewalks
- 3. Consider intersection treatments for traffic calming & safety
- 4. Curb Extensions; Dugway & Wes White Hill
- 5. Consider street parking near fields



Dugway Rd

- 1. Curb Extensions
- 2. Sidewalks or natural material sidepaths
- 3. Crosswalks
- 4. Street parking

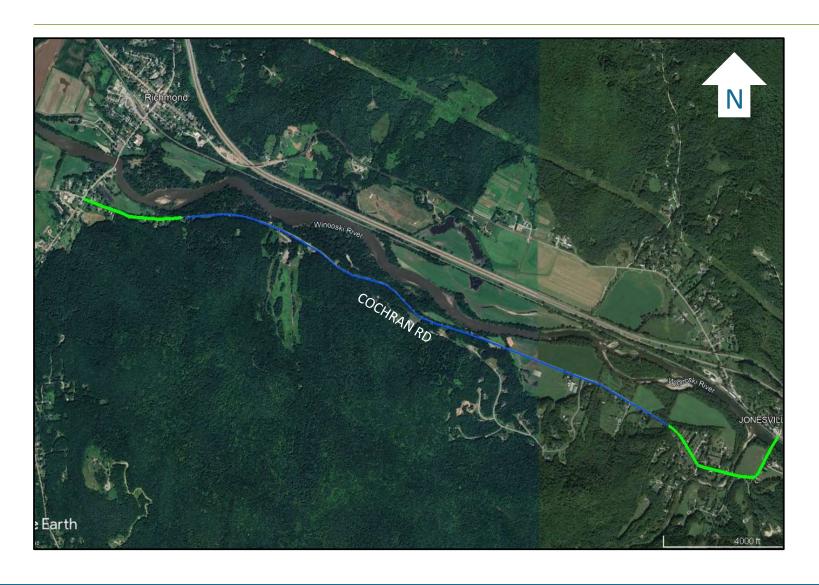


Wes White Hill Rd

- 1. Curb Extensions
- 2. Sidewalks or natural material sidepaths
- 3. Crosswalks
- 4. Field parking
- 5. Bike treatment over the Bridge

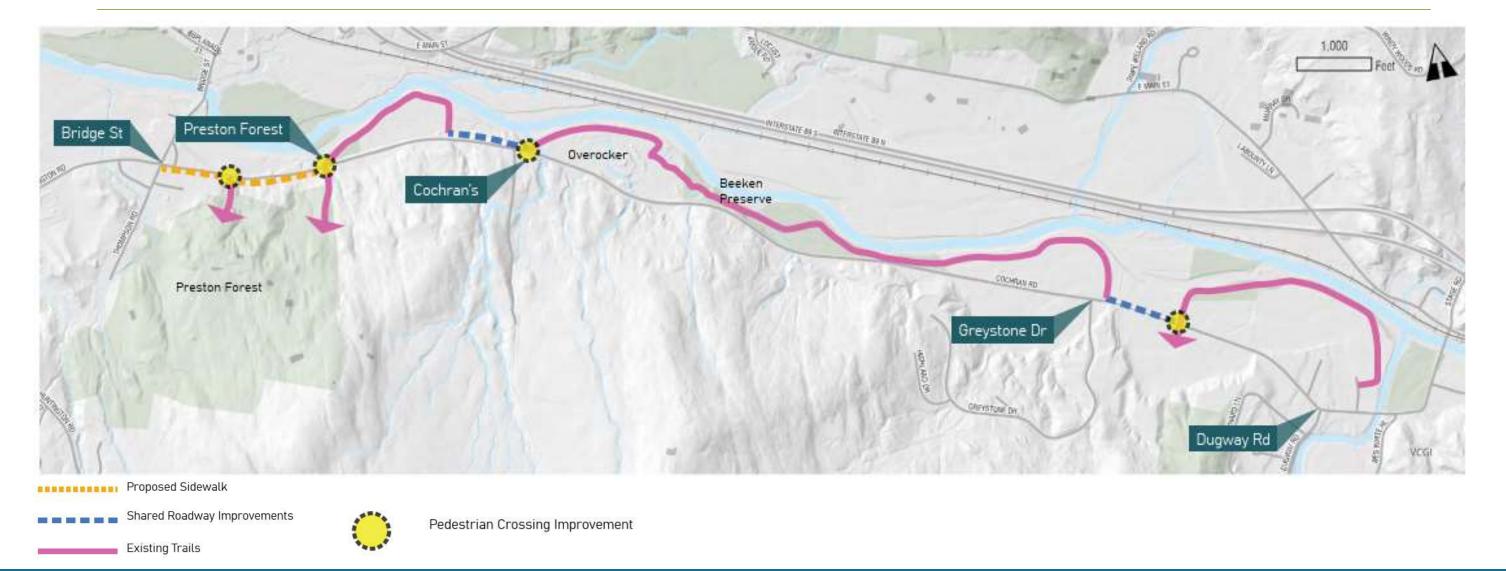


Cochran Road Corridor



- Length: ~2.5 miles
- Classification: Minor Collector
- Right of way: +/- 49.5 feet (3 Rods)
- Pavement width: +/- 22-24 feet
- ■Lane width: +/- 11 feet (9/2)
- ■AADT (May-June 2023):
 - Daily total **2,700 vehicles per day**
- ■Speed limit 25/45/25 mph
- ■Truck Route (24,000-pound limit)

Alt. 1 Sidewalks & Natural Surface Trail



Alt. 2 Multiuse Path



Proposed Multi Use Path

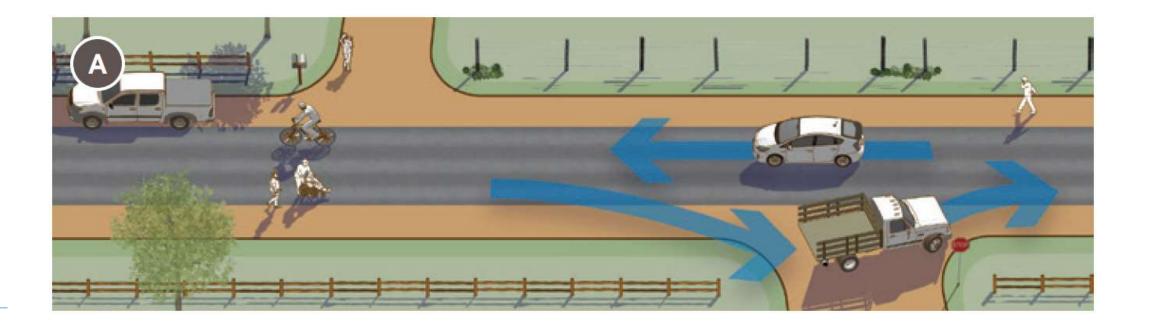


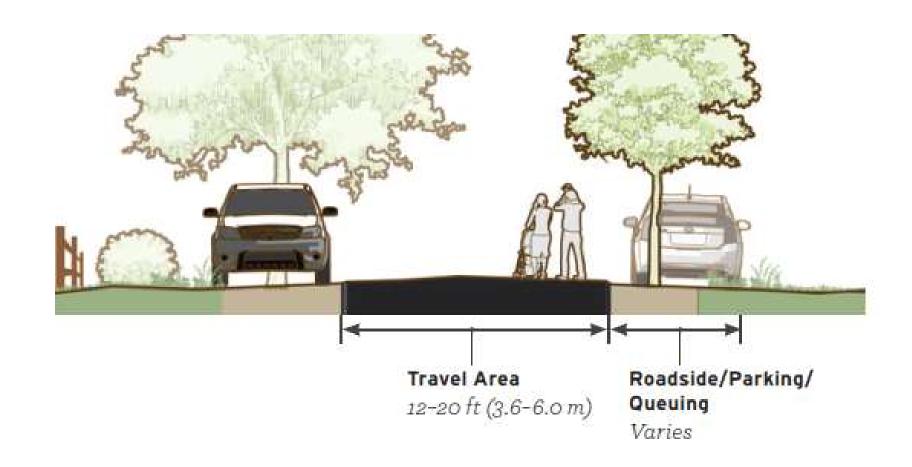
Pedestrian Crossing Improvement



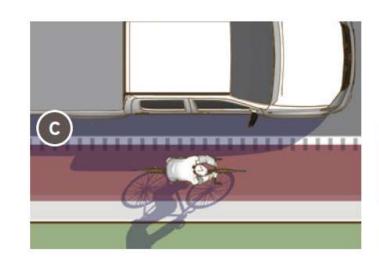
Gravel Shoulder Concept

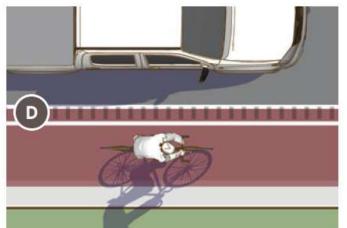
- 1. Maintains 22 ft Roadway
- 2. 6-8 ft Gravel Shoulder Added
- 3. Improves Pedestrian Safety
- 4. Maintains Local Priority & Community Livability
- 5. Improved Connectivity

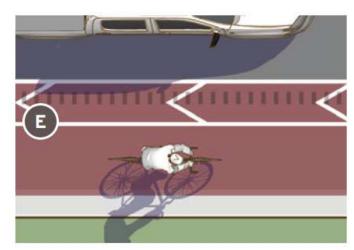




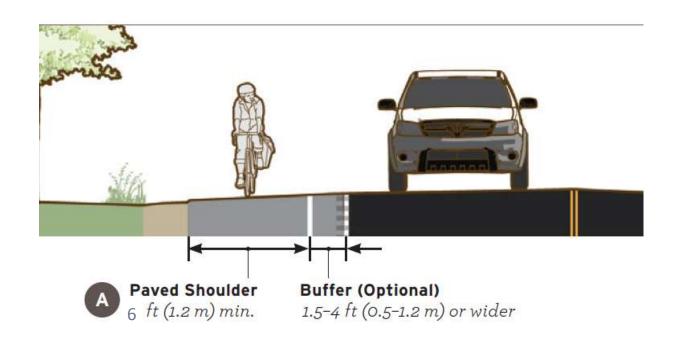
Paved Shoulder Concept







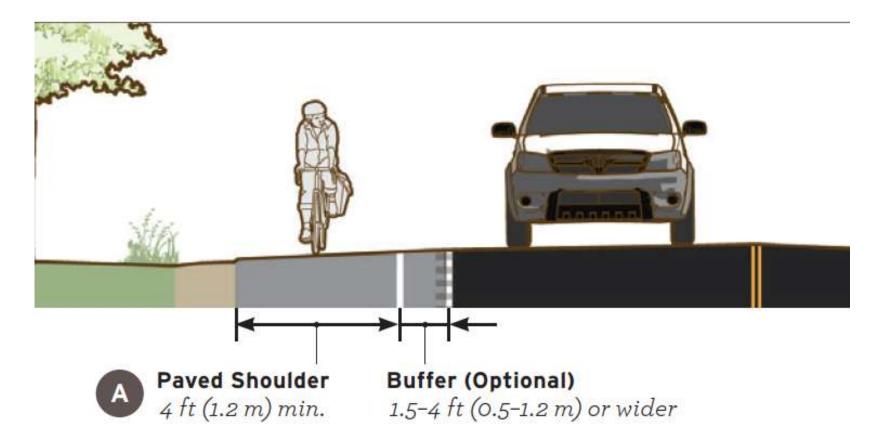
- 1. Maintains 22 ft Roadway
- 2. 6-8 ft Paved Shoulder Added with Rumble Strip and Buffer
- 3. Improves Pedestrian & Bicycle Safety





Paved Shoulder Concept

- 1. Maintains 22 ft Roadway
- 2. 6-8 ft Paved Shoulder Added with Rumble Strip and Buffer
- 3. Improves Pedestrian & Bicycle Safety

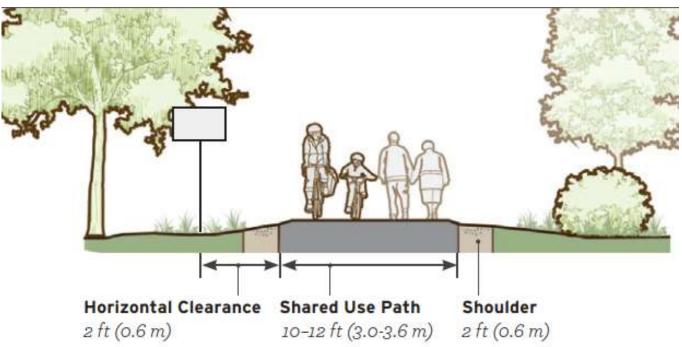


Functional classification	Volume (AADT)	Speed (Mi/h)	Recommended Minimum Paved Shoulder Width
Minor Collector	up to 1,100	35 (55 km/h)	5 ft (1.5 m)
Major Collector	up to 2,600	45 (70 km/h)	6.5 ft (2.0 m)
Minor Arterial	up to 6,000	55 (90 km/h)	7 ft (2.1 m)
Principal Arterial	up to 8,500	65 (100 km/h)	8 ft (2.4 m)

Multi-use Path Concept

- 1. Maintains 22 ft Roadway
- 2. Separated 10-12 ft Shared Use Path Added
- 3. May be Paved or Compacted Stone Dust
- 4. Improves Pedestrian Safety & Comfort
- 5. Encourages more Ridership
- 6. Improved Connectivity





Next Steps — how to stay involved

Project Introduction – March 26, 2024

Task 1. Local Concerns Meeting – April 9

Task 2. Village Scoping Study – (Oct – Nov)

Task 3. Traffic Calming Priorities – (Dec)

Task 4. Cochran Road Corridor Study – (Dec – Feb)

Task 5. Study Recommendations – (Feb – Mar)

Contact Us!



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Richmond Cochran Road Corridor Study

MONDAY, JANUARY 6, 2025

7:00 PM



Project Team







Keith Oborne

Director of Planning and Zoning

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Annabelle Dally

Communications & Public Involvement Manager

Jenny Zhang

Urban designer



Agenda

- Project Context
- Project Goals
- Local Concerns Meeting Recap
- Purpose and Need Statement
- Conceptual Alternatives Discussion
 - Richmond, Jonesville concepts
 - Cochran Road
- Next Steps

Project Context – Cochran Road

- Scoping Study for the two **25mph** village segments; Richmond, Jonesville.
- ■Feasibility Study for the **45mph** middle section; build on the recommendations and alternatives presented in the *Town of Richmond Bike, Walk, and Trails Plan*.
- Traffic Calming review the recently installed traffic calming measures and recommend supplemental devices, if needed.

Project Goals

- 1. Village segments Identify new infrastructure such as sidewalks that can be incorporated
- 2. Corridor segment Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- 3. Evaluate the traffic calming measures and recommend additional solutions or devices.

Local Concerns Meeting-Recap

LCM meeting was held on April 9, 2024. Concerns included:

- •Unsafe conditions for all road users
 - The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- •Limited parking at trails and other recreation sites
- Potential flood plain issues
- •Right-of-Way constraints
- •Village areas lack sidewalks and parking

Purpose and Need Statement

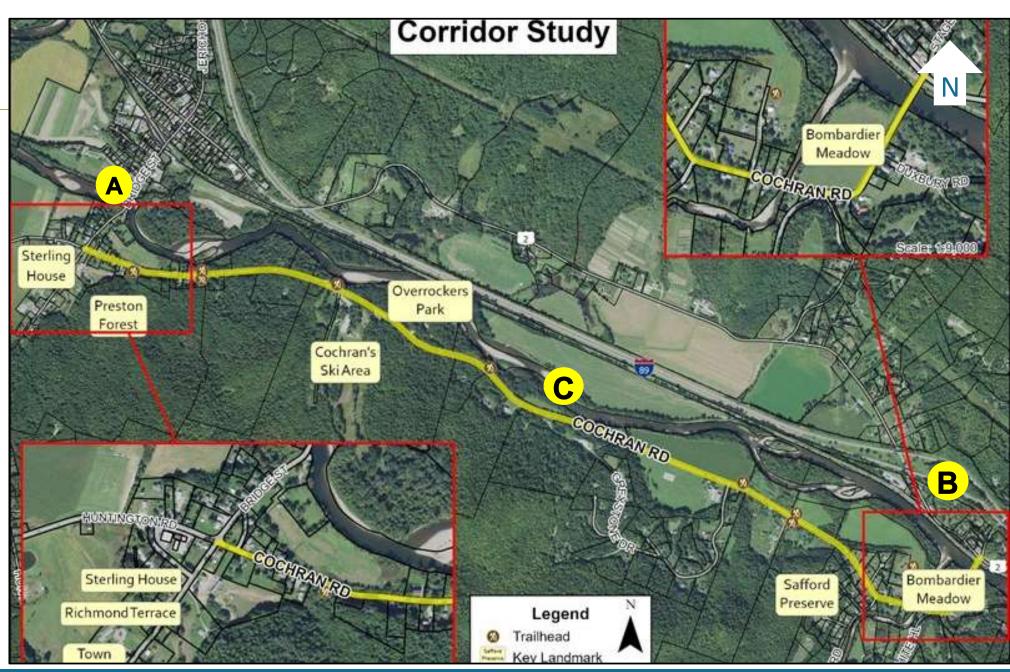
<u>Purpose</u>. The purpose of this project is to develop and identify a recommended alternative for Cochran Road that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

Need. Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous recreational uses attract a variety of motorized and non-motorized users; however, residents are concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking at the recreational sites along the corridor.

Study Area

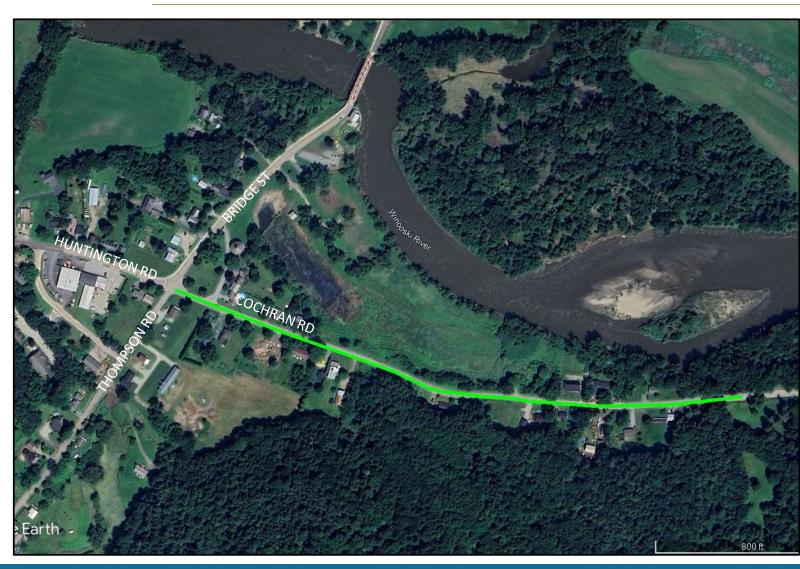
Project Limits:

- A. Richmond Village
- B. Jonesville Community
- C. Cochran Rd corridor ~2.5 miles





Richmond Village Concepts

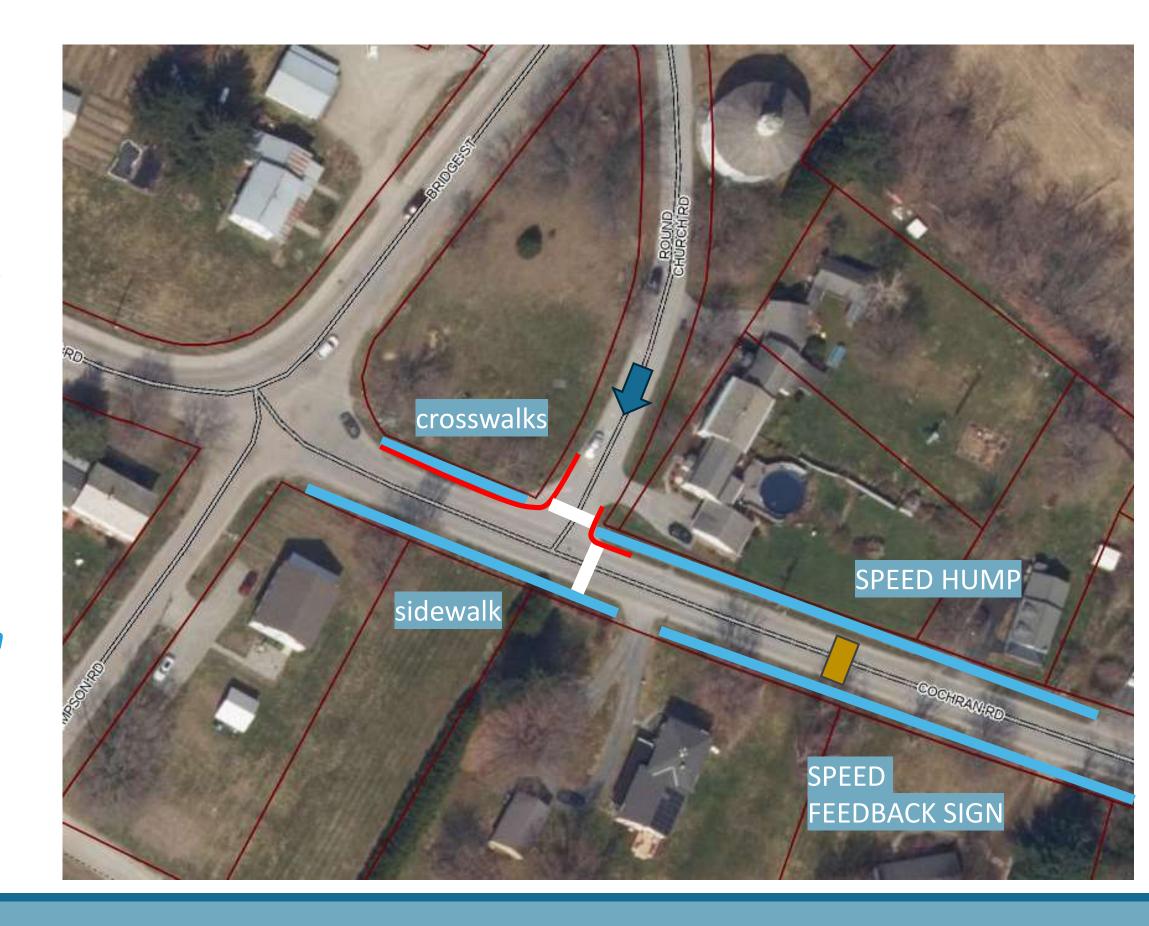


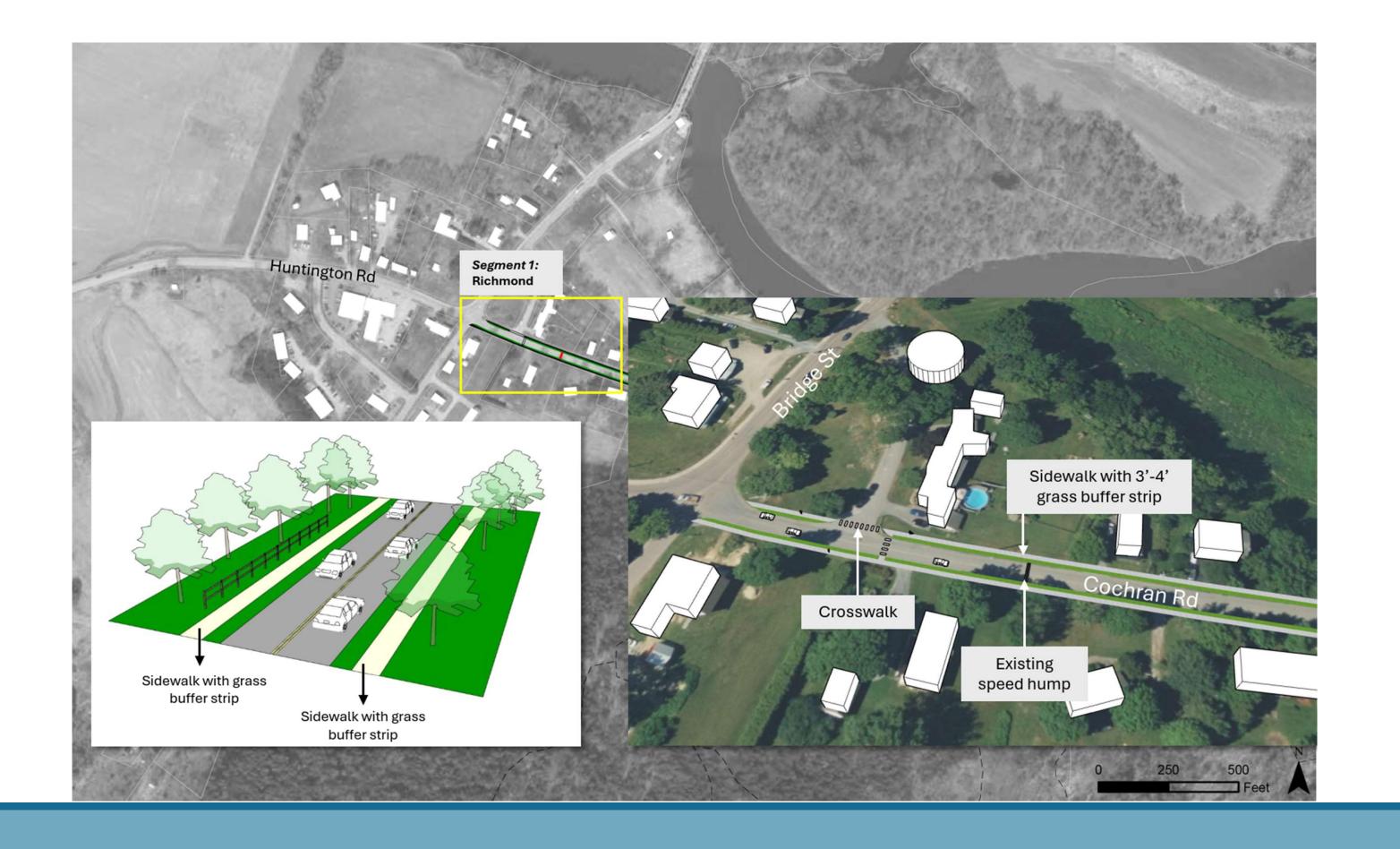


Richmond Village

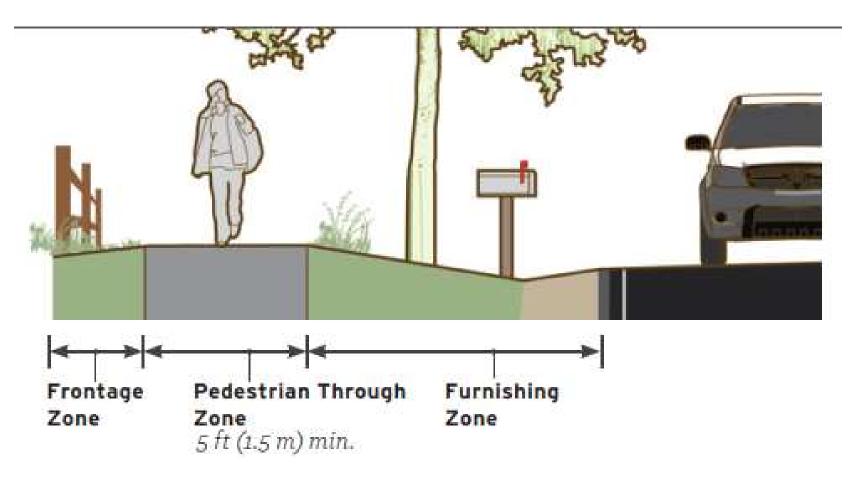
Concept ideas:

- 1. Improve Pedestrian Safety and connectivity within the Village
- 2. Provide sidewalk on both sides of the road to reinforce village environment
- 3. Consider curb extensions and a crosswalk at Round Church Rd
- 4. Continue sidewalk on both sides of Cochran Rd to Preston Forest Trail at the cemetery
- 5. Maintain current traffic calming elements (humps, signs, etc.)







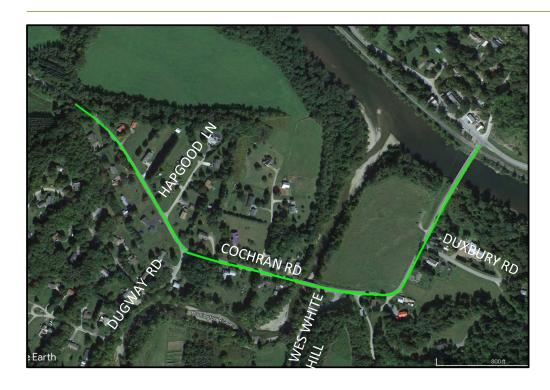


Cochran Road layout is 3 rods (49.5 ft) and should have about 13 ft. available on each side for sidewalks.

Table 4-3. Minimum recommended dimensions for sidewalks

Volume And User Mix	Frontage Zone	Pedestrian Through Zone	Furnishing Zone	Total Width
Constrained Minimum	1 ft (0.3 m)	5 ft (1.2 m)	2 ft (0.6 m)	8 ft (2.4 m)
Recommended Minimum	2 ft (0.6 m)	6 ft (1.5 m)	4 ft (1.2 m)	12 ft (3.6 m)

Jonesville Community Concepts



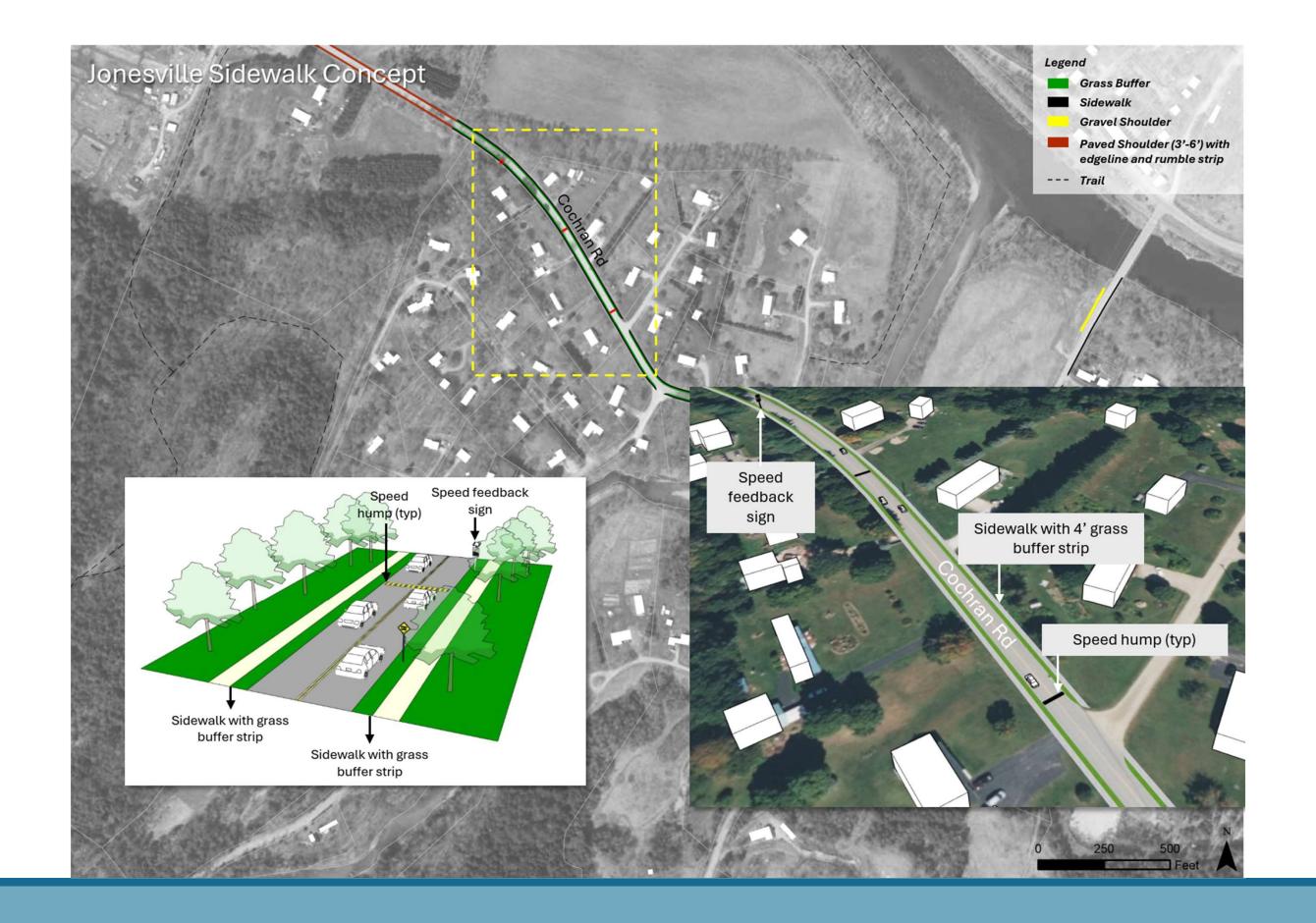


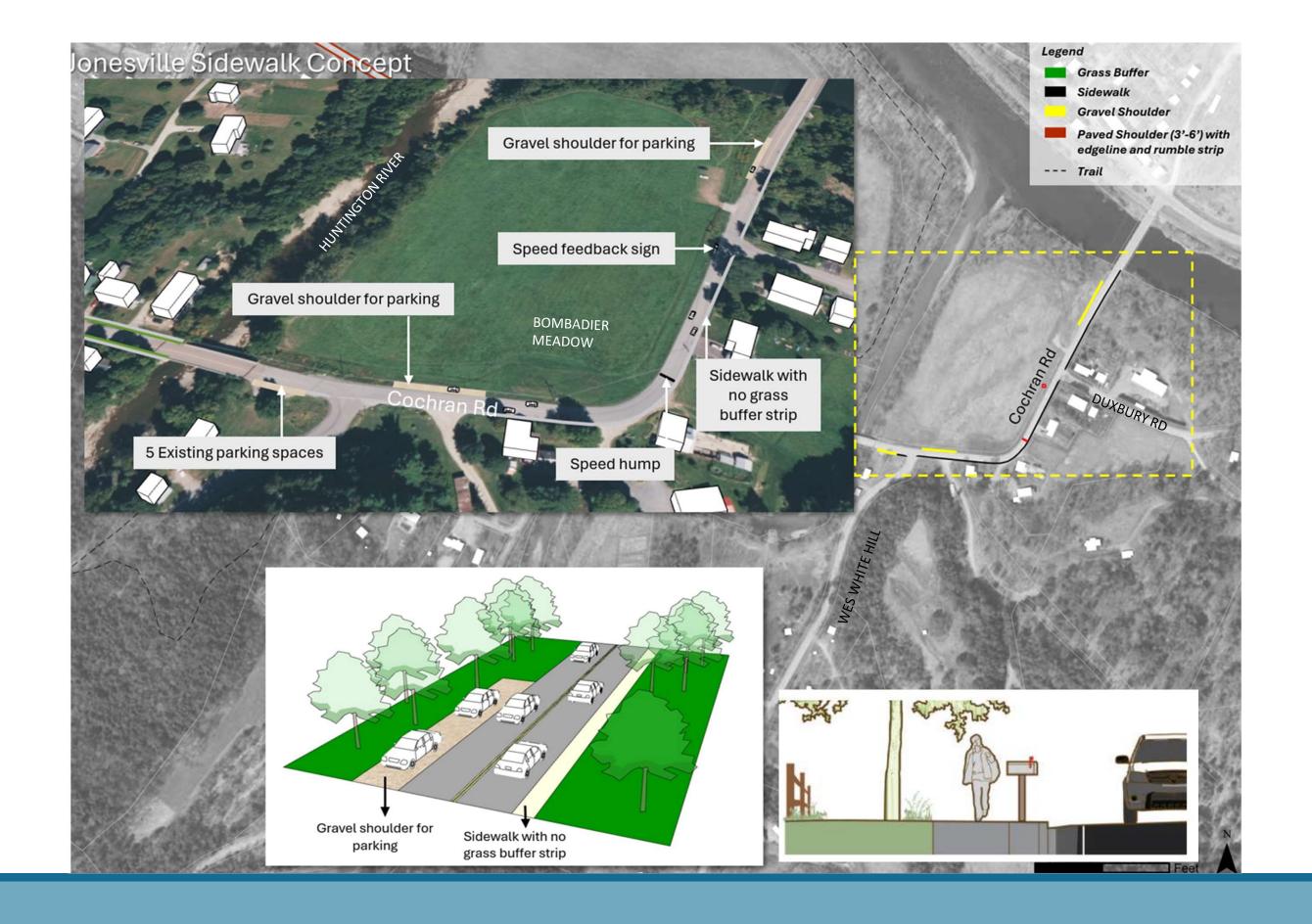
Jonesville Community

Concept ideas:

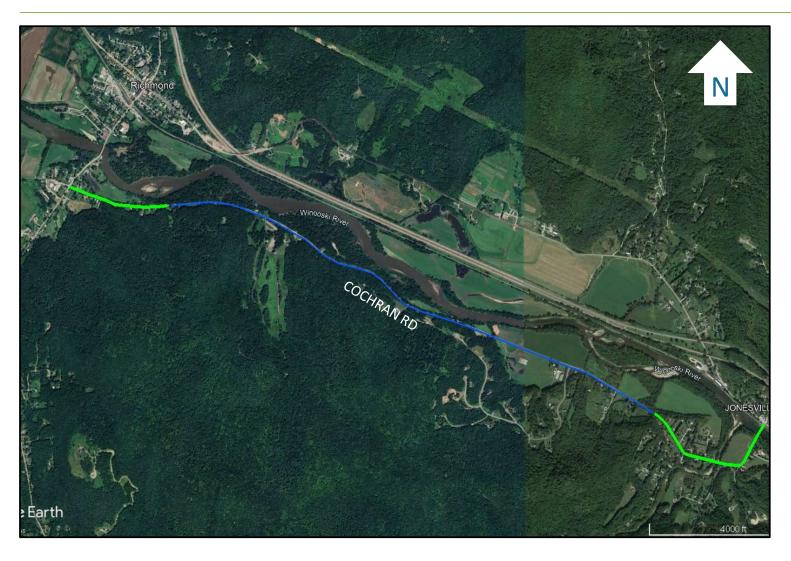
- 1. Improve Pedestrian Safety and connectivity within the Village
- 2. Provide sidewalk on both sides of the road to reinforce village environment
- 3. Consider intersection treatments for traffic calming & safety. Potential curb extensions; Dugway & Wes White Hill
- 4. Consider additional street parking near the meadow and the river for recreational access
- 5. Maintain current traffic calming elements (humps, signs, etc.)







Cochran Road – Feasibility Study

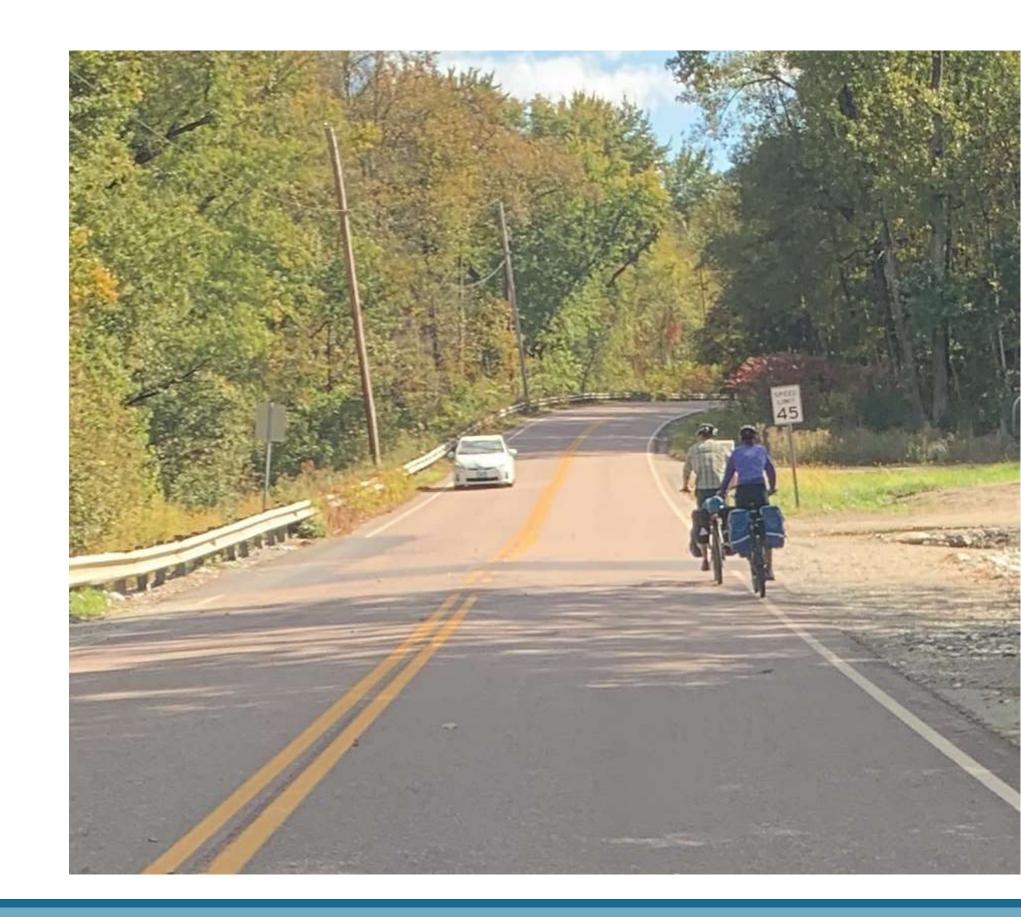


- Length: ~2.5 miles
- Classification: Minor Collector
- ■Right of way: +/- 49.5 feet (3 Rods)
- Pavement width: +/- 22-24 feet
- ■Lane width: +/- 11 feet (9/2)
- ■AADT (May-June 2023):
 - Daily total **2,700 vehicles per day**
- ■Speed limit 25/45/25 mph
- ■Truck Route (24,000-pound limit)

Cochran Road

Concept ideas:

- 1. Improve Pedestrian and Bicycle Safety and mobility along the roadway
- 2. Provide connectivity between village centers
- 3. Provide access to recreational areas such as Overocker Park and the Winooski river, ski area, etc.
- 4. Allow for healthy transportation alternatives



Cochran Road

Challenges:

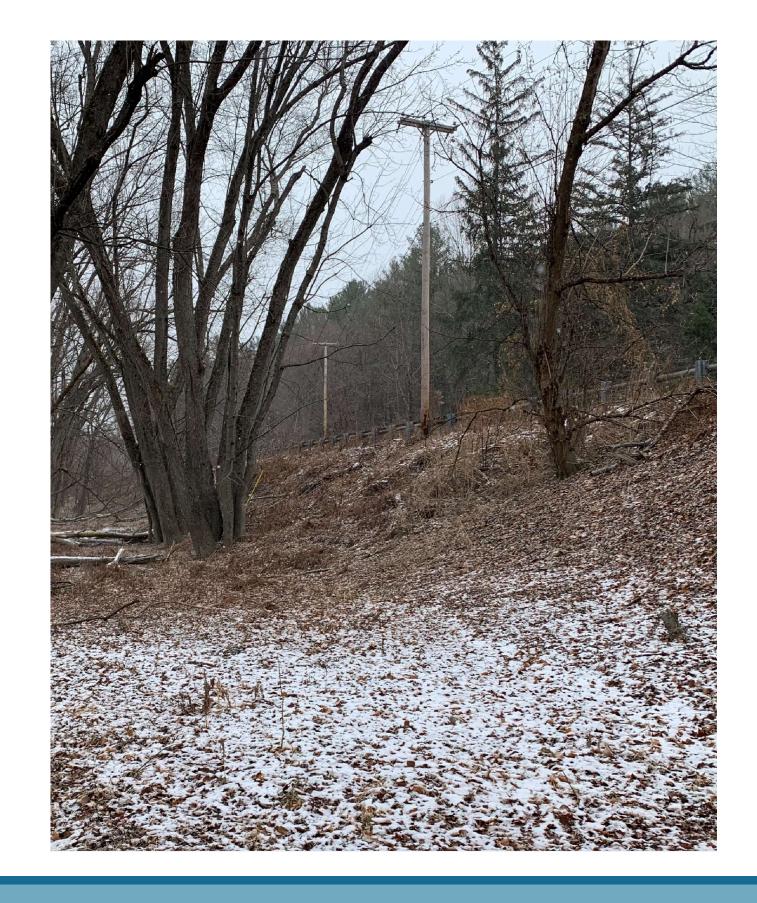
- 1. Steep uphill grades on Mountain side (south side)
- 2. 45 MPH speed limit
- 3. Roadway curves and limited sight distance
- 4. Ledge outcroppings



Cochran Road

Challenges Cont'd:

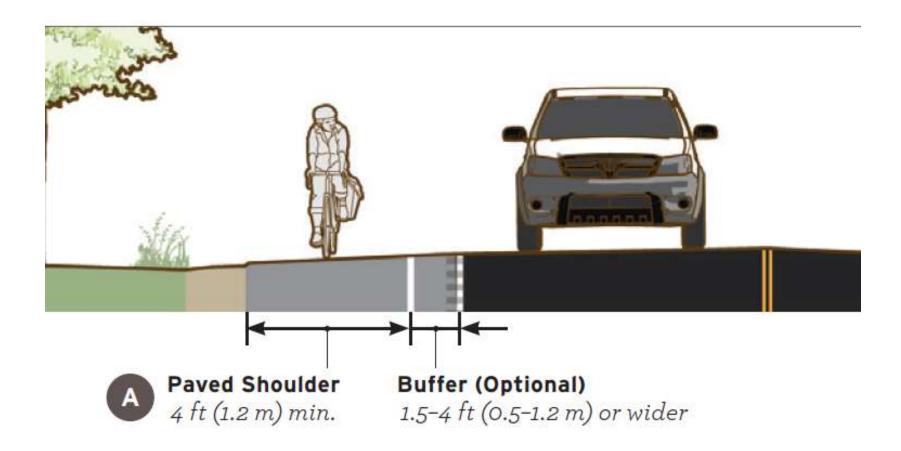
- 1. Steep downgrades on River side (north side)
- 2. Floodplain concerns
- 3. 45 MPH speed limit
- 4. Roadway curves and limited sight distance



Paved Shoulder Concept

- 1. Expands current 22 ft Roadway
- 2. Adds a 6-8 ft Paved Shoulder to each side
- 3. Improves Pedestrian & Bicycle Safety





Functional classification	Volume (AADT)	Speed (Mi/h)	Recommended Minimum Paved Shoulder Width
Minor Collector	up to 1,100	35 (55 km/h)	5 ft (1.5 m)
Major Collector	up to 2,600	45 (70 km/h)	6.5 ft (2.0 m)
Minor Arterial	up to 6,000	55 (90 km/h)	7 ft (2.1 m)
Principal Arterial	up to 8,500	65 (100 km/h)	8 ft (2.4 m)

Next Steps — how to stay involved

Project Introduction – March 26, 2024

Task 1. Local Concerns Meeting – April 9

Task 2. Village Scoping Study – (Oct – Jan)

Public Meeting – Feb 2025 (TBD)

Task 3. Traffic Calming Priorities (April)

Task 4. Cochran Road Feasibility Study — (April — May)

Task 5. Study Recommendations (June 2025)

Contact Us!



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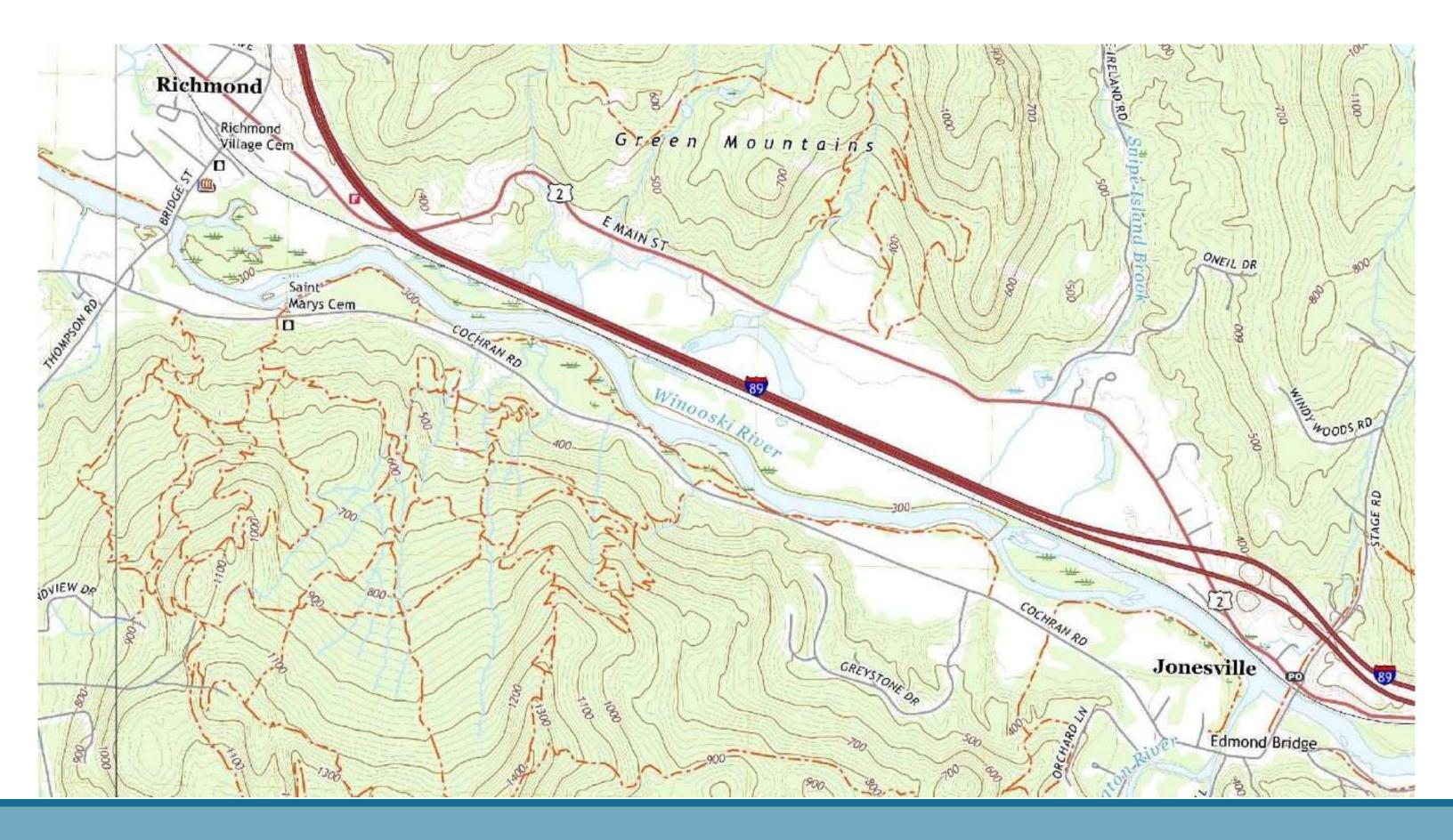
Annabelle Dally

Communications & Public Involvement Manager



https://www.ccrpcvt.org/our-communities/richmond/





Richmond Cochran Road Corridor Study

MONDAY, FEBRUARY 10, 2025

7:00 PM



Project Team







Keith Oborne

Director of Planning and Zoning

Jason Charest, PE, PTP

Senior Transportation Planning Engineer

Erik Maki, PE, PTOE

Senior Director, Traffic Engineering

Annabelle Dally

Communications & Public Involvement Manager

Jenny Zhang

Urban designer



Agenda

- Project Context
- Project Goals
- Local Concerns Meeting Recap
- Purpose and Need Statement
- Draft Improvements
 - Richmond, Jonesville concepts
 - Cochran Road
- Next Steps

Project Context – Cochran Road

- Scoping Study for the two **25mph** village segments; Richmond, Jonesville.
- ■Feasibility Study for the **45mph** middle section; build on the recommendations and alternatives presented in the *Town of Richmond Bike, Walk, and Trails Plan*.
- Traffic Calming review the recently installed traffic calming measures and recommend supplemental devices, if needed.

Project Goals

- 1. Village segments Identify new infrastructure such as sidewalks that can be incorporated
- 2. Corridor segment Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- 3. Evaluate the traffic calming measures and recommend additional solutions or devices.

Local Concerns Meeting-Recap

LCM meeting was held on April 9, 2024. Concerns included:

- •Unsafe conditions for all road users
 - The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- •Limited parking at trails and other recreation sites
- Potential flood plain issues
- •Right-of-Way constraints
- •Village areas lack sidewalks and parking

Purpose and Need Statement

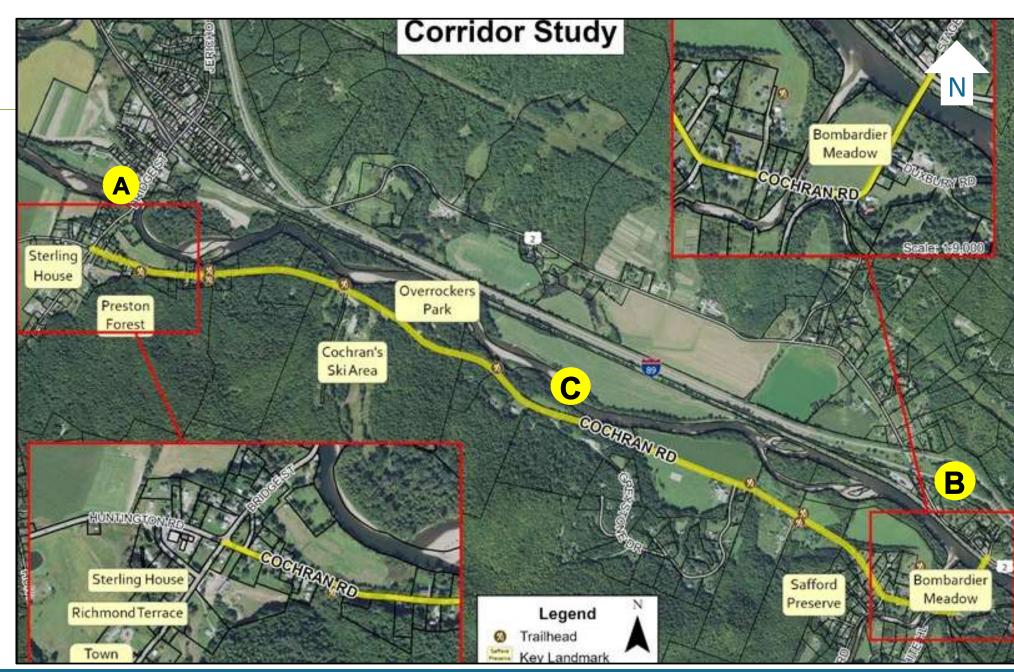
<u>Purpose</u>. The purpose of this project is to develop and identify a recommended alternative for Cochran Road that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

Need. Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous recreational uses attract a variety of motorized and non-motorized users; however, residents are concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking at the recreational sites along the corridor.

Study Area

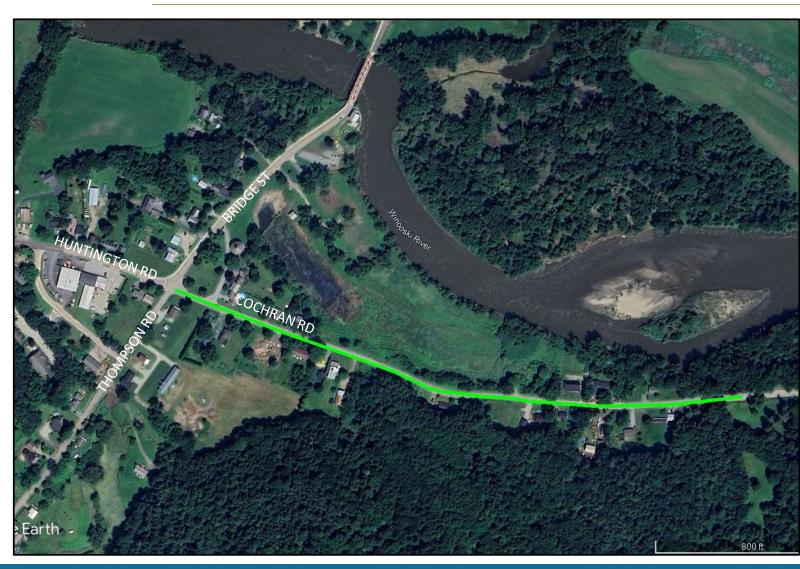
Project Limits:

- A. Richmond Village
- B. Jonesville Community
- C. Cochran Rd corridor ~2.5 miles





Richmond Village Concepts



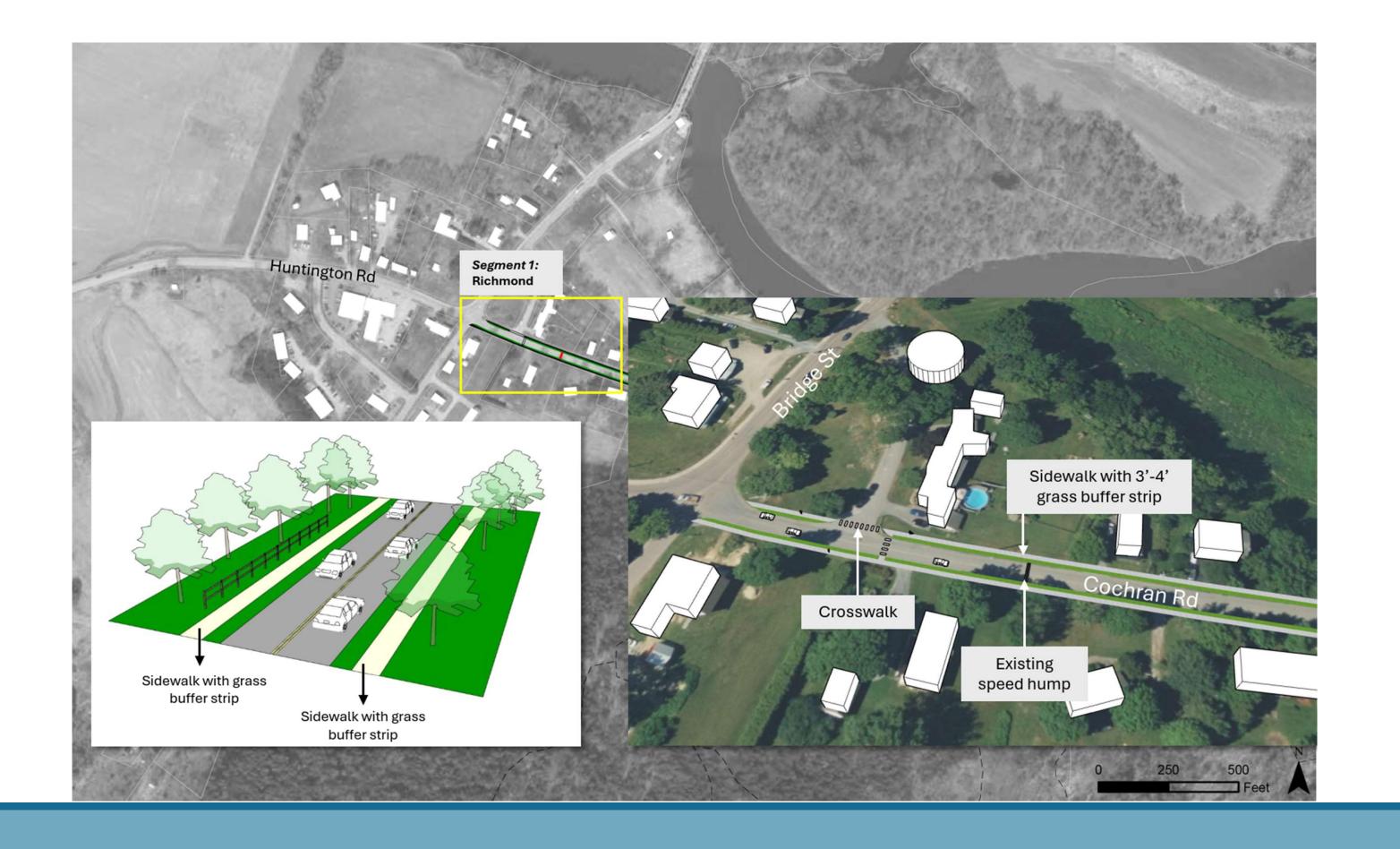


Richmond Village

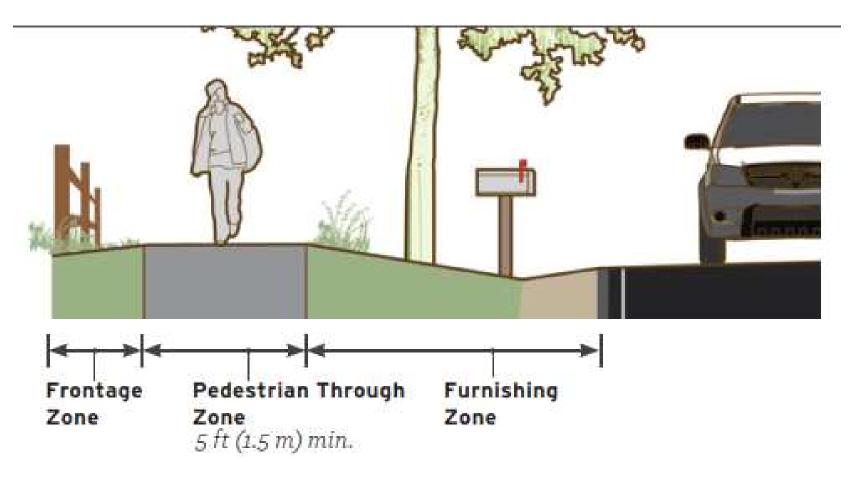
Concept ideas:

- 1. Improve Pedestrian Safety and connectivity within the Village
- 2. Provide sidewalk on both sides of the road to reinforce village environment
- 3. Consider curb extensions and a crosswalk at Round Church Rd for structure
- 4. Continue sidewalk to Preston Forest Trail at the cemetery for recreation
- 5. Maintain current traffic calming elements (humps, signs, etc.)









* Cochran Road layout is 3 rods (49.5 ft) and should have about 13 ft. available on each side for sidewalks.

Table 4-3. Minimum recommended dimensions for sidewalks

Volume And User Mix	Frontage Zone	Pedestrian Through Zone	Furnishing Zone	Total Width
Constrained Minimum	1 ft (0.3 m)	5 ft (1.2 m)	2 ft (0.6 m)	8 ft (2.4 m)
Recommended Minimum	2 ft (0.6 m)	6 ft (1.5 m)	4 ft (1.2 m)	12 ft (3.6 m)

Improvement Options:

- 1. Sidewalk with granite curb on north side (2,350 ft) to Trail and cemetery parking
- 2. Sidewalk with granite curb on south side (700 ft) shorter due to ledge/rock
- 3. Signs & Markings for safety alert road users of bikes

Potential Impacts:

•Utilities poles, grading, drainage, Ledge, rock, trees



Richmond Village

Challenges:

- 1. Widening for a sidewalk or separated path on the south side would be costly due to ledge/rock outcroppings
- 2. Potential utility pole relocations



Cost Methodology

- 1. Report on Shared-Use Path and Sidewalk Costs 2020 as reference
- 2. Estimated units of each alternative
- 3. Estimated total costs for preferred alternatives
- 4. Price escalation to 2025 is not included at this time

Note: The estimated total costs for this study are intended for high-level planning purposes only and do not represent a detailed project cost estimate. Factors such as extreme topographic conditions, structures (bridges, retaining walls, tunnels), and other site-specific conditions may lead to increased construction expenses.



Report on Shared-Use Path and Sidewalk Costs January 2020





Produced by the VTrans Bicycle and Pedestrian Program

For further information or questions, contact Jon Kaplan at (802) 498-4742 or jon.kaplan@vermont.gov

The information in this report should be used for planning or verification purposes only and is not intended to substitute for "good engineering judgment" and detailed project cost estimates.

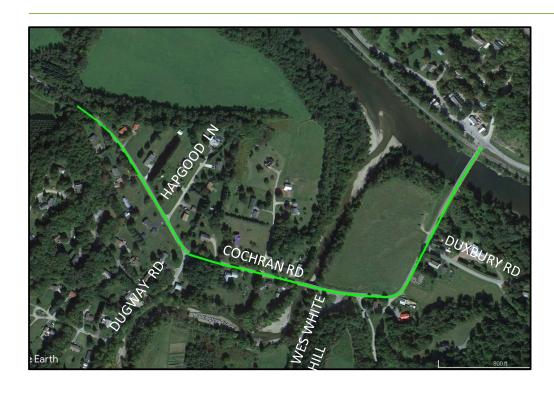
Richmond Options Menu: Preliminary Estimated Cost

Alternatives	Cost Per Unit	Estimated Distance	Total Cost
1. Sidewalk on North Side	\$317/foot	Sidewalk: 2350 FT	\$745,000
2. Sidewalk on South Side	\$317/foot	Sidewalk: 700 FT (shorter due to Ledge/Rock)	\$225,00
3. Signs & Markings for safety	Crosswalk Markings: \$14/ LF	Crosswalk Markings: 50 FT & misc. Traffic Signs	\$10,000
4. Other; Ledge/rock, utility conflicts, misc.		Estimated at 5% of sidewalk cost	\$50,000
5. Grading & Drainage		Estimated at 15% of sidewalk cost	\$150,000
Design Engineering & Surveying		Engineering at 10%	\$100,000
		TOTAL	\$1,280,000

Source for per foot cost: 2020 VTrans Bicycle and Pedestrian Program Unit Cost Report and no price escalation has been included.

Note: Estimated cost does not include any required permits and easements.

Jonesville Community Concepts



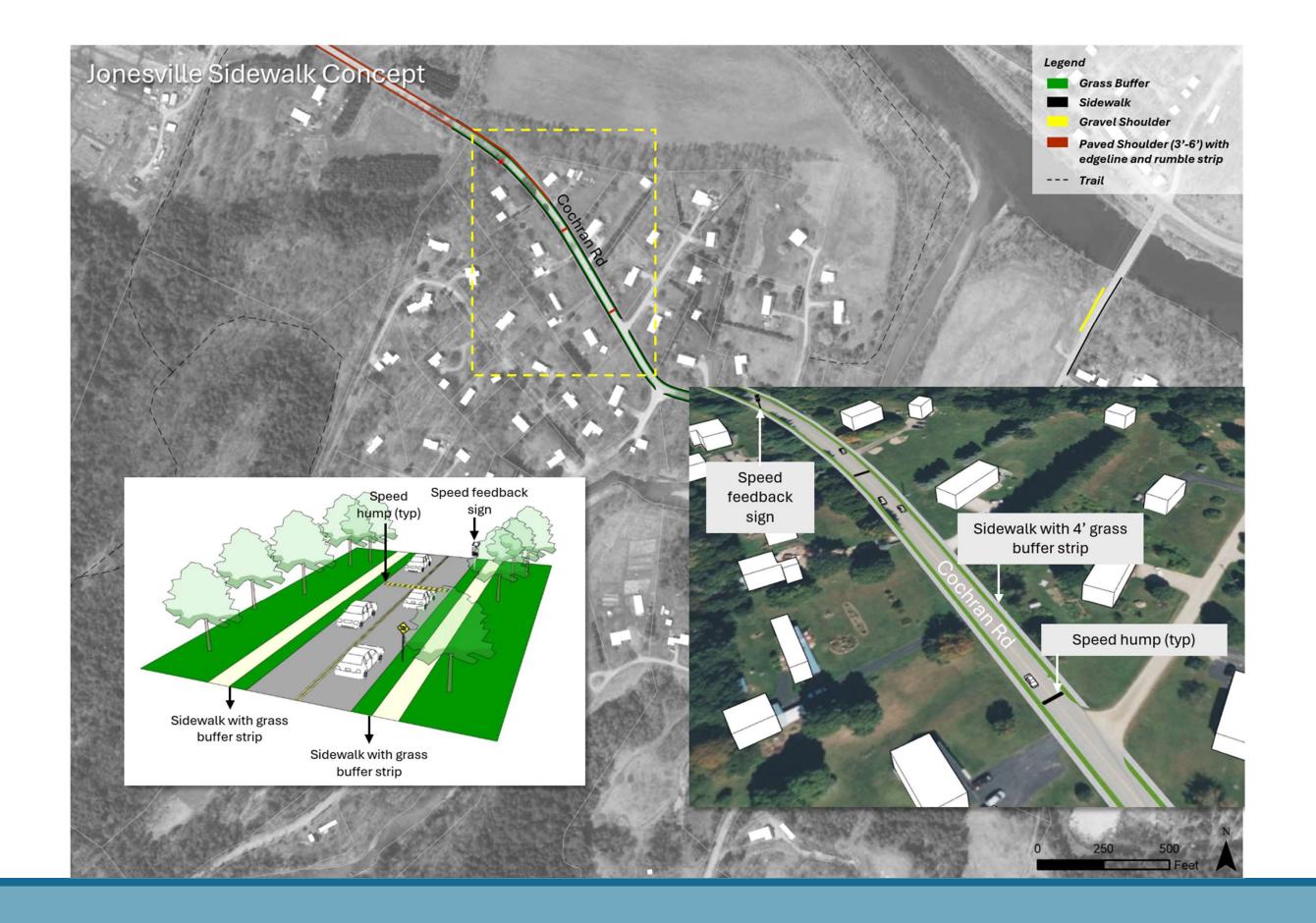


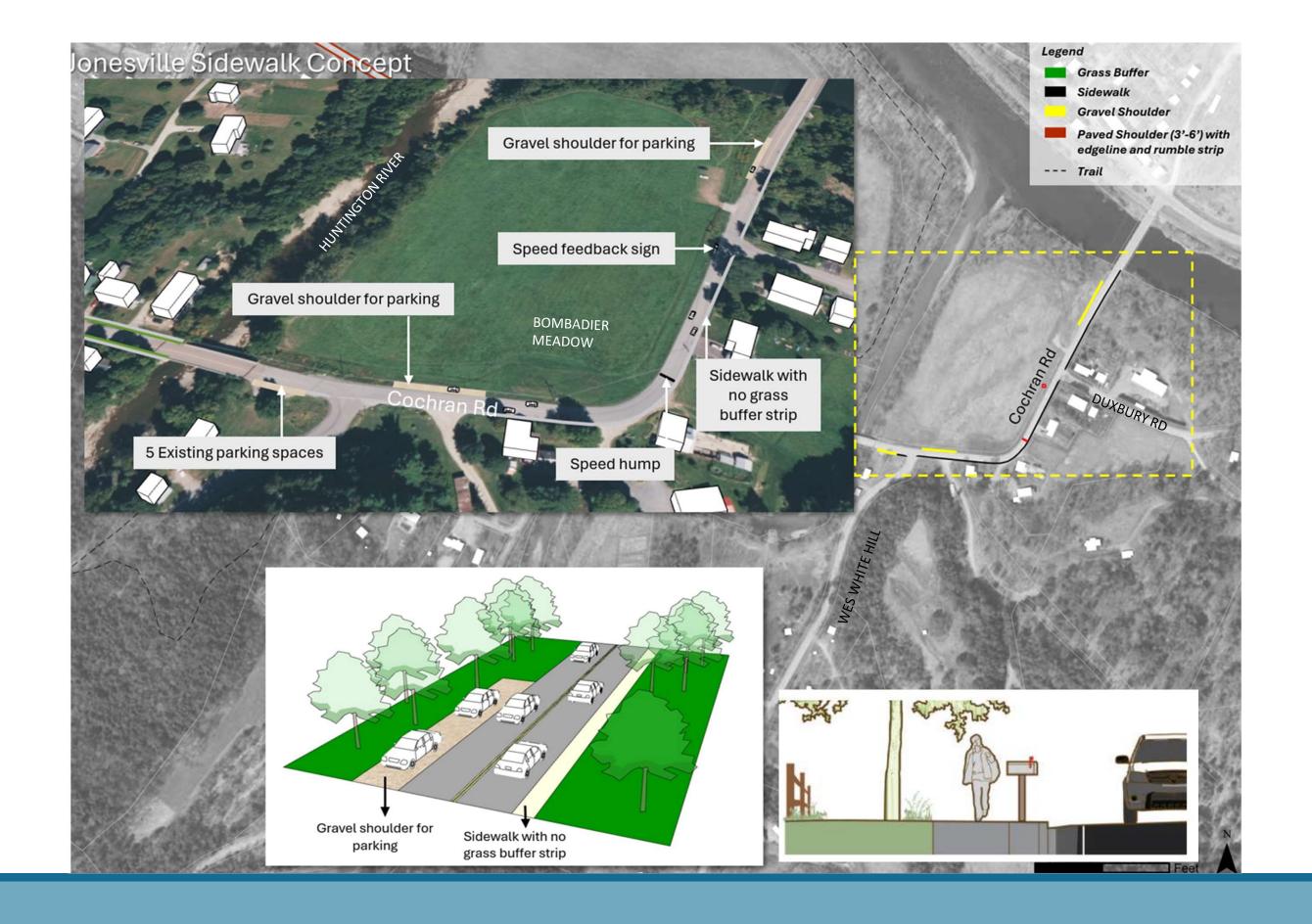
Jonesville Community

Concept ideas:

- 1. Improve Pedestrian Safety and connectivity within the Village
- 2. Provide sidewalk on both sides of the road to reinforce village environment
- 3. Consider intersection treatments for traffic calming & safety. Potential curb extensions; Dugway & Wes White Hill
- 4. Consider additional street parking near the meadow and the river for recreational access
- 5. Maintain current traffic calming elements (humps, signs, etc.)







Improvement Options:

- 1. Sidewalk with granite curb on north side (1500 ft)
- 2. Sidewalk with granite curb on south side (1750 ft)
- 3. Signs & Markings for safety alert road users of bikes
- 4. Gravel Parking

Potential Impacts:

- •Utilities poles
- *Grading/drainage*
- Trees



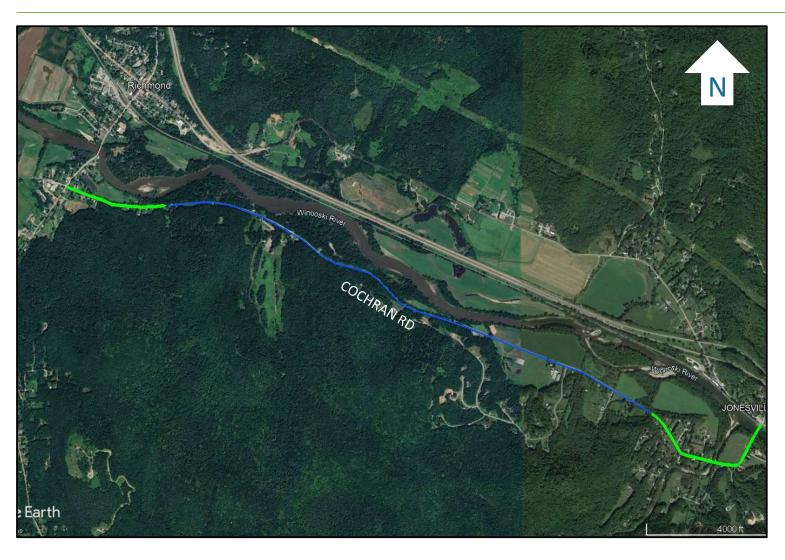
Jonesville Options Menu: Preliminary Estimated Cost

Alternatives	Cost Per Unit	Estimated Distance	Total Cost
1. Sidewalk on North Side	\$317/foot	Sidewalk: 1500 FT	\$475,500
2. Sidewalk on South Side	\$317/foot	Sidewalk: 1750 FT	\$555,000
3. Signs & Markings for safety	Crosswalk Markings: \$14/ LF	Crosswalk Markings: 75 FT Traffic Signs	\$10,000
4. Gravel parking spaces		Estimated at \$3,000 each	\$6,000
5. Grading & Drainage		Estimated at 15% of sidewalk cost	\$155,000
Design Engineering & Surveying		Engineering at 10%	\$103,000
		TOTAL	\$1,304,500

Source for per foot cost: 2020 VTrans Bicycle and Pedestrian Program Unit Cost Report and no price escalation has been included.

Note: Estimated cost does not include any required permits and easements.

Cochran Road – Feasibility Study

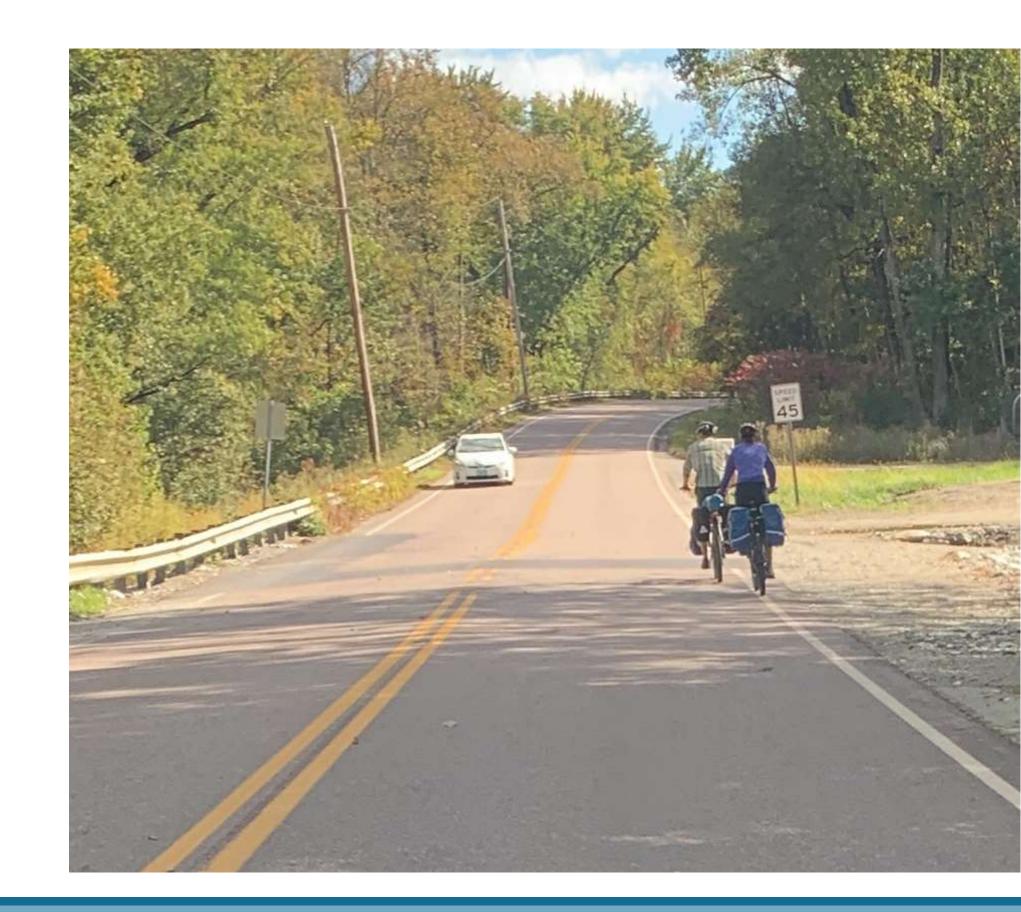


- Length: ~2.5 miles
- Classification: Minor Collector
- ■Right of way: +/- 49.5 feet (3 Rods)
- Pavement width: +/- 22-24 feet
- ■Lane width: +/- 11 feet (9/2)
- ■AADT (May-June 2023):
 - Daily total 2,700 vehicles per day
- ■Speed limit 25/45/25 mph
- ■Truck Route (24,000-pound limit)

Cochran Road

Concept ideas:

- 1. Improve Pedestrian and Bicycle Safety and mobility along the roadway
- 2. Provide connectivity between village centers
- 3. Provide access to recreational areas such as Overocker Park and the Winooski river, ski area, etc.
- 4. Allow for healthy transportation alternatives



Cochran Road

Challenges:

- 1. Steep uphill grades on Mountain side (south side)
- 2. 45 MPH speed limit
- 3. Roadway curves and limited sight distance
- 4. Ledge outcroppings



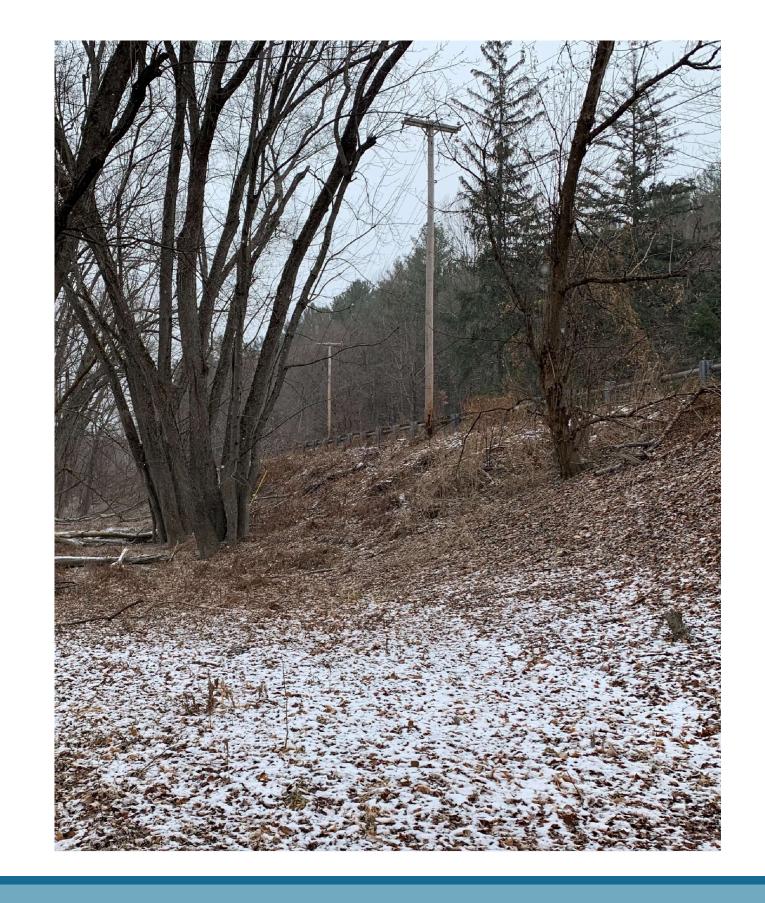
Cochran Road

Challenges Cont'd:

- 1. Steep downgrades on River side (north side)
- 2. Floodplain concerns

Improvement Options:

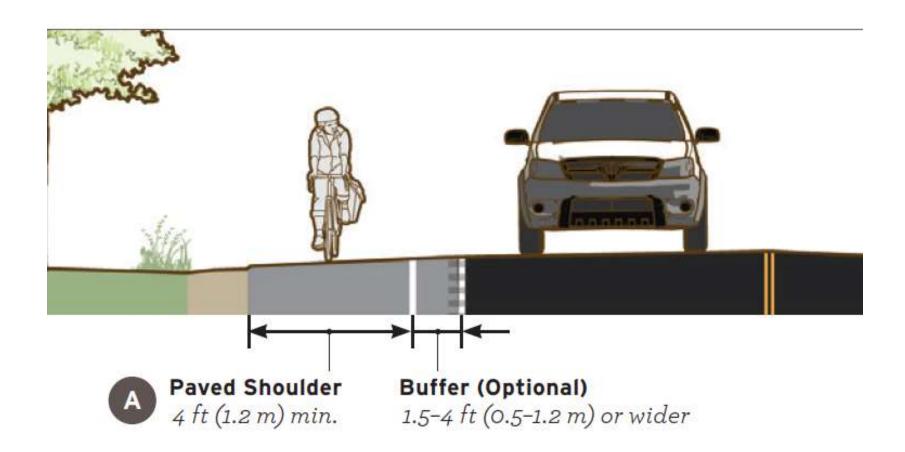
- 1. Paved Shoulder Concept
- 2. Warning & Advisory Signs and Markings



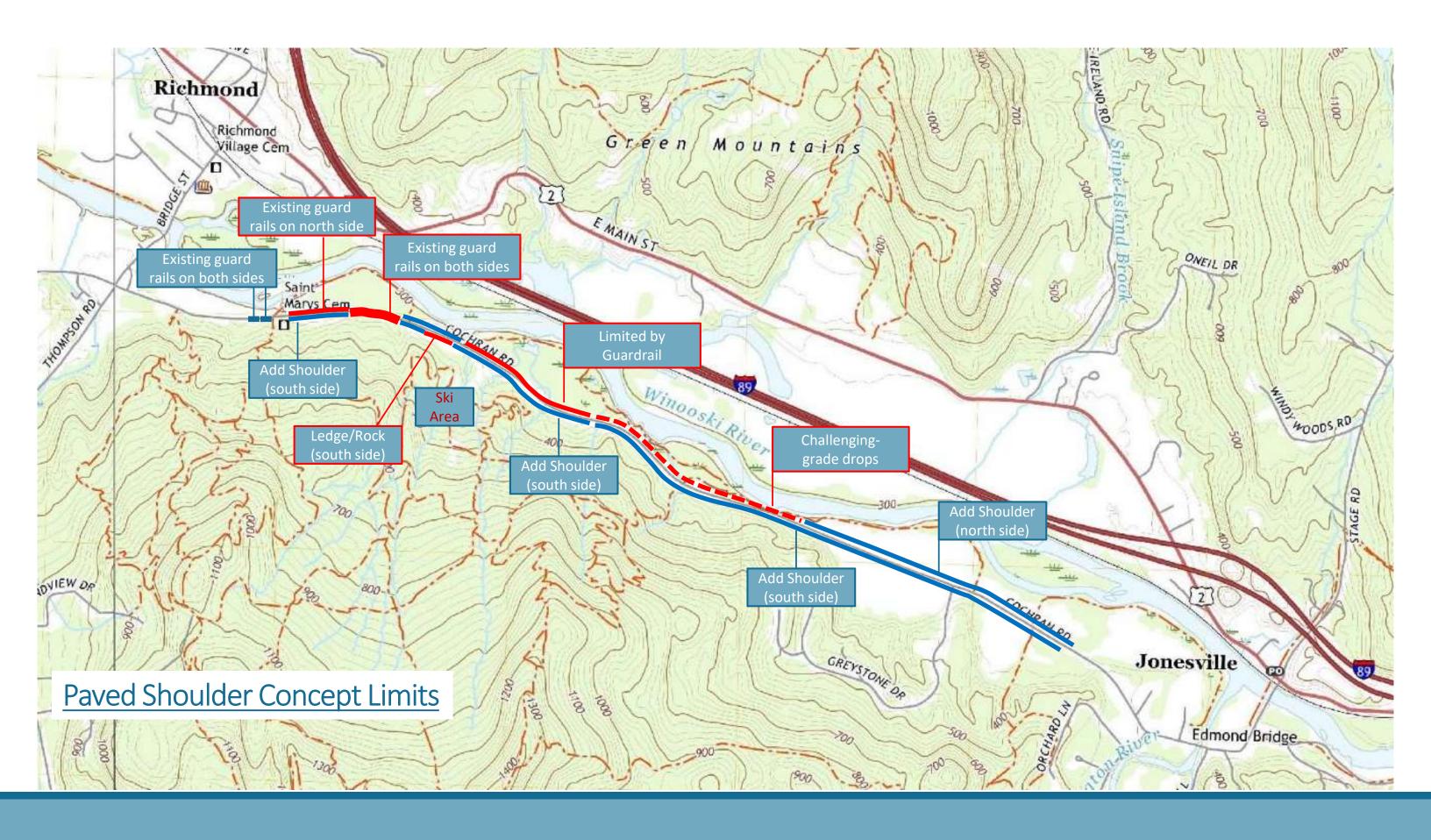
Paved Shoulder Concept

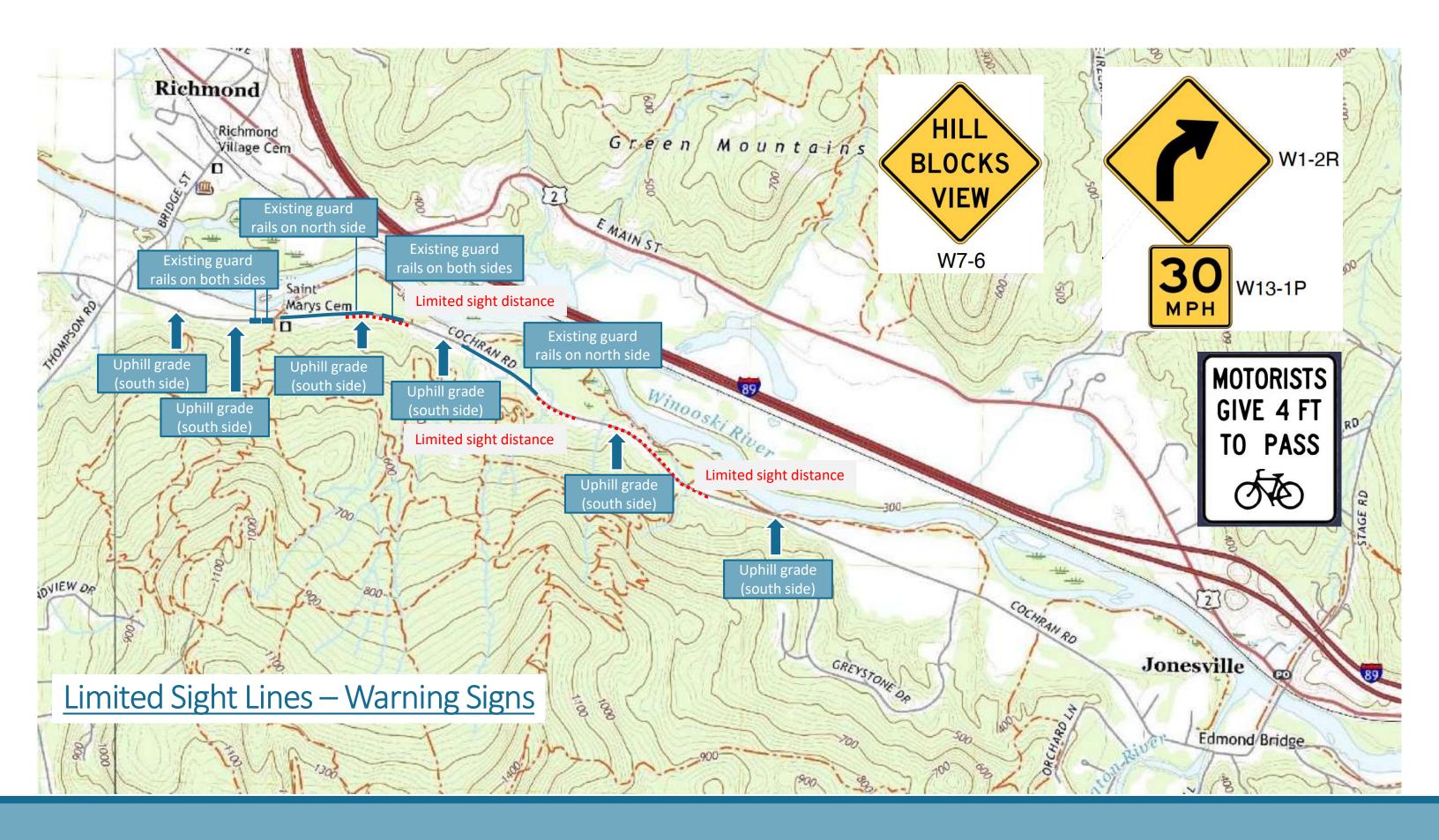
- 1. Expands current ~22 ft Roadway
- 2. Adds a 6 ft Paved Shoulder to each side
- 3. Improves Pedestrian & Bicycle Safety





Functional classification	Volume (AADT)	Speed (Mi/h)	Recommended Minimum Paved Shoulder Width
Minor Collector	up to 1,100	35 (55 km/h)	5 ft (1.5 m)
Major Collector	up to 2,600	45 (70 km/h)	6.5 ft (2.0 m)
Minor Arterial	up to 6,000	55 (90 km/h)	7 ft (2.1 m)
Principal Arterial	up to 8,500	65 (100 km/h)	8 ft (2.4 m)





Cochran Road Options Menu: Preliminary Estimated Cost

Alternatives	Cost Per Unit	Estimated Distance	Total Cost
1. Paved Shoulder on North Side	\$510,000/mile	Shoulder: 1.0 mile (limited by grades drops)	\$ 510,000
2. Paved Shoulder on South Side	\$510,000/mile	Shoulder: 2.5 mile	\$1,275,000
3. Pavement Markings & traffic signs for safety	\$3.25/foot \$500/each	Pavement markings, Traffic Signs & symbols	\$85,800 \$10,000
4. Gravel parking spaces along the road		Estimated at \$3,000 each Say 8 spots	\$24,000
5. Grading & Drainage		Estimated at 15% of paved shoulder cost	\$267,750
Design Engineering & Surveying		Engineering at 10%	\$300,000
		TOTAL	\$2,472,550

Source for per foot cost: 2020 VTrans Bicycle and Pedestrian Program Unit Cost Report and no price escalation has been included.

Note: Estimated cost does not include any required permits and easements.

Vtrans Cost/Foot Examples

Table 1 – 5 ft. Wide Sidewalk Unit Costs

Curb/Walk Configuration	Basic Cost/Foot	Total Cost/Foot
Concrete Walk w/No Curb	\$63	\$184
Concrete Walk w/Granite Curb	\$109	\$317
Concrete Walk w/Concrete Curb	\$95	\$277
Bituminous Walk w/No Curb	\$33	\$94
Bituminous Walk w/Granite Curb	\$78	\$227
Bituminous Walk w/Concrete Curb	\$64	\$187
Aggregate Walk w/No Curb	\$28	\$68
Aggregate Walk w/Granite Curb	\$74	\$214
Aggregate Walk w/Concrete Curb	\$60	\$175

The "total" cost reflects the combined cost of sidewalk construction with other costs that are incidental to the construction. For example, pavement markings, new signs, traffic control, contractor mobilization, drainage, and landscaping are included in the total costs.

Table 2 - Shared Use Path Unit Costs

Shared Use Path Configuration	Basic Cost/Foot	Total Cost/Foot
8 Ft. Wide Bituminous Concrete Path	\$71	\$297
10 Ft. Wide Bituminous Concrete Path	\$82	\$342
12 Ft. Wide Bituminous Concrete Path	\$92	\$384
8 Ft. Wide Aggregate Surface Path	\$64	\$267
10 Ft. Wide Aggregate Surface Path	\$72	\$301
12 Ft. Wide Aggregate Surface Path	\$80	\$334

Pavement markings, new signs, traffic control, drainage, and landscaping are included in the total costs



Report on Shared-Use Path and Sidewalk Costs January 2020





Produced by the VTrans Bicycle and Pedestrian Program

For further information or questions, contact Jon Kaplan at (802) 498-4742 or jon.kaplan@vermont.gov

Next Steps — how to stay involved

Project Introduction – March 26, 2024

Task 1. Local Concerns Meeting – April 9

Task 2. Village Scoping Study – (Oct – Jan)

Public Meeting – Feb 2025 (this meeting)

Task 3. Traffic Calming Priorities (April)

Task 4. Cochran Road Feasibility Study — (April — May)

Task 5. Study Recommendations (June 2025)

Contact Us!



Jason Charest, PE, PTP

Senior Transportation Planning
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Annabelle Dally

Communications & Public Involvement Manager



https://www.ccrpcvt.org/our-communities/richmond/



APPENDIX

B

MEETING MINUTES

Draft Richmond Transportation Committee

Meeting Minutes - March 26, 2024

Committee members present: Chris Cole (Chair), Cathleen Gent (Vice Chair), Jon Kart, Keith Jennings and Susan Wells

Others present: Keith Oborne (Town Planner), Jason Charest (CCRPC), and from WSP - Erik Maki, Kevin McCarthy, Annabelle Dally. Also Bob Galvin from the Richmond Conservation Commission.

All attended remotely.

A quorum was reached, and the Chair convened the meeting at 5:32pm.

- 1. Welcome and Public Comments: No public comments.
- **2. Revisions to Agenda:** Wells asked to add an update on Share the Road.
- **3.** Approve Minutes from March 12, 2024 meeting: There were no corrections or additions to the minutes. Wells motioned to accept the minutes, Kart seconded, passed unanimously.
- **4. Cochran Road Study Local Concerns Meeting WSP docs and set date:** Bob Galvin from the Richmond Conservation Commission asked if there is any willingness of the Transportation Committee to consider wildlife friendly infrastructure in the scoping study process. There is potential funding available in the Richmond Conservation Reserve Fund. The Commission is identifying potential amphibian crossing hotspots and what species are crossing in those places. Preliminary data to indicate where the problematic areas will be available soon. Cole said this would be of interest to the Committee and suggested that members of the Conservation Commission attend the Local Concerns meeting.

Discussion about the Local Concerns Meeting (LCM). Date set for April 9. WSP presented a draft Power Point to present to those attending. Committee members gave feedback on the PP. The LCM meeting will focus on goals and areas of the project study and how these fit into the context of prior studies and existing conditions. The point of the LCM is to gather feedback on the issues/concerns. No solutions to be presented. Cole suggested we invite the Parking Advisory Committee to the meeting.

Cole discussed the how the floodplain regulations would affect potential infrastructure of sidewalks and trails near the Kemp farm, which regularly floods. Oborne said that the floodplain regulations allow sidewalks and you can do trails if it's associated with the road. WSP and Oborne can figure that out with our zoning administrator.

Discussion continued about revisions to the slide presentation and the boundaries of the scoping and corridor studies. It will be important to coordinate with the Dubois & King recommendations about speed table placement. The LCM discussion will begin with the two 25 MPH sections. Recommendations will be provided by September-October.

5. THBC status: The Selectboard (SB) will be provided the THBC documents for discussion at the April 1 meeting. A plan for the presentation was discussed and finalized. The TC will recommend having a public hearing and getting information out to adjacent property owners.

6. General Updates

- a. Upper and Lower Bridge Street Bike/Ped project: Upper Bridge St.: Oborne advised the Committee that outreach to affected landowners/businesses/residents about the upper Bridge St. sidewalk projects has been completed. We have concept designs, and we are working through those with property owners. KO will forward those concepts to the committee. Lower Bridge Street: There is not much to update. The town bond failed, so we now have to redesign parking as a result. The disabled parking spaces that are in front of the library will remain but they need to come up to standard. There is no loading zone, for example. We have another meeting at the beginning of next month.
- **b. Gateway Trail Path May 20, 2024 SB presentation:** We can start some planning for that presentation. It is assumed that Dan Malik and Bryan Davis will present the plan.
- 7. **Agenda items for the next meeting:** LCM will take up most of the meeting. Also need to give time to Wells for Share the Road update, especially given the chatter on FPF about regulations for pedestrians, cars and bikers. Also, should talk about the THCB intersection discussion at the SB meeting.
- 6. Adjournment: Motion was made and seconded; passed unanimously. Meeting adjourned at 7:14 pm.

Minutes taken by Susan Wells

Abbreviations used in RTC minutes: ARPA = American Rescue Plan Act of 2021; CCRPC = Chittenden County Regional Planning Commission; D&K = Dubois and King; GMT=Green Mountain Transit; PPL = Project Pipeline Document; RCC=Richmond Conservation Committee; RHC=Richmond Housing Committee; RTC = Richmond Transportation Committee; RVC=Riverview Commons; SB = Selectboard; TAP=Transportation Alternatives Program; THBC = intersection of Thompson Rd, Huntington Rd, Bridge St, and Cochran Rd; UPWP = Unified Planning Work Program; VDH = VT Dept. of Health; VPSP2=Vermont Project Selection and Project Prioritization; VTRANS=Vermont Agency of Transportation.

Richmond Transportation Committee

Meeting Minutes – April 9, 2024

Committee members present: Chris Cole (Chair), Cathleen Gent (Vice Chair), Jon Kart, Susan Wells

Others present: Keith Oborne (Town Planner), Jason Charest (CCRPC), Eric Maki (WSP), Anabelle Dally (WSP), Kevin McCarthy (WSP), Zachary Gavel (WSP), Allen Knowles, Lisa Kory, Andrew Bessette, Bailee, Tom O'Brien, Ann Naumann, Chuck Gilroy, OLM, Vicky LaPlante, JBM (Jeff), Martha Waterman, Jeanne, Mary Houle

All attended remotely.

A quorum was reached and the Chair convened the meeting at 5:32 PM.

- 1. Welcome and Public Comments: No public comments for items not on the agenda.
- **2. Revisions to Agenda:** Gent requested that there be a brief update about the Selectboard discussion of the THBC intersection.
- **3.** Approve Minutes from March 26, 2024, meeting: Kart offered a minor amendment. Wells motioned, Kart seconded, amended minutes passed unanimously.
- 4. Share the Road Project Update: Wells recapped that the Transportation Committee formed a Share the Road Subcommittee tasked with doing an educational campaign for road safety for walkers, bicyclists, and cars, focused on how we can all share the road in appropriate ways. That subcommittee came up with a town-wide yard display contest, to create and display a sign or a diorama on lawns to show how people share the road. There are three categories: cars and drivers; bicyclists; and pedestrians. There will be nice prizes (cash, gift cards, and bike light sets from Local Motion). A high school student designed a poster announcing the contest, which will launch May 1. Also, posters will be put up around town, and posts will be done on Front Porch Forum. Judging will be done from May 29-June 5. Wells added that the signs need to be on people's lawns, not on roads. Tom O'Brien asked via chat if there will be a category for horses. Cole suggested that should be added and Wells agreed. Wells will give the Selectboard an update about the share the road contest when they discuss the Cochran Road speed bumps.
- **5. Cochran Road Scoping Study Local Concerns Meeting:** Charest introduced the project, which is a study requested by Richmond as part of the CCRPC annual work program. The Cochran Road Scoping Study has begun and this meeting is the first in the process of public engagement. CCRPC contracted with WSP to do the work on the project. Maki reviewed the agenda and introduced the WSP team members and said that WSP stands for William Sales Partnership, which was a British company in the 1800s. Maki said the WSP team is here to help the town and engage the public with the project. The focus tonight is to hear people's concerns about the roadway, the intersections along Cochran Road, or thoughts about safety or accessibility, challenges on the corridor, so that improvements can be made. Maki reviewed the elements of the scoping project: 1) a scoping study at either end of Cochran Road (where the speed limits are 25 miles per hour) the Richmond village on the western end and Jonesville on the eastern end. 2) a corridor study will be completed for the 2.5 mile middle part of the road, building on the recommendations and some alternatives presented in the recent bike walk and trails plan; 3) traffic calming elements WSP will offer final recommendations using the work that the town did last year with speed tables, and the evaluation reports from Dubois and King.

Maki reviewed some goals of the project: for the east and west village sections – to identify new infrastructure such as sidewalks and maybe trails or paths. Another goal, for the bulk of Cochran Road itself, is to identify on road and off-road improvements and multimodal strategies to address safety capacity and connectivity for pedestrians and cyclists, and horses. He added that Cochran Road is a paved road about 22 to 24 feed wide, that there are no sidewalks and paths, and the speed limit is 45 miles per hour, a speed which makes pedestrians, bicyclists, and horses not feel safe. The third goal is to evaluate the study that was completed for temporary traffic calming measures and recommend permanent traffic calming solutions. Maki pointed to the bike walking trails plan as a really good starting point, and the WSP consultants will look at developing more detailed solutions, after bringing everyone together to talk about local concerns. They will also use the 2018 Town Plan and results from the recent ARPA survey which had a lot of good participation. Maki clarified that the study starts at the western end of Cochran Road where it intersects with Bridge Street, but the study does not include that intersection. The Richmond village area ends where the 25 MPH speed limit goes to 45 MPH, at the cemetery and trail crossing. The Jonesville 25 MPH section also includes several road intersections, and railroad tracks and ends at Route 2. the right of way is about three rods, which is 49.5 feet. Each travel lane is 11 feet. There are no sidewalks, pedestrian facilities, or dedicated bike facilities. The main area of Cochran Road is classified as a minor collector, and the average daily traffic in 2020 was about 950 vehicles on the road, which makes it just below a major collector. Charest looked up and found more recent data, for 2023, when the average daily count was almost 2,700 vehicles, a much higher number than the 2020 data. Maki pointed out that traffic sometimes is diverted to Cochran Road when there is flooding or accidents on Route 2, and that Cochran Road is a designated truck route. The vehicles per day data can be influenced based on the season. Kart added that, last year in 2023, construction was done on Route 2, and many drivers used Cochran Road to avoid that.

Public comments began with Ann Naumann commenting that she uses Cochran Road almost every day for walking or cycling. She thinks there is a large group of drivers who do not understand regulations or statutes with respect to what cars are to do around vulnerable users. She suggested that a major education program is needed in Richmond. O'Brien agreed 100% with Naumann. Although police say there is no enforcement that can be done, they could educate the public and look at specific ways of enforcement based on the laws. OLM(?) said parking is a problem. Cole pointed out that Overrockers is now operational, but did not know the status of Bombardier's meadow for parking. O'Brien said that parking was a temporary measure during Covid. Gilroy, who is on the parking committee, said that the Richmond Land Trust is considering Bombardier's meadow for drop off/pick up or for handicap parking. Gilroy said the parking committee is working on an option for parking on Route 2 along the railroad. Kory said that there is not enough parking on the western end, by the cemetery or the trail heads. When people park there (along the road), it is dangerous to walk along the road. Kory said she often feels very unsafe, that this year has been the first year that she actually sometimes ended up taking the car, for the half mile into the village just because she felt it wasn't safe to walk on the road. Kory added that daily usage is likely to increase more, as people come from all over for Cochran's bike trails, other bike trails, the river, Umiak tubing, etc. and that it is important to design solutions for the future. Kory said that, because of all the traffic and the fact that there are no shoulders for almost the entire length of Cochran Road, which she also walks regularly, that it is dangerous also. When there are guardrails, there is no shoulder between the guardrail and the road. Kory offered the idea to perhaps widen the road for shoulders.

Waterman, a neighbor of Kory's, said she can attest to the unsafe nature of the road for non-vehicular traffic. As a near daily pedestrian and occasional cyclist, Waterman agreed with everything said so far,

including education and enforcement. She said the road is used frequently by people who do not live in Richmond so education may go only so far in terms of mitigating the unsafe conditions. The most effective long-term solution is to create some type of alternative path (sidewalks, and/or bike path) to protect vulnerable users. She said she really hopes those can be explored, as separate paths would be a life-saving measure. Adding sidewalks and bike paths to promote pedestrian and cyclist use, and commuting, will be good for planning for climate change and moving away from fossil fuel dependency. Waterman said she walks with a stroller and kids, and drivers are sometimes distracted or aggressive, either don't realize they are speeding and not giving her enough room or do not care. Education will be limited in affecting drivers who continue to be rushed and distracted, or unlawful, so separate paths are needed.

In response to a question from Charest, Naumann said sidewalks may be good closer to the villages, but thinks in the general road corridor, a path that goes all the way through would be good, perhaps with both directions, like the Burlington bike path. Waterman said she would be thrilled with sidewalks or paths, thinking as a pedestrian. Kory said she would be happy with either. She added that it is even more dangerous walking on the limited shoulders on Cochran Road, adding there is not four feet of distance between the vehicles and walkers. Therefore, a sidewalk in the village ends is better because drivers will not mistake a sidewalk with shoulders. Sidewalks the entire length of Cochran Road are cost prohibitive. Also, regarding maintenance, Kory is concerned that a path may end up full of snow and slush, because then it is not usable. Sidewalks in town are well maintained and nice no matter the weather. People are using the sidewalks. Bailee said that sections A and B have enough density so sidewalks would be appropriate. On the remaining length of Cochran Road, a sidewalk would be very expensive, and it would not be appropriate because there is not the density of a village setting. Off alignment would be a good option there. For a sidewalk/path for the entire length between Richmond village and Jonesville, there could be a lot of land issues (ownership and what will the town do). Jeff said that there is enough road right of way within the 49.5 feet. He agreed with Waterman that there are a lot of vehicles not from Richmond or passing through, and everyone needs to be educated to share the road. It is sometimes difficult to pass cyclists on the blind turns in the road. He said he hopes we can do better for the community, and use the corridor more safely. Jeff offered several suggestions, perhaps straightening the road and improving visibility, widen the road, and add better shoulders. He said he observes a lot of distracted drivers constantly looking down at phones and it is frightening.

Houle thanked the consultants for the update. She has lived on Cochran Road since 1959, and has seen many changes on the road. She said the road was not constructed for bicycles and pedestrians and that kind of access. She said she will not be giving away her land for anyone to widen the road. She also added that she does not want to speed limit to change from 45 MPH. Houle asked where she can get a tape of the meeting and Cole suggested she reach out to the director of Planning and Zoning.

Charest said that a dedicated project web page will be added to the CCRPC web site, where materials will be posted and provide a central place for anyone interested in the study progress.

Gilroy said he lives on Dugway Road and travels Cochran Road regularly. He has seen many of the walkers at this meeting and is one of the people who goes out of his way to give walkers plenty of room. His question pertained to the part of the road toward Jonesville, where it narrows, whether that is in the floodplain and, if so, can there be infrastructure built there. Cole responded that it depends on

regulations in terms of what materials may be used for the type of path or sidewalk. Houle also commented on that question.

Naumann pointed out that there are a lot of different users and people may feel they are not getting what they want. Her question is how to make it truly work with pedestrians, bicyclists, and drivers. For this project to work, she suggested that different users must increase our awareness, and look out for each other. Waterman added that the ways people use the road will not change, and we will likely see an increase in all types of users. Paths to promote the safety of non-motor traffic will also protect drivers since they will not have to swerve to avoid pedestrians or cyclists. All the measures we are discussing would serve to promote the safety of all users.

Cole said that there will be more opportunities throughout the study process. He encouraged people to stay involved, as the best way to design these projects is through the democratic process when everyone weighs in, and then try to develop improvements into a plan for infrastructure, an educational program, etc. Cole also reviewed the project calendar milestones. Charest discussed the traffic calming work done last summer and how this project will review the traffic calming measures.

Bessette offered a "radical" idea of turning Cochran Road into a one-way road. Several people agreed that could offer a safe solution, but questions remain about how that would work for local traffic, logistics, emergency vehicles, etc. Maki pointed out that the full width of the road right-of-way is available for infrastructure improvements. Houle said that the town does not own the land below the right-of-way.

Maki discussed the next steps and Charest thanked everyone for participating.

- **6. THBC Update from Selectboard meeting:** Cole gave a brief update from the presentation he and Kart made to the Selectboard. Oborne noted that the Selectboard is inviting the public to attend their meeting on May 6th to offer comment about the two options.
- **7. Agenda Items for Next Meeting:** Cochran Road scoping project, Upper and Lower Bridge Street. Oborne said he will send out sidewalk design documents for Upper and Lower Bridge Street for committee comments.
- 8. Adjournment: Motion to adjourn by Gent, seconded by Kart. Passed unanimously. Meeting adjourned at 7:07 PM.

Minutes taken by Cathleen Gent

Abbreviations used in RTC minutes: ARPA = American Rescue Plan Act of 2021; CCRPC = Chittenden County Regional Planning Commission; D&K = Dubois and King; GMT=Green Mountain Transit; PPL = Project Pipeline Document; RCC=Richmond Conservation Committee; RHC=Richmond Housing Committee; RTC = Richmond Transportation Committee; RVC=Riverview Commons; SB = Selectboard; TAP=Transportation Alternatives Program; THBC = intersection of Thompson Rd, Huntington Rd, Bridge St, and Cochran Rd; UPWP = Unified Planning Work Program; VDH = VT Dept. of Health; VPSP2=Vermont Project Selection and Project Prioritization; VTRANS=Vermont Agency of Transportation.



MEETING NOTES

SUBJECT: Cochran Road Corridor Study – Advisory Committee Meeting #1 (redux)

DATE: Monday, October 7, 2024, 7:00-9:00 PM

LOCATION: Richmond Town Center Meeting Room (203 Bridge Street, 3rd Floor) / Zoom

WSP attended the October 7, 2024, Town of Richmond Selectboard Meeting to present an update on the Cochran Road Corridor Study. The intent of the meeting was to introduce the study to the reformed Advisory Committee (the Town of Richmond Selectboard) by providing an overview of the study's purpose and need and a recap of the Local Concerns Meeting that was held on April 9, 2024 and to allow the Advisory Committee and the public a chance to provide additional comment.

Keith Oborne, Town of Richmond's Director of Planning and Zoning, and Jason Charest, Senior Transportation Planning Engineer with the CCRPC, provided a brief introduction of the study. Erik Maki, Senior Director of Traffic Engineer with WSP, presented additional study background, an update, and next steps. The presentation was followed by an open discussion with the Selectboard/Advisory Committee and members of the public.

PRESENTATION

PROJECT CONTEXT

- Scoping Study for the two 25mph village segments; Jonesville, Richmond.
- <u>Feasibility Study</u> for the middle section; build on the recommendations and alternatives presented in the Town of Richmond Bike, Walk, and Trails Plan.
- <u>Traffic Calming</u> review the recently installed traffic calming measures and recommend supplemental devices, if needed.

PROJECT GOALS

- <u>Village segments</u> Identify new infrastructure such as sidewalks that can be incorporated
- <u>Corridor segment</u> Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- Evaluate the traffic calming measures and recommend additional solutions or devices.

LOCAL CONCERNS MEETING RECAP

LCM meeting was held on April 9, 2024. Concerns included:

- Unsafe conditions for all road users
 - o The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- Limited parking at trails and other recreation sites
- Potential flood plain issues

- Right-of-Way constraints
- Village areas lack sidewalks and parking

DRAFT PURPOSE AND NEED STATEMENT

Purpose

• The purpose of this project is to develop and identify a recommended alternative for Cochran Road that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

Need

Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and
alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous
recreational uses attract a variety of motorized and non-motorized users; however, residents are
concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking
at the recreational sites along the corridor.

CONCEPTUAL ALTERNATIVES - INITIAL DISCUSSION

Study Area

- Richmond
- Jonesville
- Cochran Road

Conceptual Alternatives

- Richmond Village
- Jonesville Village
- Mid-corridor
- Traffic Calming

Richmond

- Initial Ideas:
 - Assess speed hump and consider supplemental devices
 - Sidewalk on both sides near Bridge Street
 - Curb extension and Crosswalks at Round Church Rd
 - Continue sidewalk on South side of Cochran Rd to Preston Forest Trail
 - Improve Pedestrian Safety and connectivity
- Sidewalks
 - Adjacent to Street, or Separated with Grass Strip
 - Materials:
 - Asphalt
 - Concrete

Jonesville

- Initial ideas:
 - Assess speed humps and consider supplemental devices
 - Improve Pedestrian Safety and connectivity sidewalks
 - Consider intersection treatments for traffic calming & safety
 - Curb Extensions; Dugway & Wes White Hill
 - Consider street parking near fields
- Dugway Road
 - Initial ideas:
 - Curb Extensions
 - Sidewalks or natural material sidepaths
 - Crosswalks
 - Street parking
- Wes White Hill Road

- Initial ideas:
 - Curb Extensions
 - Sidewalks or natural material sidepaths
 - Crosswalks
 - Field parking
 - Bike treatment over the Bridge

Cochran Road Corridor

- Existing Conditions
 - Length: ~2.5 miles
 - Classification: Minor Collector
 - Right of way: +/-49.5 feet (3 Rods)
 - Pavement width: +/-22-24 feet
 - Lane width: +/-11 feet (9/2) ②AADT (May-June 2023):
 - Daily total -2,700 vehicles per day
 - Speed limit -25/45/25 mph
 - Truck Route (24,000-pound limit)
- Alt 1. Sidewalks and Natural Surface Trail
- o Alt 2. Multiuse Path
- Gravel Shoulder Concept
 - Maintains 22 ft Roadway
 - 6-8 ft Gravel Shoulder Added
 - Improves Pedestrian Safety
 - Maintains Local Priority & Community Livability
 - Improved Connectivity
- o Paved Shoulder Concept
 - Maintains 22 ft Roadway
 - 6-8 ft Paved Shoulder Added with Rumble Strip and Buffer
 - Improves Pedestrian & Bicycle Safety
- o Multiuse Path Concept
 - Maintains 22 ft Roadway
 - Separated 10-12 ft Shared Use Path Added
 - May be Paved or Compacted Stone Dust
 - Improves Pedestrian Safety & Comfort
 - Encourages more Ridership
 - Improved Connectivity

NEXT STEPS

- Project Introduction March 26, 2024
- Task 1. Local Concerns Meeting April 9
- Task 2. Village Scoping Study (Oct Nov)
- Task 3. Traffic Calming Priorities (Dec)
- Task 4. Cochran Road Corridor Study (Dec Feb)
- Task 5. Study Recommendations (Feb Mar)

PUBLIC COMMENTS/QUESTIONS

- Bard Hill (Selectboard/Advisory Committee Member) A few quick questions. First thanks for much
 for doing this. I personally find the maps really helpful. I have one sort of engineering protocol
 question. I noted that Round Church Road there is a crosswalk that connects to nothing. At some
 point in the past people have mentioned you don't do crosswalks unless there are sidewalks on
 both end. So?
- Erik Maki (WSP) so the intent on that graphic is there would be some sort of sidewalk that continues on that side of the roadway unless it was decided that it was not needed then the

crosswalk would be eliminated.

- Bard Hill (Selectboard/Advisory Committee Member) Okay, so that answers my question.
 Generally crosswalks are used not just for traffic calming but to connect sidewalks.
- Erik Maki (WSP) Right. Absolutely.
- Bard Hill (Selectboard/Advisory Committee Member) So then my other question has to do with ROW. Should I construe that the magenta lines, the dark red lines here on the various maps, show where the existing ROW for Cochran Road exist? Is that a fair assumption based on what I see?
- Erik Maki (WSP) That is correct. This is from a GIS mapping system so I think this is probably a fair representation of the property lines. One of the things that we intended to do was to see if we can get some actual plans for Cochran Road from the Town if they are available to help delineate that a little more.
- Bard Hill (Selectboard/Advisory Committee Member) That is my follow up question. So when we talked about this hypothetically some time ago. We bumped into and the questions were where did the ROW actually sit relative to the properties and living within that envelope obviously has its advantages. The other one which I think you mentioned there are some topographical and geographic features at different parts of the road where it kind of drops off which makes widening the road burdensome. I will only note that when we talked with the Agency of Transportation, I am going to exert, that the State Agency of Transportation would have deeper pockets than the Town of Richmond, they were not inclined to deal with the widening of Route 2 between the Village and the Park and Ride because of the cost of extending fill to widen the shoulders. And so that leads me to conclude that widen shoulders on the steep slopes is a particularly financially burdensome endeavor.
- Erik Maki (WSP) Right so I would agree. As we continue to look into this, we will probably end up developing an alternative that is more of a hybrid where it might have to have a certain section of on-street use and then once we are past those constraints we can open it back up to these gravel or paved shoulders in areas that are a little more financially feasible and feasible from an engineering standpoint. So I think as we do our assessment and go down the corridor we are certainly going to outline those concerns and that will be part of the discussion of the alternatives we develop.
- Bard Hill (Selectboard/Advisory Committee Member) That is great. I think that characterizes this as
 you presented it. This is really preliminary, conceptual and as you get further down the road as it
 were certain options will tend to remove themselves from consideration due to practical or financial
 terms.
- Erik Maki (WSP) Right.
- Bard Hill (Selectboard/Advisory Committee Member) Ultimately, we will end up with a smaller set of options.
- Erik Maki (WSP) Correct. And example is a segment where there is guardrail on both sides with slope that goes up probably near Cochran Ski Area and then a downslope on the other side and you are constrained for hundreds of feet with that guardrail and that is not going to change.
- Bard Hill (Selectboard/Advisory Committee Member) The other things is with state and federal
 money. I think the budget for some of these items are going to be daunting, but we will want to see
 at least broad estimates pretty early to know what seems feasible or desirable and what does not.
- Erik Maki (WSP) Right Absolutely. We will keep that in mind as we work on these different
 examples and alternatives with you and outline these constraints and impacts. That is really the

point of this study to outline these items that will cost money that we know might be a showstopper.

- Jay Furr (Selectboard/Advisory Committee Member) There are a lot of pieces to the puzzle here. The thing I like best is the proposed multiuse trail along the length of Cochran Road, but as Bard just said I can't imagine how that could be constructed given the State's attitude toward widening shoulders and using fill to make the roadway wider. But, giving people, horse riders, runners, rollerbladers, walkers, a safe place to travel is pretty much my highest priority there. The multi-use trail that goes over by the river has been used by a lot of people on foot, but it can get muddy and murky, and can get very uneven. It also has the drawback of not being in the public view as much and I know that there are some women that will not use it because they do not feel safe there. So all this comes up to there being some pretty high hurdles that we are going to have to get over somehow, but I am very grateful of all your work and I am hoping that as this goes forward we can built a foundation under some of these ideas.
- Erik Maki (WSP) Yes, exactly. I do get the feeling that we will end up with some sort of hybrid concepts just because of some of the constraints. I was just out there Saturday walking and driving around. I notice more things each time I am out there the drainage swales, the ditches, you can see the impacts from the flooding. It looked very muddy and wet down there as an example along that section near the river. Naturally people probably walk there easier than they can bike just because of the condition of the terrain because I was surprised at how high the drop offs were in some places too. It was more than I expected.
- Lisa Miller (Selectboard/Advisory Committee Member) Erik I have a question for you. There is a group that you will probably want to talk to that will for sure want to talk to you towards the east end of Cochran Road there is an annual migration across the road of things that hatch on the southern side of the road and cross (Salamanders). The group is called Saber Salamanders and I don't know if there are any kind of features you can provide that would ease that crossing. It is a pretty tough go for the critters as they all get crushed by the cars that travel back and forth as they are a lot bigger. They would be glad for an input or low cost design features that would add to help or facilitate this safe migration.
- Erik Maki (WSP) No, that is great. I have worked on some railroad projects where they have a
 method of creating a big Y type fence that sort of corrals them into a drainage pipe under the road.
 It also has catch basin type openings on top to allow light and air as they path beneath. There has
 been some development of devices like that.
- Lisa Miller (Selectboard/Advisory Committee Member) If you don't mind, I will tell them to get a hold of you. Would that be appropriate?
- Erik Maki (WSP) Yes, certainly through Keith or Jason as well.
- Lisa Miller (Selectboard/Advisory Committee Member) Yes, thank you.
- Jay Furr (Selectboard/Advisory Committee Member) Now that brings up an idea. We have often
 talked, and David and I were just messaging about it, the idea of a monorail and how that really is
 too expensive for Richmond's budget, but perhaps on a smaller scale a monorail could be used to
 move frogs and amphibians.
- Lisa Miller (Selectboard/Advisory Committee Member) Right, they are only this big (gestures the size of a salamander). Thank you, Erik.
- Jason Charest (CCRPC) I just wanted to clarify something earlier about crosswalks in the absence of sidewalks. That is something that VTrans would allow for in their guidelines for pedestrian crossing treatments. The shoulder would just need to be of an adequate width. So if we had a sufficient

enough shoulder (I believe 3 feet might be the minimum, don't quote me on that) we could still have a crosswalk across the road.

- Bard Hill (Selectboard/Advisory Committee Member) Okay, thank you.
- Member of the Public Erik, thank you for your presentation. A couple of things I wanted to point out to make sure that we have the correct information. On the Jonesville end, Jonesville Village area, you talked about the meadow and parking spaces that are no longer being used after Covid. You talked about expanding the shoulder or graveling more of the shoulders. You need to be aware that the Selectboard has banned parking in that area on both sides of the road. So you need to get that information and have it updated in your presentation. Both sides of the roadway are banned for parking from the Jonesville bridge to the Huntington bridge on the one side and a certain section of the opposite side of the road. Just update your data. The second piece was the truck route sign. You said it was on the Richmond end. There is also one on the Jonesville end. So it is on both ends of Cochran Road. As part of the presentation that you and the CCRPC are working on, is part of this to provide potential funding opportunities or is it just design and estimation?
- Erik Maki (WSP) At this point, it is just concept development and preliminary estimates.
- Member of the Public On other projects, they have helped find funding from federal, state, or anywhere else.
- Jason Charest (CCRPC) Yes, that is something we do and is something that we help the town out with for example with Bridge Street which unfortunately did not move forward. That is something where we can point you to the various grant sources that are out there to compete for.
- Member of the Public (Kara?) Thank you so much. My final and last question, is regarding the speed humps or bumps. Are you calling them humps or bumps?
- Multiple Selectboard Members responded "tables."
- Member of the Public They are not tables. H or B. Humps or bumps?
- Erik Maki (WSP) I see them more as a hump.
- Member of the Public Okay, thank you. I want to use the correct terminology here because I work in downtown Burlington and Pine Street just got speed tables. (Someone chimed in, BIG SPEED TABLES). Yes, big speed tables and so have other towns have bigger speed tables. My question with these humps is, are your speed flowing mechanisms required to reduce below the speed limit or to reduce traffic to go the speed limit?
- Jason Charest (CCRPC) They should be to go the speed limit unless we think the speed limit is too high and should be lowered then we would revise the speed humps appropriately to yield the speed that we want on the roadway.
- Member of the Public But you legally have to reduce the speed limit to make the speed hump reduce the speed correct?
- Jason Charest (CCRPC) I am not sure I understand. Can you repeat the question?
- Member of the Public Here is my concern. The Town of Richmond has installed speed humps that
 are not engineered so I hope you are going to relook at the engineering of those because it makes
 you drop from a 25 mph zone to 13-15 mph to go over it at a reasonable speed based on the design
 of the humps. Now I appreciate our Town Highway group putting in those humps, not engineered,
 just to putting them in. But I am concerned they have not been designed properly to go 25 mph

over them. So if we are going to make the hump something that makes us have to reduce our speed to 15 mph, my question is, is that legal? Because if I drive over it at 25 mph and it causes damage to my car because I have to repeatedly go over 6 of them, then there is a liability on the Town if we don't do something to the proper standard or engineered properly. So my concern is, are you reviewing those humps to confirm they are designed and built correctly for the purpose of reducing the traffic speed to 25 mph? Because if they need to go below 25 then the Town of Richmond needs to change the speed limit.

- Jason Charest (CCRPC) There is another way around that. And it could be that, I haven't driven the speed humps in a little bit, but if you have to drive slower than 25, I would advise the Town to install advisory speed plaques. So those would be black letters on a yellow sign beneath the speed humps sign that advise motorists to go, say 15, over them. That wouldn't necessarily be the intent of a speed hump, but that does happen. The construction of those is very sensitive down to the inches so if it is just installed slightly different than what was intended it can have that sort of effect. Sometimes that does just happen.
- Member of the Public (Kara?) I think it is important that that be part of the scope. That is those
 were intended to be designed for 15 that those notices go up to warn drivers. Because if anyone is
 driving over them at 25 it is just not realistic. Thank you, I appreciate all your hard work.
- Member of the Public (Susan Wells) I can tell you that cars can go over the speed humps at 25 MPH and very often go well over 25 MPH over them.
- Jason Charest (CCRPC) Thanks Susan. We'll look into this.
- Jason Charest (CCRPC) Can I just ask a quick follow up question of the Selectboard that is serving as the Advisory Committee? There was a clarification regarding parking in the Jonesville area. It would be helpful for us, the project team, to understand if there is a desire to put parking back in that area if roadway circumstances changed or if it is a no way, no how, it doesn't matter what you do to the roadway we don't want parking there. That sort of guidance would be helpful for us.
- Bard Hill (Selectboard/Advisory Committee Member) We did amend our parking ordinance because there was no way to safely park there without the parking vehicles intruding into the ROW and visibility concerns. That being said, I would suspect if the roadway was widened such that cars could safely park there we would explore allowing it again.
- Agreement among the Selectboard.
- Jason Charest (CCRPC) Thank you that's helpful.
- Member of the Public (Tyler) Quick little thing to point out too about the parking issues down there is that the Richmond Land Trust actually owns a large part of the Meadow which is a bulk of the area there. Depending on how much you would need to expand over there, like how much fill you would need to put there, it might impact their land. I know at least as of right now there isn't much of an appetite on their end to allow more parking down there. It was a kind of a bit of an issue at least when I first got here I am not sure if that has changed or not. Just some food for thought on that.
- Bard Hill (Selectboard/Advisory Committee Member) I think that is one of the many reasons why
 accurate depiction of the ROW is really important. What are our current sort of guardrails, so to
 speak, for these types of activities?
- Member of the Public (Brendan) A few things to say here. I think the idea of having a trail like this
 is amazing and a space where people can get exercise that is multiuse is fantastic. I know we have
 talked a lot about impervious surfaces over the last couple of weeks, this sounds like a lot of

impervious surface and is counter to what my community is going through right now in terms of all of the impervious surface budget or onus to pay for that coming back down to us. I would like to speak to us speaking out of both sides of our mouth here by saying hey we are going to fund this massive impervious surface or are considering this and we are approving these pickleball courts that are more impervious surface but we are going to make this part of this Town pay exclusively for multi things of impervious surface and it feels a little two sided and I urge you all to consider that. To that end, I would like to ask and understand flooding has obviously been a huge issue we are talking about directly along the flood zone so I would like to ask what are we talking about in terms of what percentage of the land you are evaluating is in the flood zone? Are we going to be building something that is going to flood next year? And we will just have to build it again the next year?

- Erik Maki (WSP) Well part of what we do in the scoping and feasibility study is identify these
 things. Identify what is necessary for pedestrian and bicycle safety and mobility and then assess
 those impacts. From there things can be crossed off the board if they are having too many
 environmental or floodplain impacts.
- Member of the Public (Brendan) What percentage of the project is within the flood zone?
- Erik Maki (WSP) I don't know at this time, but there are flood zone maps that are available and we can bring one for the next meeting. The whole length of the roadway runs adjacent to the flood zone we know that for sure. So that is a concern. In some cases, maybe some of the alternatives that do a 3-4 foot widening to get a bit more of a shoulder area would allow a bit of biking although not as much as if you had a totally separated path, but when the roadway is only 22 foot wide that is pretty limiting. So that is the feedback we heard was that people just feel unsafe and uncomfortable. For the most part drivers move over, but just a little more sometimes does a lot. And those are all the different things we will look through.
- Jay Furr (Selectboard/Advisory Committee Member) Anymore questions or comments?
- Member of the Public Is the speed at which cars are driving being considered as one of the considerations? Is just reducing the speed limit one of the possibilities?
- Erik Maki (WSP) Well I know for example that the speed of the roadway limits the types of treatments you can use because a lot of agencies would see that is a roadway is posted at 45 mph that some of the treatments would come off the board right away as they are not appropriate for a roadway of that speed, but I think it would be nice to look at the corridor with some of the vertical and horizontal shifts of the road and limited sight lines to be able to say maybe certain segments should be 35. Maybe the one long straight away through the field area might be appropriate at 45. So that is something we can look into.
- Member of the Public So is that yes you are considering speed as something that you are going to look at in your proposal?
- Erik Maki (WSP) Yes, the speed and traffic volumes on the road and the conflicts and frictions all
 relate to certain treatments that we can or shouldn't or shall not use. So it all depends on
 engineering judgement too, but most of it depends or is related to speed and safety to the
 pedestrian environment.
- Jason Charest (CCRPC) I just want to elaborate on that to maybe get more to your question. Just simply lowering the speed limit isn't typically a successful solution to slow down drivers unless there is significant increases in enforcement. If the roadway characteristics are straight and somewhat open and visible, drivers will tend to go fast and just simply lowering the speed limit hasn't been shown to be an effective solution to that problem. So that is where Erik is talking about what else we can to the roadway to help get drivers to slow down and naturally enforce lower speeds along the roadway without the presence of police officers all the time.

• Jay Furr (Selectboard/Advisory Committee Member) - Okay, thank you, anymore comments or questions before we move on? Sounds like we are ready to move on. Thank you, Jason and Erik.

ATTENDEES

Project Team: Jason Charest (CCRPC), Erik Maki (WSP), Kevin McCarthy (WSP), Annabelle Dally (WSP), Keith Oborne (Town of Richmond, Director of Planning and Zoning), Josh Arneson (Town of Richmond, Town Manager)

Selectboard/Advisory Committee Members: Jay Furr, Bard Hill, David Sander (Chair), Adam Wood, Lisa Miller (Vice Chair)

Other/Public: See official Town Selectboard meeting minutes

ATTACHMENTS

Presentation Slides (10/7/2024) Town Selectboard official meeting agenda



MEETING NOTES

SUBJECT: Cochran Road Corridor Study – Advisory Committee Meeting #2

DATE: Monday, January 6, 2025, 7:00-9:00 PM

LOCATION: Richmond Town Center Meeting Room (203 Bridge Street, 3rd Floor) / Zoom

WSP attended the January 6, 2025, Town of Richmond Selectboard Meeting to present an update on the Cochran Road Corridor Study. The intent of the meeting was to review the study's context, goals, and Purpose and Need Statement and introduce conceptual alternatives allow the Advisory Committee and the public a chance to provide feedback on the direction of the conceptual alternatives.

Keith Oborne, Town of Richmond's Director of Planning and Zoning, and Jason Charest, Senior Transportation Planning Engineer with the CCRPC, provided a brief introduction of the study. Erik Maki, Senior Director of Traffic Engineering with WSP, presented additional study background, reviewed the study's Purpose and Need, introduced conceptual alternatives, and provided next steps. The Selectboard/Advisory Committee and members of the public provided open discussion throughout the presentation.

PRESENTATION

PROJECT CONTEXT

- Scoping Study for the two 25mph village segments; Jonesville, Richmond.
- <u>Feasibility Study</u> for the middle section; build on the recommendations and alternatives presented in the Town of Richmond Bike, Walk, and Trails Plan.
- <u>Traffic Calming</u> review the recently installed traffic calming measures and recommend supplemental devices, if needed.

PROJECT GOALS

- <u>Village segments</u> Identify new infrastructure such as sidewalks that can be incorporated
- <u>Corridor segment</u> Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- Evaluate the traffic calming measures and recommend additional solutions or devices.

LOCAL CONCERNS MEETING RECAP

LCM meeting was held on April 9, 2024. Concerns included:

- Unsafe conditions for all road users
 - o The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- Limited parking at trails and other recreation sites
- Potential flood plain issues
- Right-of-Way constraints

Village areas lack sidewalks and parking

PURPOSE AND NEED STATEMENT

Purpose

 The purpose of this project is to develop and identify a recommended alternative for Cochran Road that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

Need

Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and
alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous
recreational uses attract a variety of motorized and non-motorized users; however, residents are
concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking
at the recreational sites along the corridor.

CONCEPTUAL ALTERNATIVES

Study Area

- Richmond
- Jonesville
- Cochran Road

Richmond Village Concepts

- Area includes Cochran Road from the intersection of Bridge Street to Saint Mary's Cemetery where the Preston Forest Trail head is located
- Current condition includes a 22-foot-wide paved roadway with no shoulders or pedestrian accommodations
- Concept ideas:
 - Improve pedestrian safety and connectivity within the Village by providing sidewalks on both sides of the road to reinforce village environment
 - Sidewalks would extend from Bridge Street to the parking area at the trail head near the cemetery
 - Maintain the current speed humps and the 25 mph speed limit
 - Consider curb extensions and a crosswalk at Round Church Road
 - Typical section would include the sidewalks set back from the road to maintain a space for trees, utility poles, hydrants, roadway signs, and other elements and provide additional comfort and safety to pedestrians
 - Cochran Road is approximately 22 feet wide with a 3-rod or 49.5-foot right of way leaving approximately 13 feet available on each side
 - Proposing 5-foot sidewalks with 3-4 foot buffer zones leaving 4-5-feet to tie back into existing landscaping

Jonesville Community Concepts

- Area includes Cochran Road from Route 2 to just west of 2944 Cochran Road
- Current condition is a bit more rural that Richmond Village
- Concept ideas:
 - Improve pedestrian safety and connectivity with the community center by providing sidewalks on both sides of the road to reinforce village environment
 - Maintain the current speed humps and the 25 mph speed limit
 - Consider intersection improvements at Dugway and Wes White Hill by constraining the throat of those intersections to force vehicles to turn more slowly and thoughtfully onto Cochran Road
 - Provide additional parking near the meadow to encourage recreational use
 - Upper section of Cochran Road similar to Richmond end both sides grass strips, sidewalk, tieback
 - Bombardier Meadow area and Duxbury Street feels more constrained with houses closer

to the street. Sidewalk would not be set back but up to the edge of the roadway

Proposed small gravel shoulder as parking areas (2-3 cars) near the meadow

Cochran Road – Feasibility Study

- Looking at a feasibility study for these same types of improvements
- Speed is 45 mph, so it is a different challenge carrying under 3,000 vehicles per day
- Improve pedestrian and bicycle safety and provide a connection between Richmond Village and Jonesville
- Challenges:
 - o 45 mph speed limit
 - Roadway curves and limited sight distance
 - Steep uphill grades on Mountain Side (south side)
 - Ledge outcroppings
 - Steep downgrades on River side (north side)
 - Floodplain
- Concepts:
 - Previous considered a bike path, but not really feasible with the drop offs and required fill that would be needed and floodplain concerns
 - Paved shoulder concept which is appropriate for this type of roadway with low volume and higher speeds
 - Widen the road, add striping and a rumble strip buffer and a 4-5 foot shoulder for bicycle and pedestrians
 - More reasonable but still difficult with the ledge issues
 - The team will determine how much of this roadway would be able to accommodate the widened shoulders

NEXT STEPS

- Looking for feedback tonight before we open these conceptual ideas up to the public for further input
- Schedule:
 - Project Introduction March 26, 2024
 - o Task 1. Local Concerns Meeting April 9
 - Task 2. Village Scoping Study (Oct-Jan)
 - Public Meeting February 2025 (TBD)
 - Task 3. Traffic Calming Priorities (April)
 - Task 4. Cochran Road Corridor Study (April-May)
 - Task 5. Study Recommendations (June 2025)

PUBLIC COMMENTS/QUESTIONS

- Bard Hill (Selectboard/Advisory Committee Member) One of the things in the years that I have been around, and people have talked about, are the challenges/obstacles and the money involved. Do you have any sense of the approximate costs? Order of magnitude cost? 10 million, 20 million, 30 million? I bring this up because it is relevant as we have had concerns over much smaller projects.
- Erik Maki (WSP) I don't have a number yet, but you are right. This is a 2.5-mile corridor, if we are speaking about the middle section, with some significant grading and rock removal challenges along it. We are planning to present concepts for the full approach with paved shoulders and explore those cost implications, but we will also look into alternatives that avoid sections with ledge or limited shoulders or that uses other methods such as signage and pavement markings to address those constrained areas making them safer without the construction efforts or price tag. Some hybrid alternatives will be created because we know these improvements can be expensive and challenging to construct which is likely why no improvements have been made along this corridor to date.

- Bard Hill (Selectboard/Advisory Committee Member) I will just remind the other members of the Selectboard and those listening that we spent many years communicating with the Agency of Transportation about widening shoulders for pedestrian access between the Village and the Park and Ride which is demonstratively a much shorter distance than Cochran Road. The Agency of Transportation denied the opportunity to expand the shoulders along the state highway for pedestrian and bikes due to cost.
- Josh Arneson (Town of Richmond, Town Manager) That scale is small compared to this.
- Bard Hill (Selectboard/Advisory Committee Member) The scale was much smaller with fewer
 additional constraints in terms of proximity to buildings, houses, etc. That project was arguably
 smaller with fewer obstacles but was viewed as cost prohibitive by the Agency of Transportation. I
 don't want that to be overly daunting in forming my thinking as I look at this study and contemplate
 costs.
- Lisa Miller (Selectboard/Advisory Committee Member) This is probably the least expensive feature and something that doesn't show or I haven't seen mentioned. Each spring on the east end of Cochran Road, there is an amphibian migration across the road. You can imagine what happens when amphibians and cars mix. There is a pretty good contingent of people in Town that are really frustrated by this. This group goes out at night in the rain with flashlights to help herd these critters safely across the road. You might laugh thinking about it, but it is serious and a big problem. There is likely an easy way around it by installing some sort of passageway for these critters that is not at grade with level with cars. It is another cost, but I think you will find the people will keep bringing up this issue. I am not a big advocate for this issue, but you'll find a lot of people are and it is important for the environment to stop smashing these critters on the road. If you talk to the right people, they will present themselves and have a lot of good ideas for you. This issue does need to be addressed. Thank you.
- Erik Maki (WSP) Right, absolutely. I worked on a project in Scituate, MA for the MBTA called the Greenbush Line Extension which included an 18-mile railroad corridor surrounded by marshlands through by Scituate and Hingham. For this project tunnels were constructed for the turtle populations. There was a bit of curbing used to corral the turtles towards the drainage pipe across the railroad. Catch basin grates across the roadway surface allow light into the passageway. I will have to find out if there were any follow up studies on how successful that was. They did install a critter cam which attracted a lot of attention.
- Lisa Miller (Selectboard/Advisory Committee Member) Good. Thank you.
- Member of the Public (Cara) To stay with the whole comment about environmental impacts,
 these concepts will include major stormwater and impervious surfaces. You are talking major
 environmental impacts associated with these concepts. The amphibians are a minor environmental
 impact compared to the full length of Cochran Road. Doing these improvements for recreational
 purpose feels like it is going in the opposite direction from an environmental standpoint.

My main concern when looking at this project is cost. I know at one point Erik was replying to Bard about cost, but Bard wasn't just referring to the cost associated with the 2.5-mile section in the middle, but the cost to complete the project from the Village of Richmond to Jonesville. Is it 20 million, 30 million, what is the true cost? The cost must include the expansion of the ROW because I don't think there is enough available ROW to add 4 feet for this, 4 feet for that, and another 4 feet for something else on both sides of the road. You are going to have to purchase land from property owners. For instance, there is ledge right before the cemetery where Ron Rodjenski's or the Urbanik's house where these is a ledge outcrop and floodplain drop off across the road. My concern is we are continuing down a path studying a project that will never get passed by the voters because the Town of Richmond cannot afford a 20 or 30 million dollar project. We didn't want to spend 10 million to redo the Town Center which is an asset we already own. Again, my concern is that we are

spending a lot of time and money completing the study of Cochran Road that we can't afford. I thought this study would evaluate opportunities we could afford. I fear we are missing out on opportunities the Town of Richmond could afford now, or in the near future. I really want everyone to rethink this and stop dreaming the big like we did with the Town Center because the voters are not going to pass this kind of cost. You must have some idea what these would cost.

When Bard talked about Route 2 going to from the Village to the Park and Ride that wasn't even to build sidewalks. That project was only to expand the width of Route 2 to get additional widths for pedestrians and cyclists. Just expanding the existing paved area was too expensive for the Agency of Transportation. I appreciate that you are trying to think outside the box, but this dream is too big for Richmond, and I don't think we should spend any additional time or money on something that is going to cost over 20 million easily.

- Jay Furr (Selectboard/Advisory Committee Member) I will just opine that I don't think Cara is incorrect. The watchword in government these days is "affordability." Many people are blaming the tone-deafness of the State's democrats regarding affordability as what led to the republicans taking the most seats in the State Legislature since the turn of the century. It would be tone-deaf of us to try to put through a 20-million-dollar recommendation (if that is what it is). No, matter how much we might like the recommendation, and I don't have to tell anybody how much I would like it as I have talked about this for years, but absent of a major funding source mysteriously appearing out of thin air, that would make about as sense as the monorail we are always joking about having. I just don't see how we could afford it.
- Jason Charest (CCRPC) I would like to offer some perspective on this. I fear that people are looking this as one project as a whole. That is not the intent of this study. This study is specifically broken up into three segments. The middle segment is the most challenging and is only being evaluated as a feasibility study. This means that we are purposefully looking at this at a high level and coming up with ballpark costs estimates to that you can then make the decision that this is way too much money and not something the Town could ever afford. The other two sections of Richmond Village and Jonesville are much smaller segments. These are being evaluated at a scoping level in greater detail so we will have a better handle on the constraints and on the opportunities available to construct something like sidewalks and offer those cost estimates. None of these have to be built all at once. You might decide you want to build something in the Village, but nothing in Jonesville. That could be a good move with a much smaller price tag. Please don't think of this as one thing that has to move together all at once. That is not the case.
- Jay Furr (Selectboard/Advisory Committee Member) Thank you for that. That is a valid point. I would agree, the improvement suggested near the Round Church and Saint Mary's Cemetery are a bit more realistic of a project than doing the whole length of Cochran Road.
- Lisa Miller (Selectboard/Advisory Committee Member) If we have some ideas that are fleshed out to some degree, I would hate to see them lost. It shouldn't cost very much to document the things you just talked about in a pencil figure on the side with an order of magnitude cost. I think it would be a shame to lose all the thought that has gone into it just because we aren't going to build it all at one time. So can we do that? Can we have a planning document produced from this that we can phase as we see fit in the future or does it have to be start to finish or nothing?
- Jason Charest (CCRPC) No, it can be a document that has everything broken apart in terms of cost
 wise and we can offer, with the help of yourselves, we could offer a phasing plan or we could just
 leave it as is with different cost estimates for different pieces and you could all decide at some later
 date what you would like to move forward with depending on what's the most pressing thing you
 want to move forward with at that time.
- Lisa Miller (Selectboard/Advisory Committee Member) Okay.

- Jason Charest (CCRPC) I also want to make a mention about ROW since that came up. That is something that WSP will be looking at and we will have an idea of ROW impacts. I don't think it is our intent to be expanding outside of the roadway's ROW. Erik, can you confirm?
- Erik Maki (WSP) No, not at all. We know that would be cost prohibitive at that point. The costs associated with property takings along a 2.5-mile section of road would knock the project out completely. Our thought was to start off with a top-level wish of what the best thing we could do along the corridor and from there recognize and develop alternatives that are much less costly. That is what I was referring to with a hybrid option where we come up with countermeasures for areas or sections where we can't construct any of these paths or paved sections due to constraints such as guardrail and drop offs to the river. We are going to end up with something in the end where we'll see how much of the roadway we could implement these improvements, maybe only 60-70%, and determine if it is worth it as a project to make those enhancements or not. That is part of the process that we will document as we make these alternatives.
- Bard Hill (Selectboard/Advisory Committee Member) I really like that idea. When I was looking at
 the figures near the Round Church end, we could contemplate sidewalk on one side of the road
 opposed to both. Throughout Richmond you will see plenty of locations where the sidewalk in on
 one side, but not the other. While this is not ideal, it is more affordable and feasible. I think having
 costs for different elements would be useful as it becomes a menu where we might choose to do
 certain things based on perceived cost benefits.
- Jay Furr (Selectboard/Advisory Committee Member) And when funding sources may become available.
- Member of the Public (Cara) I just want to bring to your attention the fact that had a lot of public comment on the intersections of Cochran Road at Huntington, Bridge Street, and Thomason Road, and that is where sidewalks are to be put on Cochran Road? You already had input there. If you put a sidewalk on the Round Church side, you are connecting to maybe two houses (David Prince's and his neighbors') so that sidewalk goes to nowhere. If you put a sidewalk along the other side of the road, it will likely have to end near Tinker's or the Urbanik's property due to the ledge outcrop, you are connecting maybe 4-5 hours. Bikes won't ride on the sidewalk, so it is only a pedestrian connection for people along Cochran Road. I don't think the cost will justify the benefit. There are only connections within the Town that would encourage more pedestrian traffic and is off of the road that has vehicles without curbing, etc. I think voters will speak out against this and will not be in favor of speaking all this money for sidewalks to 5 or 6 homes.

Who is paying for this if we go forward with getting price breakdowns for a grocery list of alternatives? How much will this cost? Are we 100% under a grant for this?

- Jason Charest (CCRPC) For this study? Or for future improvements?
- Member of the Public (Cara) For this study.
- Jason Charest (CCRPC) This study is 20% paid for by the Town and the rest of paid for by the CCRPC.
- Member of the Public (Cara) Do we have to pay another 20% if we continue further down the road with the study? Have we prepaid at all or are we looking to have something completed that we already paid for? Or do you have to get approval from the Selectboard to spend more money to continue this study?
- Jason Charest (CCRPC) We have a budget that was agreed upon by all parties involved and as the consultant makes headway on that project they are reimbursed for hours they have worked on it.

- Member of the Public (Cara) Okay, what percentage have we used of that contract?
- Jason Charest (CCRPC) We would have to look into the contract, I don't have that off the top of my head.
- Member of the Public (Cara) Thank you.
- Jason Charest (CCRPC) I also want to state for the record for anyone who's unaware, the whole reason we are doing this is because we got a request from the Town to do this work.
- Member of the Public (Cara) Yes, thank you. I appreciate the work you have done. I am just asking
 the selectboard to rethink their thought process here. Not anything to do with your work. You were
 hired to do this work, thank you, I appreciate that.
- Jason Charest (CCRPC) Understood, I just want to seize the opportunity to let everyone know
 where this is coming from so that there is no confusion. Every year the CCRPC has a work program
 that we solicit ideas from the towns for. We do work in all municipalities in the county, and this was
 a request that came from the town and it was approved for inclusion in our budget and again it is
 80% funded by the CCRPC and 20% funded by the town.
- Jay Furr (Selectboard/Advisory Committee Member) Thank you, Jason. Any other questions? Any
 final thoughts before we move on. Okay, well thank you for presenting that certainly is a lot of
 information to go through.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Did you want to set a public hearing as the next steps for this project?
- Member of the Selectboard Is there a tentative date?
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Erik, do you have an intended timeframe?
- Erik Maki (WSP) We were thinking sometime in February or March depending on what kind of
 feedback we received this evening, the Town's meeting schedule, and the time we need to provide
 proper notification. We also want to be cognizant of any school vacations.
- Josh Arneson (Town of Richmond, Town Manager) Do you envision that within a Selectboard meeting, or would it need to be a standalone meeting? How long do we think it would take? A half-hour update or an hour or more?
- Lisa Miller (Selectboard/Advisory Committee Member) Will costs be presented?
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Yes, rough costs at that point.
- Josh Arneson (Town of Richmond, Town Manager) Would we have rough costs by then? Or do you need more public feedback before you get to those costs?
- Erik Maki (WSP) No, I think we could develop rough costs. As we discussed it would be more a menu of options. We could try to isolate options like one side of the road vs both sides so we can add up the costs however we can and present it as a full project, but also show it in sections. I think that would be the proper way to do it.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Almost like à la carte.
- Josh Arneson (Town of Richmond, Town Manager) Do we want to pick a day that is not a

selectboard day?

- Lisa Miller (Selectboard/Advisory Committee Member) I get sense we don't have anything defined yet, so it is hard to proceed. So, we need to do that.
- Josh Arneson (Town of Richmond, Town Manager) That is what the study team are going to work on and then come back to the public at this hearing for additional feedback.
- The Selectboard discusses potential dates. February 10 is suggested. Town Meeting Day is suggested. Jason Charest clarifying this meeting is intended to be a standalone meeting and not take place as a part of a Selectboard meeting. Selectboard considers other dates. The Selectboard asks if there is a statutory requirement for warning this meeting. Jason Charest confirms there is not, but the meeting should be advertised at least two weeks prior. The Selectboard decides February 10 at 7 p.m. for the public meeting
- (Selectboard/Advisory Committee Member) One other comment, a reminder to people that the issues along Cochran Road have come up intermittently over the last 20 to 30 years. Comments including, "someone needs to do something, let's come up with a solution, and what would these solutions cost." This current work is a result of decades of people requesting solutions to the issues along Cochran Road. This is the first organized step to addressing these comments. This will get us to the next phase with rough back of the envelope costs so we can see if there is anything we can do based on the return of investment. I am daunted from the beginning due to our experience with Route 2 and the Agency of Transportation not incorporating similar improvements along Route 2 as part of a much larger project.
- (Selectboard/Advisory Committee Member) This is a good point. It was part of an existing project and was still too insurmountable from a cost perspective.
- (Selectboard/Advisory Committee Member) That project was also within the ROW and was only
 dealing with slopes and moving the old retaining wall which couldn't have been too expensive in the
 grand scheme of things.
- (Selectboard/Advisory Committee Member) This was all after the State came along and said we are rebuilding this road what would you like us to do to it.
- (Selectboard/Advisory Committee Member) I am daunted by the potential cost, but I predict that without having some sort of organized approach to it we will still face these questions intermittently into the future. Why aren't we do something? What could we do? What will it cost?
- Lisa Miller (Selectboard/Advisory Committee Member) Every time we look is step one. So, let's get passed step one.
- Member of the Public (Kevin) I just would like to say that I do agree with Cara that right now the appetite for this community to accept increases in taxes for anything is poor. I think having additional meetings on this is only going to be bringing up we can't afford to spend more tax dollars to make improvements here so why are we going through this whole process. You are just having people meeting, spend time, and discuss things that are not going to go anywhere.
- Jay Furr (Selectboard/Advisory Committee Member) Thank you, Kevin. Any further comments before we move on? Okay.

ATTFNDFFS

Project Team: Jason Charest (CCRPC), Erik Maki (WSP), Annabelle Dally (WSP), Keith Oborne (Town of Richmond, Director of Planning and Zoning), Josh Arneson (Town of Richmond, Town Manager)

Selectboard/Advisory Committee Members: Jay Furr, Bard Hill, David Sander (Chair), Adam Wood, Lisa Miller (Vice Chair)

Other/Public: See official Town Selectboard meeting minutes

ATTACHMENTS

Presentation Slides (1/6/2025) Town Selectboard official meeting agenda



MEETING NOTES

SUBJECT: Cochran Road Corridor Study – Draft Alternatives Meeting

DATE: Monday, February 10, 2025, 7:00-9:00 PM

LOCATION: Richmond Town Center Meeting Room (203 Bridge Street, 3rd Floor) / Zoom

WSP attended the February 10, 2025, Town of Richmond Special Meeting of the Selectboard Meeting to present the draft alternatives for the Cochran Road Corridor Study. The intent of the meeting was to gather public input on an array of potential treatments and strategies to help inform the Study Team's recommendation of a preferred solution for further refinement.

Keith Oborne, Town of Richmond's Director of Planning and Zoning, provided a brief introduction of the study. Erik Maki, Senior Director of Traffic Engineering with WSP, presented additional study background, reviewed the study's Purpose and Need, presented improvement options and the challenges associated with each and the cost methodology and resulting preliminary estimated cost, and provided next steps. The Selectboard/Advisory Committee and members of the public provided open discussion throughout the presentation. The meeting was called to order at 7:03 PM.

PRESENTATION

PROJECT CONTEXT

- Scoping Study for the two 25mph village segments; Jonesville, Richmond.
- <u>Feasibility Study</u> for the middle section; build on the recommendations and alternatives presented in the Town of Richmond Bike, Walk, and Trails Plan.
- <u>Traffic Calming</u> review the recently installed traffic calming measures and recommend supplemental devices, if needed.

PROJECT GOALS

- <u>Village segments</u> Identify new infrastructure such as sidewalks that can be incorporated
- <u>Corridor segment</u> Identify specific on-road and off-road improvements and multi-modal strategies that address safety, capacity and connectivity for pedestrians and cyclists
- Evaluate the traffic calming measures and recommend additional solutions or devices.

LOCAL CONCERNS MEETING RECAP

LCM meeting was held on April 9, 2024. Concerns included:

- Unsafe conditions for all road users
 - The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- Limited parking at trails and other recreation sites
- Potential flood plain issues

- Right-of-Way constraints
- Village areas lack sidewalks and parking

PURPOSE AND NEED STATEMENT

Purpose

• The purpose of this project is to develop and identify a recommended alternative for Cochran Road that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

Need

Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and
alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous
recreational uses attract a variety of motorized and non-motorized users; however, residents are
concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking
at the recreational sites along the corridor.

CONCEPTUAL ALTERNATIVES

Study Area

- Richmond
- Jonesville
- Cochran Road

Richmond Village Concepts

- Area includes Cochran Road from the intersection of Bridge Street to Saint Mary's Cemetery where the Preston Forest Trail head is located
- Current condition includes a 22-foot-wide paved roadway with no shoulders or pedestrian accommodations
- Concept ideas:
 - Improve pedestrian safety and connectivity within the Village by providing sidewalks on both sides of the road to reinforce village environment
 - Sidewalks would extend from Bridge Street to the parking area at the trail head near the cemetery
 - Maintain the current speed humps and the 25 mph speed limit
 - Consider curb extensions and a crosswalk at Round Church Road
 - Typical section would include the sidewalks set back from the road to maintain a space for trees, utility poles, hydrants, roadway signs, and other elements and provide additional comfort and safety to pedestrians
 - Cochran Road is approximately 22 feet wide with a 3-rod or 49.5-foot right of way leaving approximately 13 feet available on each side
 - Proposing 5-foot sidewalks with 3-4 foot buffer zones leaving 4-5-feet to tie back into existing landscaping
- Improvement Options:
 - Sidewalk with granite curb on north side from Bridge St to trail and cemetery parking
 - Sidewalk with granite curb on south side shorter due to ledge
 - Signs and markings for safety
- Potential Impacts:
 - Utility poles, grading, drainage, ledge, rock, trees
- Challenges:
 - Widening for a sidewalk or separate path on the south side would be costly due to ledge/rock outcroppings
 - Potential utility pole relocations
- Cost Methodology:
 - Based on costs reflected in 2020 Report on Shared-Use Path and Sidewalk Costs.
- Preliminary Estimated Cost:
 - o North Side \$745,000

- o South Side \$225,000
- Signs and Markings \$10,000
- Total with other work (ledge, utility relocation), grading and drainage, and design, engineering, and survey - \$1.28 million. No price escalation included in the preliminary costs.

Jonesville Community Concepts

- Area includes Cochran Road from Route 2 to just west of 2944 Cochran Road
- Current condition is a bit more rural that Richmond Village
- Concept ideas:
 - Improve pedestrian safety and connectivity with the community center by providing sidewalks on both sides of the road to reinforce village environment
 - Maintain the current speed humps and the 25 mph speed limit
 - Consider intersection improvements at Dugway and Wes White Hill by reducing the width/corner radii of those intersections to force vehicles to turn more slowly and thoughtfully onto Cochran Road
 - Provide some parking near the meadow to allow for river access
 - Upper section of Cochran Road is similar to Richmond Village end; both sides grass strips, sidewalk, tieback
 - Bombardier Meadow area and Duxbury Street feels more constrained with houses closer to the street. Sidewalk would not be set back but up to the edge of the roadway
 - Proposed small gravel shoulder as parking areas (2-3 cars) near the meadow
- Improvement Options:
 - Sidewalk with granite curb on north side from 2944 Cochran Road to Huntington River bridge
 - o Sidewalk with granite curb on south side from 2944 Cochran Road to Winooski River bridge
 - Signs and markings for safety
- Potential Impacts:
 - Utility poles, grading, drainage, ledge, rock, trees
- Preliminary Estimated Cost:
 - North Side \$475,500
 - South Side \$555,000
 - Signs and Markings \$10,000
 - Gravel parking spaces \$6,000
 - Total with other work (utility relocation), grading and drainage, and design, engineering, and survey - \$1.30 million. No price escalation included in the preliminary costs.

Cochran Road – Feasibility Study

- Looking at a feasibility study for these same types of improvements
- Speed is 45 mph, so it is a different challenge carrying 2,700 vehicles per day
- Improve pedestrian and bicycle safety and provide a connection between Richmond Village and Jonesville
- Challenges:
 - o 45 mph speed limit
 - o Roadway curves and limited sight distance
 - Steep uphill grades on Mountain Side (south side)
 - Ledge outcroppings
 - Steep downgrades on River side (north side)
 - Floodplain
- Concepts:
 - Previous considered a bike path, but not really feasible with the drop offs and required fill that would be needed and floodplain concerns
 - Paved shoulder concept which is appropriate for this type of roadway with low volume and higher speeds
 - o Widen the road, add striping and a rumble strip buffer and a 4-5 foot shoulder for bicycle

and pedestrians

- More reasonable but still difficult with the ledge issues
- The team will determine how much of this roadway would be able to reasonably accommodate the widened shoulders
- Challenges:
 - Steep uphill grades on mountain side (south side)
 - o 45 mph speed limit
 - Roadway curves and limited sight distance
 - Ledge outcroppings
 - Steep downgrades on river side (north side)
 - Floodplain concerns
- Improvement Options:
 - o Paved shoulder concept
 - Expands current ~22 feet
 - Adds 6 foot paved shoulder to each side
 - Improves pedestrian and bicycle safety
 - Warning & advisory signs and markings
- Preliminary Estimated Cost:
 - North Side \$510,000
 - o South Side \$1,275,000
 - Signs and Markings \$95,800
 - Gravel parking spaces \$24,000
 - Total with other work (ledge, utility relocation), grading and drainage, and design, engineering, and survey - \$2.47 million. No price escalation included in the preliminary costs.

NEXT STEPS

- Looking for feedback tonight before we open these conceptual ideas up to the public for further input
- Schedule:
 - Project Introduction March 26, 2024
 - o Task 1. Local Concerns Meeting April 9
 - Task 2. Village Scoping Study (Oct-Jan)
 - Public Meeting February 2025 (this meeting)
 - o Task 3. Traffic Calming Priorities (April)
 - Task 4. Cochran Road Corridor Study (April-May)
 - o Task 5. Study Recommendations (June 2025)

PUBLIC COMMENTS/QUESTIONS

- Jay Furr, Bard Hill, David Sander (Chair), Adam Wood, Lisa Miller (Vice Chair)
- Selectboard Member (Bard Hill) This shapes things in a useful way and I really like the modular or breakout elements that allow you to look at specific costs. I thought I'd start by setting context on the town's budget as it is often hard for people who don't live in a small town or even some people from our town to understand. For context, people know what our next year's proposed budget for the Town of Richmond is more or less \$4.9 million rounding up. I wanted to share that context because in a town like Burlington, South Burlington, or Winooski a million here or a million there is a modest change to their budget. I am saying this partly because of the fact that if we did all these suggestions it would be in excess of the current costs of our total town budget which is a little daunting to me personally. Unlike these other towns, we don't have the resources as South Burlington for example has taken on a stormwater initiative and has dedicated 6 or 7 staff to this initiative only, but we don't have that luxury partly because of our grand list value tax rates. When I was collecting signatures to petition to run for Selectboard again, the

single issue that was brought up the most by voters was how I would prevent taxes from going up so I am wrestling with this just in the context of cost. That said, I am interested if people think there are elements that they might gravitate towards and think represent a good investment with good return realizing we are not going to wake tomorrow and spend \$6 million.

- Selectboard Member (Lisa Miller) Cochran Road keeps coming up. It is a great road to go fast on because you can see. It is a great path for bicycles, we know that because bike racers want to use it and rent it. It is a great path for pedestrians because it is about the only path to go east and west from one end to the other or even in between. I have to question what we really want to do here. Do we really want to keep mixing vehicles and pedestrians and bicycles? That is what we are doing here. We are just making it easier to mix them. We aren't really getting the pedestrians and bicycles off the road, we are just giving them a bit better of a place to walk, maybe more visibility, but I don't see that we have really solved anything.
- Selectboard Member (Jay Furr) I hear what you are saying, can we really mix automobiles and these other uses. The people who live in the areas at either end of Cochran Road, the people near the Round Church and the cemetery end and the people in Jonesville don't even feel safe going out of their houses to check their mailboxes because speeds are so excessive. The speed bumps have helped, somewhat, but I don't regard being able to walk on the shoulder in that area to be a luxury. We clearly cannot afford all of the measures that are outlined here. Sidewalks turns out are not cheap, but widened shoulders, paved shoulders a good case could be made for them, but as Bard said there is that little problem of not having an idea of how to pay for it.
- Selectboard Member (Lisa Miller) The things that give me pause is the ledge that is
 expensive. There is right-of-way acquisition I am sure we would need somewhere though I
 am not sure where. Are there any areas you have identified where we need to acquire
 more right-of-way to do any of this or do we have sufficient right-of-way from end to end?
- Erik Maki (WSP) responded we haven't determined that yet. We have about 13 feet plus or minus that should be available. Surveys have stated that generally the roadway should be built in the middle of the layout, but we won't know definitively without a survey. Generally, that leaves 13 feet to work with on either side. Widening that paved shoulder six feet out would still leave six or seven feet to grade down to a property line so it is feasible, but I can't say definitively at this point. We are not expecting any right-of-way takings if that helps.
- Selectboard Member (Lisa Miller) Yes, that is good thank you. I am thinking we have the opportunity here to take the bicycles and pedestrians, the through pedestrians not the door to door, out of the mix with the road with a path.
- Selectboard Member (Jay Furr) There isn't enough room for a path. If you think back to
 what he talked about earlier for example the very steep drop off there on the north side of
 the road near the round church end, there is not place there to put a path.
- Selectboard Member (Lisa Miller) If we want people and bikes to go east and west, they don't have to cross that hill necessarily starting in the Village and going to Jonesville and vice versa. Why not something through the property that is along the river? I know this is not stuff that is river resistant, but we can get from one end to the other without spending \$5 million a whole lot less actually if we just want a walking and bicycling path. I would like for that to be in the background as we are thinking this through. I think we're looking at one option and there really should be more or none.

- Jean Haskins commented in the chat "Make a river walk path along the river"
- Selectboard Member (Jay Furr) Hydrologically is that even possible?
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) This will have to go
 into design at some point and that is when you would figure it out.
- Selectboard Member It seems like based on our previous conversations about having to
 maintain and repair annually a paved path in Volunteers Green which every time we do
 that the same path along the river would flood. I am not comfortable talking out of both
 sides of my mouth saying that it doesn't make sense in Volunteers Green, but is does make
 sense in this case.
- Selectboard Member (Lisa Miller) Agreed that we do have the same problem here.
- Selectboard Member Is that lower-hanging fruit to grab? My recollection was that there
 wasn't enough width along the corridor to put it in there and there were issues with
 flooding and erosion, but I might be wrong on that.
- Selectboard Member (Lisa Miller) There are some land use issues as well.
- Selectboard Member (Jay Furr?) Well there is a walking path along the river, but it doesn't go the whole way partly because there's private property so there are a couple of issues one of which is land acquisition of private property that if you wanted to put it along the river. Having been down there it is somewhat dynamic, as the river goes up and down the silt moves around and the gravel bars and shoreline has moved over the last 30 years I have been here. It has actually changed the shoreline over the years and in a geological time it's a minute, but in the 30 years I have been here if have really changes over way the river floods.
- Selectboard Member (Lisa Miller) It has filed up and widened out.
- Selectboard Member (Jay Furr) The river is going to eat that parking lot sooner rather than later.
- Selectboard Member In the decade I have lived in town and run that path in the summer, it is on its fifth iteration of bank. It gets washed out and rerouted every flood.
- Selectboard Member (Jay Furr) So twice a year.
- Selectboard Member (Lisa Miller) This plan is a nice concept, but I think this is where it hits a wall.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) I think that is exactly what it is, a concept.
- Jean Haskins commented in the chat "put sidewalks up Wes White Hill"
- Jean Haskins commented in the chat "what about street lights"
- Selectboard Member (Bard Hill) I would just add this question for other people, if there are elements of this that you think represent a worthwhile project endeavor because there are pieces each end that could be broken off from the \$4-7 million in a more palatable way. That is really the question, are there things that people are interested in and if there were I think it would head towards a bond vote that the voters as a whole would say thumbs up or thumbs down to whatever we brought forth.
- Selectboard Member (Lisa Miller) I am glad you brought that up, I just want to add that you know each end of Cochran Road has needs and the residents know well what those

- are. For example, parking and getting people off of people's lawns over in Jonesville and out of the road. There are a lot of improvements needed and I think we are identifying them as part of the scope of work here, so thank you.
- Jason Charest (CCRPC) I am somewhat hesitant to bring this up given the state of flux with Federal funding and grant programs we are currently in, but let's just say in the past there has consistently been bicycle and pedestrian grants that VTrans has offered up to municipalities. There are also transportation alternatives program grants. Just food for thought. The Town of Huntington received a \$1.5 million grant in 2024 for a sidewalk and stormwater project. That comes with a 20% match, but I think it goes a long way into helping some of these things because more affordable to towns that may not have a large budget.
- Cara LaBounty (member of the public) Some comments on the presentation. In Jonesville it is called Bombardier Field named after a family that been known in town for generations so if you could correct, please do so. I also recommend you put page numbers of your slides so people can refer to the pages rather than just the PDF. On page 8 you have study areas of a, b, and c identified, but you don't identify them on pages 9, 17, and 23. If you could identify them by a, b, and c people can really draw the conclusion of these groupings. When you are talking about Richmond Village people get confused. On page 23, the header doesn't match the description for area C. I wasn't sure if Cochran Road was the feasibility study or just section c. On page 13, do the diagram's shown the current roadway and how the new improvement will impact the layout. I think some of those homes are close to the road and I think a green belt plus a sidewalk will be too much. In the location were you are proposing a speed hump is going to be on their porch.
- Erik Maki If I zoom in you can see the lines a little better they are outside the roadway.
- Cara LaBounty (member of the public) I think you are going to find that Cochran Road is not centered. On page 21, where the number 4 is and a gravel lot is called out, parking is banned. The Town of Richmond banned parking on that side of the road so you need to take that into account. Designing parking areas where these is no sidewalks and they have to cross the road to get to the path. I think it is very important we don't encourage that, but that is for someone else to decide. Cara continues that she is comments on cost. In you add A, B, and C together you are at \$5 million when I did my research it 25-40% increase from the const of 2020 throughout covid. I just went with 25% to be the lowest and found the costs to be closer to \$6.3 million. This does not include stormwater permits or mitigation and you are adding impervious surface. I think you are going to trigger stormwater and the mitigation costs are pricey not to mentioning engineering cost. I think the engineering costs alone will blow the budget. You also have the no easement costs and I think you are going to find you will need them in different places along the corridor. On page 24, you have flash flood washouts and has since been repaired. You are going to have to look at for flash flood warning. I am not putting there out there to stop the project just for awareness. Page 27, I am curious when you are calculating the extra four feet you need on the side of the road are you sure there is actually four feet there. I don't think that is case.
- Erik Maki (WSP) It is an approximation at this point. We went up and down the roadway to get an idea of the layout, but you would need a full survey to know definitively.
- Cara LaBounty (member of the public) A cost of the survey would be expense especially
 along the entire corridor. Which brings me back to the last meeting that had, and I actually
 had people come to my house to talk about this with me and ask how you can fill the flood

plan when the Town of Richmond's has a no net fill policy. We have stronger regulations than the federal government. Unless the Town of Richmond is going to wave their own regulations, but that is a decision of the Selectboard and planning commission. In the previous meeting, I said my estimate was 10-20 million minimal on this project with all the things that aren't included, I am really surprised we don't have escalation pricing in these costs at all, so I am concerned that this is presenting lower cost than it is. I think the numbers presented as missing some very big factors. I have three questions. I think the additional cost for grass buffers should be broken out from drainage and grading because that might come to play with your stormwater permits issue. I want to ask a question of you all as I do not know the answer what is the law regarding speed tables that allow you to travel the speed limit of 25 miles per hour versus a speed hump that requires the traveler to go a lower speed than posted.

- Jean Haskins commented in the chat "The speed humps have slowed people down"
- Erik Maki (WSP) I mean any time you put in a device for traffic calming it is meant to slow down drivers compared to the posted limit. That is the point of the device. If you drive over it at 25 or 30 miles per hour it wouldn't be doing what it was intended to do.
- Cara LaBounty (member of the public) The devices were intended to make people actually go the speed limit because we were having a problem with not being able to enforce the speed limit and people were going above it so the purpose is to have them travel the speed limit. Burlington on Pine Street put speed tables in on Pine Street you that you can travel that speed limit over with these you almost have to stop to drive over it. I just want to know the actual VTrans or State of Vermont regs that allow you to do that. I am just asking the specific laws that allow you to reduce the speed at which someone travels lower than the posted limits.
- Jason Charest (CCRPC) I am not sure there are specific laws on traffic calming devices per se, but if a traffic calming device is installed that require somebody to go below the speed limit my advice would be to put up advisory speed plaque for something like 15 mph. These traffic devices are very delicate when you install them, inches can matter quite a bit in terms of the feel and speed that a car can go over them. Burlington has improved quite a bit over the years on how they install their traffic calming devices and they have been doing them for about 20-25 years so they have a lot of internal experience when it comes to installing these. If the traffic calming devices on Cochran Road require you to slow down significantly below the speed limit that posted there, my advice would be to put up advisory speed plaques.
- Cara LaBounty (member of the public) I see on page 19 you are adding another speed hump in the Jonesville area. Are you adding any other speed humps?
- Erik Maki (WSP) That was not the intent. That was intended to capture the existing ones not to add new.
- Cara LaBounty (member of the public) There is one added to the Jonesville section.
- Erik Maki (WSP) that is a speed feedback sign not a speed hump.
- Cara LaBounty (member of the public) There are not two speed humps there. The one on the bottom section near Hapgood Lane is not there.
- Selectboard Member (Lisa Miller) Mister Chairmen if I could interrupt. I think we are analyzing a hypothetical which isn't really going to lead us anywhere.

- Cara LaBounty (member of the public) I am just giving them some corrections on the presentation.
- Selectboard Member (Lisa Miller) The questions may be legitimate, but it is getting long.
- Cara LaBounty (member of the public) My last question, is how much is Richmond contracted to pay for this scoping study? How much have we spent, how much more do we have to spend on this scoping study? What is the total budget?
- Jason Charest (CCRPC) The project is \$50,000 and Richmond would contribute a 20% match to this. We are approximately halfway through it.
- Cara LaBounty (member of the public) Okay, that is great. I appreciate the loss.
- Selectboard Member (Jay Furr) I believe from previous meetings and my own personal
 experience that the regulations that govern speed humps and speed tables and all that are
 going to found in the Manual on Uniform Traffic Control Devices which is a document
 published by the Federal Highway Administration and that virtually every state and local
 agency has agreed to use. It is online if anyone is bored enough to go through it.
- Jason Charest (CCRPC) The manual on uniform traffic control devices would not cover traffic calming devices specifically.
- Selectboard Member Jay Furr posted the link to the MUTCD in the chat: https://mutcd.fhwa.dot.gov/htm/2009/part3/fig3b 29 longdesc.htm
- Selectboard Member (Jay Furr) They are in there I just looked at them.
- Jason Charest (CCRPC) It would cover the signs and striping surrounding them, but it wouldn't tell you where to install one or how to install it.
- Selectboard Member (Jay Furr) I just looked at it.
- Jason Charest (CCRPC) We will have to agree to disagree.
- Selectboard Member (Jay Furr) I know that before those speed bumps were installed
 Pete said they were built to confirm to the specifications in that table so I'd be surprised if
 they are not there.
- Susan Wells (member of the public) I would like to say that I travel over these speed humps quite regularly and it is very easy to go 25 miles an hour over them. You don't have to slow down lower than that to get over them safely. You can, if you want, but you don't have to. I can also attest to the fact that some people don't slow down at all and go roaring over them and I haven't seen any tires or mufflers come flying off after they do it either. I would like to get us back to what we need for Cochran Road. I believe we have more pedestrians on this western end of Cochran Road than the Jonesville end as people come up from the village and they use Cochran Road to walk and jog and they park across from the Round Church Road and they park down at the park and they come up this way so having a sidewalk on one side of the road is very important because of the amount of foot traffic and bike traffic there. They come up Round Church Road from the Village and cross at our driveway at 44 [Cochran Road]. I think having those crosswalks and signage because that is a busy place. Traffic comes zooming down through the intersection at a high rate of speed and they don't have to slow down until the speed hump which is beyond our house so people crossing there have to contend with speeding cars roaring around from Bridge Street at the very high rate of speed. If there could be traffic calming between the intersection and the speed bump that would be very helpful whether you narrow the roadway or create a more innovative solution like Burlington has with chicanes or other

ways aside from speed bumps. If there could be something right near that intersection that would be great because I can tell you they go very fast. I support wider shoulders along the 45 mph portion. I know they are very expensive, but there could even be some at the blind corners that would be great. Finally I would like to say that I hope this study doesn't result in the same fate as the Bridge Street, Huntington Road, Thompson Road, Cochran Road project that was approved and then rescinded immediately and nothing was ever done despite some very low options for safety at that intersection. I hope we don't do the same thing here. This was at the top of the list of things that concerned people for the ARPA survey. Cochran Road was right at the top. With the amount of traffic on Cochran Road it warrants something even if it's a small amount or we look for grants whatever it is. Just to do nothing is just wrong.

- Martha Waterman (member of the public) I want to echo what Susan said as she said it so well. I'm a neighbor, I live a bit further down on Cochran Road by the cemetery and I have had close to identical experiences to Susan's. I share her vantage point in a lot of ways as I live pretty much across the street from the easternmost speed hump on the western side of Cochran Road. I also live across the street from the 25 mph sign with the feedback meter that tells people how fast they are going. Every single day I can see how for the most part these measures while they have made a big improvement in terms of speeding have not eradicated the issue. Jay earlier referenced anecdotal data of people he knows who are afraid to check their mailboxes on Cochran Road and I am one of those people. I am very careful and would never take one of my children with me to go and check the mail. It is a shame because we live where it's a 25 mph zone, but people drive unlawfully, distractedly, and dangerously. This presentation has been wonderful, and everything is really exciting to me. The things that are important to me as a community member and a daily user of Cochran Road are an increase in safety and the support for a movement away from single-occupancy motor vehicles and moving forward with at least some of what was contained in this presentation would really support the town moving toward a more climate-friendly future in which people can safely choose to walk and bike to get their groceries or go to the library or to work or to see their friends or go to school or the doctor. It's what we need to do and you know it's been mentioned and acknowledged that Cochran Road is a multi-use roadway. It is used by many pedestrians and cyclists every day and year round. I see cyclists on the road year round and certainly runners and walkers (I am among them). Those users are not going to go away. I think as our community grows which it inevitably will, non-motor vehicle use of Cochran Road will grow with it. We need to keep up with the times and support that in a safe way. I don't think it is an exaggeration to say that putting in sidewalks would be a life-saving measure. I think it is inevitable, and we should do it as soon as we can and from a more practical standpoint I understand that things cost money and it is not easy to come by, I think that if we are going to pick one thing to do first it would be the sidewalk on the northern end of the western end.
- Jean Haskins (member of the public) I am in favor of any crosswalk markings or things of that nature that can make it a bit safer for people to cross the road. If speeding is still the main concern, we have a police officer and now a police chief, let's get some more people out there. I drive that road every single day and I have to say I don't experience a lot of speeders out there now, but I don't know the road like the people that live there. When I am behind a car going over those speed humps they are not doing more than 25 mph, most are going 15. There are three speed humps and they all seem to be different heights because when you go over them at the same speed some bump more than others. At any rate, we put the devices in and now that the bridge on Route 2 is completed and more

- people won't be taking Cochran Road as an alternative route you are going to see less traffic. I think if we got the police out there to catch the speeders eventually they are going to stop as they will get sick of getting tickets. I know I don't have a million to spend on sidewalks and can you imagine what Dave Prince is going to say if they put a sidewalk in front of his house.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Reads in letter from John McLaughlin: Dear Richmond Selectboard, I live just off the east end of Cochran Road. I'm well aware of some people speeding on it. As a person who does a lot of biking in the Greater Richmond area, I see aggressive drivers speed on all roads. I am unable to attend tonight's meeting please read the attached for my observations of the speed humps. Please let me know if you can't read it. I would appreciate it if you could read my letter at the meeting. Thank you, John. Dear members of the Richmond Selectboard, I am writing to express my frustration with the recent installation of speed humps in town and the constant noise disturbance they have caused. While I understand the intent behind these measures is to reduce speeding and improve safety the impact on my quality of life has been overwhelming due to the excessive noise they generate. The most disruptive issue is the continuous thumping and rattling as vehicles particularly large trucks pass over the humps and their air brakes hiss loudly as drivers slow abruptly followed by the clatter of loose loads and the sounds of engines revving back up as they shift gears. Even more frustrating many vehicles, especially motorcycles and cars with performance exhausts speed up as fast as they can between the humps only to break hard at the next one. This repeated cycle of sudden acceleration and breaking creates a constant barrage of noise throughout the day and night. Additionally, I've noticed some drivers honking their horns at the humps further adding to the disruption these loud bursts of noise are especially distressing in the early morning and late evening disturbing the peace and making it difficult to relax or sleep. The tranquility I once valued in my neighborhood has been completed disrupted and it feels like my home is now situated next to a noisy chaotic roadway. I am respectfully requesting that the Selectboard take action to remove these speed humps. While I appreciate the need for traffic safety these humps are having a serious disproportionate impact on residents living near them. There has to be a better solution that does not sacrifice the peace and well-being of those in our community. Thank you for your attention to this matter. I look forward to your prompt response and hope for a solution that restores the quiet and calm that Richmond is known for, Sincerely, John McLaughlin, Richmond
- Lisa Kory (member of the public) I wanted to talk about the study more. I didn't realize this would be talking about the speed humps. I leave across from Martha on the Village side of Cochran Road. I love the speed humps. I think they have made a big difference. I don't have to slow down to go over them, but I am already going 25 mph. As far as the study, I was taking it as a study so I wasn't looking at how correct everything was and I didn't take the numbers at face value. I understand it is sort of sticker shock to look at the entire amount, but I think it is important that we don't dismiss the entire study because if we did the entire thing it would be too expensive. I think the reasons that we wanted to have the study are more valid now than they ever were and they continue to grow with the number of cars and bikes and walkers on Cochran Road which from my observations has increased. I think we need to be thinking ahead a bit; this is what a town does. If we are constantly just reacting to problems then everything is going to be more expensive, but if we can think what do we need now that will actually last for a while than that'll be a good thing. We definitely don't want to end up in a situation where someone is seriously injured or killed on the road and then it turns into a huge and horrible thing for the town

before we realize we should have done a little something. I would like to consider moving possibly slowly on this, if not faster. Naturally I know most about the part of the road that I live on which is in the Village on Town water and sewer, but we aren't really part of the Village. You are treated somewhat like we are outside of the Village in that we are on a busy road with no sidewalks. There are kids that live here and ride their bikes to school, you can imagine the anxiety of their parents. You know for kids to grow up here and be able to ride their bikes to the park and ball practice and take strollers into the park and library and to bring babies and toddlers to play, these were things I could do with my kids back in the day, but it's a lot harder now. You really have to be paying attention and always have a backup plan to jump off the road with your kid in case a driver is distracted and doesn't see you. Once you have a sidewalk which I notice every time I walk into town, you don't have to worry about that. Richmond is a more and more popular place to come from all over the place and want to live here. We need to face reality and decide; do we want to take care of community and to what extent. I could see having one of the cheaper alternatives maybe we don't need curb or maybe a cheaper material than concrete and only on one side to start in on it. That might be enough. Or it might be enough until the population grows more. The only thing about the facts in this study were the traffic volumes on Cochran Road are much higher than the numbers taken for this study. The volumes are like twice as high and they keep growing. The other thing is we have a lot of people in this town and we have these great assets in these trails like the Preston Reserve and its right in town and yet if you walk there with your kids you are taking your lives in your hands. You can almost get there, but not quite, not without using Cochran Road and being concerned about traffic. Either we consider ourselves a town with trails and facilities you can use only if you have a car or if you have a bike and you are not a kid and okay on the road. It restricts how you can even use these trails and it increases the amount of car traffic and requires more parking. It is just a matter of time before we need more parking in the Village. If you look at the Round Church people are parking along that entire road to use the trails. If they would park at a more central place or at home and safety get to the trails this would be a different thing. This will just continue to be a problem as time goes on. Start slow, but don't throw the whole thing out. This is a great study that shows what we need and what we could do. We just need to step into it.

- Jean Haskins commented in the chat "Added cost to maintain the sidewalks? Turn the green into a parking lot"
- Selectboard Member (Lisa Miller) We've got two things going on. We have the Cochran Road Study and we've got the THBC Intersection Study. I am not sure what studies we have around the Jonesville end, but there are elements in each of those studies that are common among all of them and common to what people are look for. We don't have to do any one of those projects completely, but if we divide out or separate out the common factors or the most useful factors or features and do those or concentrate on those. It's a shame we don't have a Transportation Committee right now. The Transportation Committee did a lot of good work and I don't want to see it fester or sit on a shelf. The work is good, its valid both in the past and in the future. Maybe we have the CCRPC take elements of those combine them into something that might not link pieces together now, but are doable with the money we have available to set aside each year. We can afford smaller increments and eventually get to a whole.
- Jon Cart (member of the public) Longtime user of Cochran Road for exercise and one
 time member of the Transportation Committee. I would like to reiterate the comments of
 Susan Wells and Lisa and just say that particularly every summer, there is a long line of
 people that come in here and talk about how frightened they were using Cochran Road.

Whether you have this study or a Transportation Committee, you are going to keep hearing that and for very good reason. We don't have an alternative for people to use and it is dangerous. Of course, we don't have the money to write the check to fix it all, but hopefully we could figure out maybe some pieces where you could address 25% of the problem with a smaller chunk that would do a bigger demand. The reason is to do studies like this is to have a plan in place so you are ready when the grant funding becomes available. Having the Selectboard accept this study and have some commitment to moving forward on pieces of it when funding is available would be really nice and it would dovetail well with the intersection recommendations. Again, we don't need to goldplate this, no one was ever asking for that, they were saying we need some basic safety, and you hear more of that than I do.

- Selectboard Member (Lisa Miller) Simple pieces crosswalks for example are part of the solution here. There are a lot of pieces here that are part of the solution and you're right trying to do the whole solution is a lot of parts all at once and it is expensive. We need to phase it.
- Jon Cart (member of the public) Many of the great things that have happened in Richmond that were community projects came about with someone picking up a small piece and then another small piece until they come together. So not asking to put together miracles right now, but just to take a step.
- Keith Jenning (member of the public) I am glad to see another fellow member of the former Transportation Committee here. Hearing what Lisa Miller said really inspired me to speak this evening. One of the reasons we don't have quorum on the Transportation Committee is because of the retirements of committee members after the grand intersection and sidewalk kerfuffles that then led to the meeting last year about bike and pedestrian safety improvements in Richmond Village. I haven't seen anything be done by the town in order to fix any of the issues that were brought up. I had been asked about whether I wanted to remain on the committee and see if enough people could be found to get quorum, but it doesn't seem like the town is serious about making any meaningful transportation bike pedestrian safety improvements so my hope is eventually over time maybe small pieces of these projects can come together, but that's about it for me right now.
- Cara LaBounty (member of the public) I think the Selectboard should think when phrases are used like kerfuffles. I know the Transportation Committee was upset with the community who pushed back and said we don't really want to spend this kind of money. I think that is something just like with the town center building and the community push back. Money drives everything and if this cost us nothing, we would be all for it. That is the key here, we are trying to accommodate people in our community who are on low incomes, we want affordable housing and seniors, and we want a safe community. I think we can all agree on that, but it is just at what cost because there are a lot more bikers and joggers on Hinesburg Road or Huntington Road or East Hill Road about speed 10 years ago. Speed was an issue for a lot of people so that enforcement factor. If we are going to have police in our community they should have a bigger presence. Money talks and tickets cost money and impact driver behavior. If you don't want future kerfuffles and you don't want the community being upset with undue spending is what some people believe it is then put it to a vote. Put a dollar amount out there and public it to a vote and if the community says yes then you will know you have a majority of the community behind you. But to spend \$10-20 million on Cochran Road because that is the real price tag you need to put it in front of the taxpayers. It's a five member board who tries to make the best decision and

- you just approved a \$4.9 million budget, but it's a lot of responsibility to make decision based on what the community wants and just hearing 10 people on a meeting is not a true representation of the town. Put it to a vote.
- Keith Jennings (member of the public) commented in the chat "None of the low-cost solutions from the THCB intersection discussions and the Richmond Village Bridge St. bike/ped safety meeting have been implemented"
- Susan Wells (member of the public) I just want to reiterate what Keith just said in the chat, the Transportation Committee was not upset because the town didn't want to spend a huge amount of money on the intersection. It was because there were some very low cost options that could have been discussed and that's what I said tonight that I hope this study looks at low cost options. As Lisa said and as John said, let's take a step forward as best we can and I agree with Cara, let's put some things to a vote.
- Maria B I wanted to ask what can we do or are we planning to do as a town to further inform people of this study and of the recommendations because while I love the idea of putting things to a vote ultimately I do think that's the best way to get the whole town to really be able to voice their opinions. I do find that over the last couple of years we have identified a need in the town and we need to start to do work to design ideas to solve those problems. A lot of work goes into it for those of us in the meeting. I mean of the 15-20 people that are in this meeting only 7-8 live on this end of Cochran Road so I hesitate to even give my opinion on the study itself because I feel like I am advocating for myself over the needs of the whole town. My question is how do we get those runners and bikers in this conversation now instead of later on Front Porch Forum where everyone makes up facts and shuts down what the town is trying to do for the greater good. We need to do more to get more of us involved and engaged I don't think these meetings are doing it.
- Selectboard Member That's an excellent point. You bring up a lot of real legitimate observations and concerns. I think the answer is confounding us.
- Selectboard Member (Jay Furr) I have tried not to say very much on this because in my previous years I've talked people to sleep on the subject of pedestrians. Over the last several years I have done a lot of walking on Cochran Road and a bit of biking and it is very dangerous not just for the people who live there and want to check their mail but for everybody. To go back to the study, it has given us a lot of options some of them are very pricey and some less, it's a good study. As somebody said earlier, I believe it was one of the two engineers, there are grants for some of this. Can we afford the \$15 million to do all of this, I very much doubt that, but things like having a paved shoulder on one side of Cochran Road could be worth exploring. I think we need to not lose sight of this; it is not an all or nothing thing. The Cadillac plan won't be popular with the voters, but enough people use Cochran Road that I think you could make the case that this benefits the entire town and not just the residents and this is something we need to educate are voters on and let them make their own conclusions, but discuss this in more forums and do more outreach.
- Selectboard Member (Lisa Miller) This just screams for a reincarnation of the
 Transportation Committee. Maybe we call it the piece meal project committee, I don't
 know. But what I do know that we have to make progress on this and we aren't making
 progress right now because this board is buried and it has to be done publicly. That is a lot
 of the reason these things aren't getting done is that we don't have the leadership to
 provide for them.

- Selectboard Member (Jay Furr) We had some proposals on the sidewalks and we did a
 poor job communicating them with the team and so the naysayers won the day because
 the people who might have spoken for them didn't feel well armed enough to do so. As a
 Selectboard we are here to represent all voters if at all possible, but sometimes we need to
 use the benefit of time we spent reading these things to indicate what we think may be a
 good direction and see if the town agrees with us.
- Selectboard Member (Lisa Miller) We have a bully pulpit. Essentially I agree it is for us to
 put some pieces together and see that they are logical at least and take pieces from
 studies. I think whoever said we can't do the whole thing at once is correct, but there are
 good elements and I don't want to lose them.
- Selectboard Member (Jay Furr) I want to jump back to this chat from Keith Jennings which states None of the low cost solutions from the THBC intersection discussion and the Richmond Village Bridge Street pedestrian and safety meeting have been implemented. He is right and he is absolutely right crosswalks are one of them. The fact of the matter is the flooding has taken up the Highway Department's time.
- Cara LaBounty (member of the public) commented in the chat "Is there a reason the road could not shift to one side and have one recreation path, rather than both sides?"
- Erin Farr (member of the public) commented in the chat "I'm putting the kids to bed so I can't comment, if we could make a sub-committee to explore the zillion dollar sidewalk on the west side of route 2, could we make a sub-committee to make proposals for Cochran Road, which in my opinion is a larger issue"
- Selectboard Member (Bard Hill) Both time and money being spent on flooding have consumed these resources.
- Selectboard Member (Lisa Miller) If the elements of this could be packaged and organized even more ad-hock. 100 feet of sidewalk, crosswalk, etc.
- Keith Jennings (member of the public) Just two things. It is always hard to get across a point in an internet chat, I wanted to clarify it was not intended as criticism of the town, but just that the statement was made that only multi-million dollar solution were brought forward. I wanted to illustrate that was not true and the Transportation Committee and the people who showed up brought forth many low cost solutions. If we get a summer without flooding it would be great to explore these again. I also wanted to note the Transportation Committee has provided a menu type approach for that project so there is historical precedence, and we know how that project ended up. We all need to work together to do better than we have in the past.
- Selectboard Member Community outreach seems to be the biggest stumbling block. This
 is a very specific skill set to do effectively that I don't think a lot of us have. Getting input
 and engagement before any proposal. There was a perception in the past that town was
 trying to do something ahead of time.
- Selectboard Member (Lisa Miller) This is different than a lot of what we do, but just as important and especially to the people that live in those areas where their needs are not being addressed. From my side, I haven't forgotten these things, but its loose footing we are trying to walk uphill on gravel.
- Selectboard Member It is a very complex issue. There are going to be property owners and direct stakeholders and state agencies and permits.

- Selectboard Member (Lisa Miller) We need to keep the momentum going. Maybe identify a pot of money that we would be willing to put on the table to spent and match projects up to that. It would help focus our thoughts.
- Selectboard Member (Bard Hill) We should dissuade ourselves from putting money aside for something that we will decide later one. I think the transparency and accountability part of this is to be at least somewhat clear with the voters about what it is they want to spend money on. I think the art as you suggested Adam is when do we do it and in the life cycle of project there are so many pieces so we can speak to the spending which could be less with a grant and see what people are interested in. I heard today that we should pick some of these items and we could get to a vote and maybe that is the sweet spot or confluence between elements that seem relatively high value and potentially manageable costs or more than the full thing and put it forth to the voters to see if they want to move forward with this path for the maximum price of this.
- Selectboard Member (Lisa Miller) That would be a good test of our abilities to see if we can achieve that.
- Erin Farr commented in the chat "Seeing the timeline, I think it is important that the feasibility study is done when all the mountain bike trails are open. In the spring they are often closed for mud and that drastically changes the amount of travel between Cochran Road trails and Chamberlin hill. I also mentioned timing of the travel studies for the THBC being during the school year and they did the study in the middle of the summer when there was no traffic obstacles which in my opinion is not an accurate study." [Editors Note: The intersection count used for traffic analysis at the THBC intersection as part of the Bridge Street Complete Streets Corridor Study (June 18, 2021) was conducted on May 29 and 30 of 2014 and increased by 24% to reflect a 2019 Design Hour Volume as per the procedures outlined in the VTrans Redbook.]
- Martha Waterman commented in the chat "Richmond residents have already voiced support for a walkway when surveyed for ARPA."
- Cara LaBounty (member of the public) I wanted to clarify what I was meaning before. I want to say I agree with Adam if you want to have a multi-million dollar project you should get voter approval long before you actually start to try to implement something or have the voters understand what you are talking about. I think improvements that could have been done for low costs at the intersection could have be done by a subcontractor if we can't afford to wait while our highway crew is busy. If you think we are going to deal with this every year we need to be prepared for that. I think those safety measures that were going to be put in place can be a list available to the community if you really want to educate the community and have outreach telling them we're going to do the following things at the intersection and it is going to cost the following amount, we are just waiting for the highway department to have availability or we can hire it out if it is a minimal amount of money. We have reserves for sidewalks. I just want to say I support your planning, but it's the larger scale projects that you really should get voter feedback on early on rather than a committee getting totally invested and then it not getting community support after a lot of effort has been exhausted.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Does the study team
 have enough data to formulate something? Not sure when we are going to meet again, but
 it will likely be the last one. We can wrap this up and have our suite of opportunity and
 utilize that when the time comes.

- Selectboard Member I know we have talked a lot about organizing things into smaller pieces so we can pick based on our costs and ability to pay for things. This also makes sense to organize them based on some tangible metric of where we see the most dangerous spots and how much it would cost to some way organize this based on dollars and per safety increase. I know this sounds a little abstract so I don't know how to quantify it, but that seems to be what we are really trying to do. It is not the cheapest just the most safety per dollar
- Jason Charest (CCRPC) Annabelle has been taking studious notes so we will try to make sense of that and put things in common themes and try to organize this in a way that is usable for you.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) What I am hearing is definitely low cost alternatives and quantifying and qualifying the same.
- Selectboard Member (Lisa Miller) If we can get from this study a list of things that could
 be done on their own but as an element of the overall work so they are useful in and of
 itself, but can link to something else in the future and rough costs. We can draft from it as
 funding allows and it will be easier to community with the voters.
- Erin Farr commented in the chat "the incremental approach will also help us to start by serving residents of Richmond with smaller changes example Susan crossing to her home safely and then we can expand to serve the biking rec communities that are not residents and come here specifically for recreation
- Jason Charest (CCRPC) A couple of things, any of the improvements that were looking at should be applicable to all seasons. We do have traffic data for the use of the road, anything we are looking to implement would be applicable to all traffic conditions. One question that came up a while back that I was looking for clarification or guidance, the parking in Jonesville area, the shoulder cut-offs, it was voiced that was banned. My understanding is that the Selectboard was open to keeping those options and would consider reinstating parking if an alternative presented itself.
- Selectboard Member It is my understanding that the parking ban there was created because there wasn't space to safely park there. It was a safety issue so if safe and adequate safe was provided parking could be reinstated.
- John Ranken (member of the public) There were two places in Jonesville that were listed
 one is closer to West White Hill the Selectboard prohibited parking a year or two ago
 which of course could be changed and the other is near the bridge where parking is
 currently allowed.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Jason does that answer your question.
- Jason Charest (CCRPC) Yes, it sounds like parking would be considered if it could be done safely.
- Selectboard Member (Bard Hill) The discussion at the time was people parking and opening the doors into the road and taking watercraft out, and people were milling about.
- Cara LaBounty (member of the public) What Bard said is 100% correct. In addition, building up that bank on that side of the road was going to be costly and would require filling the flood plan on that shoulder. Additionally, there were leech fields in that area in the flat portion and the Bombardiers wanted to keep people out of the leech fields.
- Meeting adjourned at 9:02 PM.

ATTENDEES

Project Team: Jason Charest (CCRPC), Erik Maki (WSP), Annabelle Dally (WSP), Keith Oborne (Town of Richmond, Director of Planning and Zoning)

Selectboard/Advisory Committee Members: Jay Furr, Bard Hill, David Sander (Chair), Adam Wood, Lisa Miller (Vice Chair)

Other/Public: See official Town Selectboard meeting minutes (link)

ATTACHMENTS

Presentation Slides (2/10/2025)

Town Selectboard official meeting agenda

Town Selectboard official meeting minutes

MMCTV Video: Recorded by MMCTV by Erin Wagg https://youtu.be/mJT51xJew4Y?si=vjwkj03XZJE c- u

Special Meeting of the Town of Richmond Selectboard

February 10, 2025

Richmond Town Center Meeting Room, 3rd Floor – 203 Bridge Street, Richmond, VT. Meeting may also be joined online or by phone

Join Zoom Meeting Online:

https://us02web.zoom.us/j/88903432017?pwd=5M51APvI6aisJoTlAgAipBnH0EuAi3.1

Join by Phone: +1 929 205 6099 **Meeting ID:** 889 0343 2017 **Passcode:** 790489

7:00 PM 1. Welcome and Public Comment

7:03 PM 2. Additions, Deletions, or Modifications to Agenda

7:05 PM 3. <u>Items for Presentation or Discussion with those present</u>

- a) Public Meeting for the Cochran Rd. Corridor and Scoping Study exploring traffic calming and bicycle & pedestrian usage on Cochran Rd. #
 - 1. Presentation from WSP Engineers on draft alternatives for Cochran Road (30 min)
 - 2. Public feedback on the study (60 min)

8:35 PM **4. Adjourn**

Time is available at each meeting for public comment. Documents related to this meeting are available at http://www.richmondvt.gov/documents/selectboard-meeting-documents/ If you would like to schedule a time with the Board or need assistance to participate in the meeting, please call Josh Arneson, Richmond Town Manager at 434-5170 or email jarneson@richmondvt.gov. Links to videos of Selectboard meetings can be found at http://mtmansfieldctv.org/*Denotes Action Item # Indicates documents in the packet

Town of Richmond Special Selectboard Meeting Public Informational Meeting Minutes of February 10, 2025 Members Present: Bard Hill, David Sander, Jay Furr, Lisa Miller, Adam Wood **Absent:** None **Staff Present:** Planning Director Keith Oborne. Others Present: MMCTV Erin Wagg, Lisa Kory, Erin Farr, Engineers from WSP Erik Maki and Annabell Dally and Jason Charest, Martha Waterman, Susan Wells, Cara LaBounty, Jean Haskin, Lisa Kory, John Kart, Maria Brown, Keith Jennings, John Rankin, Diane Mariano, Tom Butler, Trevor Brooks, Kyle M, June Heston, Veronique, Vicky LaPlant, iPhone (52), Jon, Nick **MMCTV Video:** Recorded by MMCTV by Erin Wagg https://youtu.be/mJT51xJew4Y?si=vjwkj03XZJE_c-_u Call to Order: 7:03 pm Welcome by: Sander **Public Comment:** None Additions or Deletions to Agenda: None **Items for Presentation or Discussion with those present** Presentation by Engineers from WSP from Scoping Study of Cochran Road Timestamp: 0:01 https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/01/1 Richmond Scoping Study Draft Alt Pres Notice.pdf https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/02/2 Richmond Cochran Road Scoping Study Alternatives Public Presentation 02-10-25 Final.pdf People who participated in the discussion: Oborne, Maki, Sander, Hill, Charest, LaBounty, Miller, Wood, Furr, Wells, Waterman, Haskin, Kory, Kart, Jennings, Brown, Rankin Maki gave a presentation of the power point (link above) regarding the scoping study WSP engineers have conducted on Cochran Road. Some ideas involve adding sidewalks, widening the roadway, changing signage, adding a bike path, and lowering speeds. Maki mentioned prices per foot and per mile, ranging from \$100,000 to over \$2.5 million. Hill

warned that for a Town like Richmond where the total Town Budget is \$4.3 million, this is a lot of money to spend on one road.

Miller mentioned that mixing pedestrians, bikes and automobiles isn't a good idea. Furr concurred and said that the speed humps have helped some on Cochran Road, but the cars still go too fast and it's not a safe road to walk on. Miller believes we should look at more than one option presented by WSP. Wood believes improving the walking path along the river at Volunteers Green would be a cheaper option. Hill wondered if there were portions of this study that taxpayers would be interested in pursuing. Charest mentioned there are some grants available for some of these types of improvements. LaBounty suggested some presentation improvements and she feels Stormwater issues will occur by adding impervious surfaces and that cost was not included in the cost calculations.

Wells indicated that lots of people use Cochran Road and often park near the Round

Church where she feels it's important to get better crosswalks. Waterman thinks the study shows some exciting options for improvement of safety. Haskin believes in using the Police and ticketing people for speeding rather than having speed humps. Oborne read letters from residents who were complaining about the speed humps. Kory likes the speed humps, but she thinks it's important to remember the reasons why the study was deemed important initially and that the number of cars and bikes is increasing on this road and she feels much safer once she reaches the sidewalks on Bridge Street when she walks into Town.

Miller wants the similarities of the three recent studies done in for the Town in recent years to be combined and completed as part of the solution. Kart concurs with Miller; he was previously on the Transportation Committee and says that intersections were not improved despite studies done in that case also. Jennings was also on the Transportation Committee, which isn't active and he isn't sure he wants to continue serving on that committee because of the lack of follow through. Brown does not think enough people in the Town are engaged in this conversation, because it's an expense that will have to be paid by taxpayers. Furr pointed out that the sidewalk study and intersection study was done prior to the flooding and the need to pay for flood damages superseded following through on either of those studies. Hill said time and money was depleted due to the floodings.

Miller emphasized that all three studies are important and not abandoned, and parts of this Cochran Road study could be chosen to be completed relatively cheaply. Jennings emphasized that taking the next step to move this project forward is needed. Wood stated that community input and future volunteers may be needed. Oborne asked for suggestions regarding next steps, which Wood replied should include a discussion with the Highway Department and figuring in feasibility of completing any portions of the study. Oborne pondered if an ad hoc committee needed to be created.

Charest stated they would be taking the feedback given tonight and organizing the study in a way that makes sense and any improvements they suggest should be applicable to all seasons. Oborne said he needs more input to create a Town plan. Charest wondered why parking was restricted on the eastern end of Cochran Road, to which Rankin stated that parking near Wes White Hill is not permitted, but parking is permitted near the Jonesville bridge.

Adjourn

Hill moved to adjourn. Miller seconded.

Roll Call Vote: Hill, Furr, Miller, Wood, Sander in favor. Motion approved.

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101
       Meeting adjourned at: 9:02 pm
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103
       Chat file from Zoom:
104
105
       None 00:41:18 Jean Haskin: Make a river walk path along the river
                     Jean Haskin: Put sidewalks up Wes White Hill
106
       00:41:59
       00:42:20
                     Jean Haskin: What about street lights?
107
                     Jean Haskin: The speed humps have slowed people down
108
       00:55:24
109
       01:00:56
                     Jay Furr:
              https://mutcd.fhwa.dot.gov/htm/2009/part3/fig3b 29 longdesc.htm \
110
111
       01:20:25
                     Jean Haskin: Added cost to maintain the sidewalks?
112
       01:22:45
                     Jean Haskin: Turn the green into a parking lot
       01:30:56
                                           None of the low-cost solutions from the THCB
113
                     Keith Jennings:
114
       intersection discussions and the Richmond Village Bridge St. bike/ped safety meeting
115
       have been implemented
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       01:31:26
                     Lisa Kory:
                                   Reacted to "None of the low-cost..." with
                     Cara: Reacted to "None of the low-cost..." with
117
       01:33:03
118
                     Cara: Is there a reason the road could not shift to one side and have one
       01:36:01
119
       recreation path, rather than both sides?
120
       01:38:25
                     Erin Farr:
                                    I'm putting kids to bed so I can't comment, if we could
121
       make a sub committee to explore the zillion dollar sidewalk on the west side of route 2,
122
       could we make a sub committee to make proposals for Cochran Road, which in my
       opinion is a larger issue
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124
       01:47:30
                     Erin Farr:
                                    Seeing the timeline, I think it is important that the
       feasibility study is done when all the mountain bike trails are open. In the spring they are
125
       often closed for mud and that drastically changes the amount of travel between Cochran
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       Road trails and Chamberlin hill. I also mentioned timing of the travel studies for the
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128
       TCHB being during the school year and they did the study in the middle of the summer
129
       when there was no traffic obstacles which in my opinion is not an accurate study.
130
       01:48:26
                     Martha Waterman:
                                           Richmond residents have already voiced support for
131
       a walkway when surveyed for ARPA
132
       01:54:01
                     Cara: Walkway support was not based on a $ amount, that is the missing
133
       detail.
134
       01:54:48
                     Erin Farr:
                                    The incremental approach will also help us to start by
       serving the RESIDENTS of Richmond with smaller changes, (example Susan crossing to
135
       her home safely) and then we can expand to serve the biking/rec communities that are
136
137
       NOT RESIDENTS and come here specifically for recreation
138
       01:54:49
                     Cara: I do agree, there is support. I was on the ARPA committee
139
       01:55:59
                     Cara: There are no sidewalks around Round Church green, so sidewalks
140
       to nowhere are the issue for some people.
                                    Reacted to "Seeing the timeline,..." with
141
       01:56:18
                     Erin Farr:
142
       01:57:24
                     Erin Farr:
                                    Thanks Jay also my previous comment
       01:58:29
                                    That was it thank you!
143
                     Erin Farr:
144
                     Erin Farr:
                                   That would also need to be run by the Richmond Land
       02:00:07
145
       Trust because they own the Bombardier Meadow
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MEETING NOTES

SUBJECT: Cochran Road Corridor Study – Final Recommendations Presentation

DATE: Monday, May 19, 7:00-9:00 PM

LOCATION: Richmond Town Center Meeting Room (203 Bridge Street, 3rd Floor) / Zoom

WSP attended the May 19, 2025, Town of Richmond Selectboard Meeting to present a final update on the Cochran Road Corridor Study. The intent of the meeting was to provide a brief overview of the study's context, goals, and Purpose and Need Statement, review the conceptual alternatives and updates made since the previous Advisory Committee Meeting, and share the Study Team's final recommendations. The Advisory Committee and the public were provided an opportunity to share feedback on the updates made and the final recommendations. The Advisory Committee was ultimately asked to accept the final recommendations.

Keith Oborne, Town of Richmond's Director of Planning and Zoning, provided a brief introduction of the study. Erik Maki, Senior Director of Traffic Engineering with WSP, presented additional study background, reviewed the study's Purpose and Need, shared the conceptual alternatives and changes made since the previous Advisory Committee Meeting, and provided the Study Team's Final Recommendation. Jason Charest, Senior Transportation Planning Engineer with the CCRPC, provided additional guidance and direction during the subsequent discussion. In addition, Sai Sarepalli, Senior Transportation Planning Engineer and Project Manager with the CCRPC, presented the findings and recommendations from the Cochran Road Speed Study. The Selectboard/Advisory Committee and members of the public provided open discussion throughout the presentation.

PRESENTATION

Erik Maki explained that this is the final meeting to go over the final report for this study which has been submitted. The presentation does not contain much new information, the purpose is to summarize the results of the study. Erik quickly went through a recap.

LOCAL CONCERNS MEETING RECAP

LCM meeting was held on April 9, 2024. Concerns included:

- Unsafe conditions for all road users
 - o The road is narrow and has no shoulders, sidewalks
 - Cars speed and there is limited sight distance
- Limited parking at trails and other recreation sites
- Potential flood plain issues
- Right-of-Way constraints
- Village areas lack sidewalks and parking

PURPOSE AND NEED STATEMENT

Purpose

• The purpose of this project is to develop and identify a recommended alternative for Cochran Road

that improves safety, comfort, and mobility for non-motorized users along the corridor and to expand access to recreational sites.

Need

Cochran Road is considered deficient based on the narrow roadway width, vehicle speeds, and
alignment. The roadway has two travel lanes with no shoulders or sidewalks. The numerous
recreational uses attract a variety of motorized and non-motorized users; however, residents are
concerned about high traffic speeds, lack of space for pedestrians and cyclists, and limited parking
at the recreational sites along the corridor.

STUDY AREA

- Richmond Village
- Jonesville Community
- Cochran Road corridor (~2.5 miles)

CONCEPTUAL ALTERNATIVES

Richmond Village Concepts

- Area includes Cochran Road from the THBC intersection east to Saint Mary's Cemetery where the parking is located
- Improvement Options:
 - Improve pedestrian safety by adding a sidewalk along both sides of the street, set back with a grass strip
 - Could consider adding some crosswalk markings near the Round Church roadway
 - Maintain all the existing speed humps and signage throughout this area
- Constraints:
 - o Ledge and rock outcroppings, utility poles, drop off towards river, and floodplain issues
- Recommendation:
 - o A suite of options from sidewalks to signage and pavement markings
 - Costs developed using the 2020 VTrans Bicycle and Pedestrian Program Unit Cost Report and modified based on feedback from the previous meeting to include a 26.5% escalation
 - Estimated cost of \$1.62 million

Jonesville Community Concepts

- Area includes Cochran Road from 2944 Cochran Road to Route 2
- Improvement Options:
 - o Improve pedestrian safety by adding a sidewalk along both sides of the street, set back with a grass strip from 2944 Cochran Road to the river and a sidewalk on one side without a grass strip due to constraints the remaining distance
 - Gravel parking is also recommended in key locations near the bridge over the Winooski River and near the meadow
- Recommendation:
 - A suite of options from sidewalks to signage and pavement markings
 - Costs developed using the 2020 VTrans Bicycle and Pedestrian Program Unit Cost Report and modified based on feedback from the previous meeting to include a 26.5% escalation
 - Estimated cost of \$1.65 million

Cochran Road - Feasibility Study

- Length of Cochran Road between those two segments approximately 2.5 miles
- This is the 45 mph section with upwards of 2,700 vehicles per day
- Improvement Options:
 - Paved shoulder concept with small amount of widening 5-6 feet to gain an area for walking and biking, potentially paved with a rumble strip separation
 - Based on constraints the shoulder would be predominantly on the south side of the roadway
 - Additional warning signs at curves and new bicycle signage to give 4 feet of clearance

- Constraints:
 - On the north side drop off to river
 - o On the south side ledge and hillside
 - Limited sight distances which present safety challenges
 - o Guardrail and floodplain challenges
- Recommendation:
 - A suite of options from sidewalks to signage and pavement markings
 - Costs developed using the 2020 VTrans Bicycle and Pedestrian Program Unit Cost Report and modified based on feedback from the previous meeting to include a 26.5% escalation
 - Estimated cost of upwards of \$3 million

Short Term Recommendations

- Cost has been a major concern for the Town and the community, as such, less costly short term recommendations are also included in the Study
- Some of these recommendations were the result of a separate Speed Study completed by the CCRPC which Sai Sarepalli will present
- Recommendations:
 - Implement a 35 mph speed zones to transition between the 45 mph and 25 mph zones
 - Add 15 mph advisory speed plagues to the existing speed hump warning signs
 - Add "slow" or "25 mph" pavement markings in both the Richmond and Jonesville villages in-between speed humps
 - Consider additional speed hump after implementation of supplemental plaques and pavement markings if deemed necessary
 - o Add trail marker signs at various recreational sites to raise awareness of potential activity
 - Consider additional warning signs along the 45 mph segment of Cochran Road where horizontal curves or hills limit sight lines for guidance and safety

CCRPC SPEED STUDY

Study Area and Existing Conditions

• At the request of the town, the CCRPC staff investigated and evaluated the posted speed limit on Cochran Road between Cochran's Ski Area and Dugway Road

Field Observations

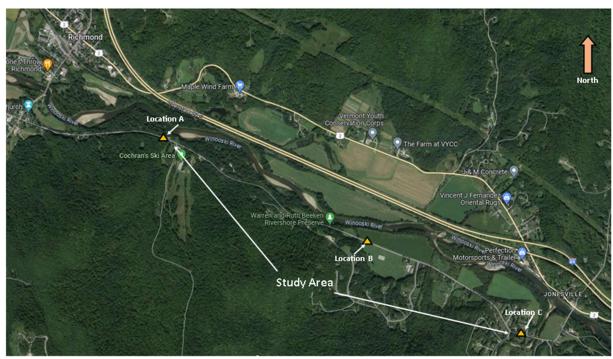
- Staff conducted a windshield survey of the study corridor to identify safety related issues, roadway characteristics, and roadside safety hazards
 - o Width varies between 22-24 feet with little or no marked shoulder
 - Posted speed limit is 45 mph
 - Some driveways are obscured due to vegetation
 - Wayfinding signs for Cochran's ski area inadequate
- No dedicated bicycle or pedestrian facilities forcing vulnerable users to road share with vehicles

Crash History

- Crash data reviewed for the last five years reported 7 crashes
 - o 6 were reported as property damage only
 - 1 was reported with injury
 - No pedestrian or bicyclist involved crashes were reported
- Additional crashes could have taken place and gone unreported

Speed Data

Speed data was collected using Automatic Traffic Recorder (ATR) at three locations between
 6/27/2024 and 7/03/2024 at locations A and C and between 5/12/2023 and 5/18/2023 at location B



- Note location A and B are in the 45 mph zone while location C is in the 25 mph zone
- The 85th percentile speed at location A was observed as 44 mph eastbound and 47 mph westbound
 - Most drivers are driving at the posted speed limit
- The 85th percentile speed at location B was observed as 51 mph eastbound and 53 mph westbound
 - Most drivers are driving at or below 53 mph
- The 85th percentile speed at location C was observed as 25 mph eastbound and 25 mph westbound
 - Most drivers are driving at the posted speed limit

Bike Trips

- The study didn't directly collect bike data, but staff did crowdsource bike data using the Strava-Metro App
 - o This does not denote the entire population, but provides a good comparison
 - You can see based on the crowdsourced data that bikes are utilizing Cochran Road especially in the summer and fall

Speed Study Recommendations

- Staff put together low-cost short-term recommendations for Cochran Road
 - o 35 mph transition zones between the 25 mph and 45 mph zones
 - o Bike clearance signage for vehicles
 - Recreational area signage for vehicular awareness

PUBLIC COMMENTS/QUESTIONS

- Jay Furr (Selectboard/Advisory Committee Member) First questions and comments from the board.
- Bard Hill (Selectboard/Advisory Committee Member) I have one. First, thank you for this. I really like both the data and the recommendations. A reminder we are here to talk about the presentation and the report versus an actual plan of what we would select or not select. I have one really little question, which might seem goofy to some of you, the image of the "Ski Area" sign shows a chairlift. I only wanted to mention that Cochran Ski Area does not have a chairlift. Is there an alternative sign? I know that is kind of funny, but I do actually mean it.

- Sai Sarepalli (CCRPC) We can look into it.
- Adam Wood (Selectboard/Advisory Committee Member) I do appreciate this. I know last time we had looked at this as a plan and these are not feasible for Richmond at this point, but it is great to have a goal to work towards and it is great to have some professionally recommended options to really sort this out in the short term. It is not an ideal situation, but I don't think we are going to be able to spend 5 or 6 or 7 million dollars right away, so this is great. Thank you.
- Jay Furr (Selectboard/Advisory Committee Member) I want to agree about the transitions zones. I walk there a lot, and I frequently see drivers hit the end of the 45 mph area and take a half mile to a mile to get down to 25 mph. At that point, the people who are living at the near end of the 25 mph area are not getting much of the benefit. I think that would be a very nice thing to start to have.
- Adam Wood (Selectboard/Advisory Committee Member) The "reduce speed" signs seem obvious looking at it now, but they are not there, and I drive there and am accustomed to slowing down, but if you are new or don't drive there all the time these will make it much more obvious.
- Jay Furr (Selectboard/Advisory Committee Member) Now I am going to say something that Pete
 usually says, and he can say it to if he wants, but there comes a point with signs where there are too
 many signs and people begin to tune them out. So, you can put up all the signs in the world, but
 when people have seen them enough, they can tune them out. Sometimes less is more, you need to
 choose what makes sense.
- Keith Oborne (Town of Richmond, Director of Planning and Zoning) Passive controls can be hit or miss.
- Jay Furr (Selectboard/Advisory Committee Member) I think that is a good description what Keith just said. The passive versus active because the speed humps are active versus the signage which is passive. I would draw people's attention to this though, there really is an interesting curve almost a bell curve for the distribution of speeds, but there are a handful of people going over 70 mph on that road which is pretty fast for those of us that recall driving it. Especially in the middle of those round curves and ups and downs, one would guess there is not much time to react to obstacles in the road at that speed. We have been very fortunate that there have been so few accidents there. Only one incident with an injury involving a car and the rest were property damage and no inquiries regarding bikes or pedestrians. That said, I have had to dive out of the way on many occasions so I would love to be able to at least paved shoulders, but the \$6 million dollars...
- Josh Arneson (Town of Richmond, Town Manager) That is part of what we asked Erik's team to do was to put together a menu of options knowing that the paved shoulders might be aspirational and something to look toward down the road, and maybe in 5 years, the finances will be different and that will be means to finance that. But there are a number of things here, they suggest that would actually make a difference.
- Jay Furr (Selectboard/Advisory Committee Member) Opened up discussion to the public.
- Lisa Kory (Member of the Public) I like the presentation and certainly more in line with what the town would be able to spend. I did have a question about the speed limits. I definitely think that is an issue on the main part of Cochran Road and I was wondering if it is typical in this sort of situation where you have a narrow road, no shoulders, or even in many places no guardrail on the edges of the travelable portions of the road where there is a lot or some amount of bicycle or pedestrian traffic, is it typical to have a speed limit of 45 mph, you know with the blind curves and all of that that we have on Cochran Road. Is that still considered reasonable in the industry to have a 45 mph speed limit?
- Erik Maki (WSP) I don't know if it is typical, but it is more common on rural roads which this would

be classified as a rural roadway. That is where Federal Highway has done quite a few studies about rural roads where the amount of cars are lower and the speeds are generally higher I think because people have a sense of comfort as there are not so many driveways. There is a tendency for people to drive faster on roads of this type for sure.

- Lisa Kory (Member of the Public) So is it considered safe to have this type of winding road and I presume walkers? That is really what I am wondering. I mean you have driven the road, you know there are blind curves and cars are going over 45 mph currently.
- Jason Charest (CCRPC) I didn't see anything in Sai's memo that led us to believe that there are unsafe conditions in the roadway. In other words, the crash data doesn't speak to that. We can't go as far as to say this is a typical roadway and it is going to be this speed limit, it really all depends on the conditions of the roadway and people on the roadway generally feel comfortable going over the 45 mph posted speed limit so without drastic changes to the physical roadway i.e. more speed tables or deflections, etc. to inhibit their speeds, posting a lower speed limit is not an effective solution in slowing cars down in this given scenario.
- Lisa Kory (Member of the Public) Do you think the 35 mph areas in those transition areas will still work then?
- Jason Charest (CCRPC) Yes.
- Sai Sarepalli (CCRPC) Yes because of the land uses with the houses, Ski Area, driveways, etc. These signs are more to give the driver a cue that there is a change of setting. That is why these transition zones help to slow drivers down. Drivers won't slow down until they see the 35 mph speed sign. They will continue speeding through these neighborhoods until they see the 35 mph sign. These transitional areas help drivers to slow down in those areas.
- Susan Wells (Member of the Public) Thank you very much. I have a couple of questions. First of all, thanks to Erik and your staff, it has really been a good process with lots of good data and suggestions and visuals. You did a great job. My first question is what does it take to lower the speed limit? Because we have been told that the state does a study and if there is not good enough data or crash data it is very hard to get the speed limit lowered. Is that accurate? How do you do that?
- Erik Maki (WSP) That has always been my understanding as well that you collect the speeds as Sai did and it shows you a higher number so a lot of times officials are hesitant to just try to lower it. Over the years it has always been difficult because the speed data always seems to be higher than what you want it to be. As Jason mentioned, you really need to make some physical alternations to the roadway that would make the drivers slow down because of those changes. I think on this type of road it can be difficult because of the mountainous terrain and the drop offs to the river it is just so constrained in so many areas. You can imagine when they built this road they had so much ledge that they tried to avoid or maybe they took some of it out, but when I look at the northside of the road up against the river you can see the slope of that area where the guardrail is just matches the roadway completely so all of that was built out and graded for the roadway so that is not the natural terrain so it very much was a difficult project and that's probably why it wasn't built out further to have proper shoulders or sidewalks because it was just too expensive and the terrain is a bit harsh. The drivers are going to do what they are doing as the speed data shows so unless you can make a physical change, it can be difficult to make that change happen.
- Josh Arneson (Town of Richmond, Town Manager) Susan to answer your question a bit more directly. The study that Sai just completed, that is the study that we need as backup to change any speed limits. As Jay talked about before we can't just lower the speed limit from 45 mph to 35 mph without an engineering study to back it up and that is what Sai just did for us and that is where the recommendations for the speed transitions come from.

- Susan Wells (Member of the Public) Okay, that is wonderful. When driving around Chittenden County you see lots of place where little islands in the middle of the road narrow the path and forces cars to slow down. Is that something you have any recommendations about?
- Sai Sarepalli (CCRPC) I looked at that, but given the limitations on both sides of the road it was a bit challenging. I didn't recommend that, but in the report I did recommend adding a fog line 6 inches wide with narrow travel lanes that helps to reduce speeds.
- Josh Arneson (Town of Richmond, Town Manager) Fog line, white line. We actually do have fog lines now as of last spring.
- Susan Wells (Member of the Public) I don't know if that did anything. My last question or really more of a comment is that I like that idea of adding a speed hump or two. One spot that is really a problem on the Bridge Street end of Cochran Road is that we have done nothing with the intersection of Bridge Street, Cochran Road, Huntington Road and Thompson Road so cars are still coming at really high speeds from Huntington Road across the intersection to Cochran Road and it isn't until they hit that first speed hump and sometimes not even then that they begin to slow down. So that is a very dangerous situation. It is great to have the crosswalks at Round Church Road, but there has to be a way to slow down the cars coming across that intersection. It is just very, very dangerous with the speeds they are traveling and then you have the yahoos that think they don't have to slow down for the speed hump at all.
- Erik Maki (WSP) Yes, I think you need a bit more of a built-up environment there. Everything is just too broad, and the corners are too sweeping. You typically see projects where you tighten up the radiuses so drivers are forced to drive slowly, and you add the crosswalks and you build up the environment to show it is an important area that gets that type of activity you would see people begin to respect it more.
- Susan Wells (Member of the Public) Yes, and I think that recommendation has been made. Thank you.
- Jay Furr (Selectboard/Advisory Committee Member) Any other questions from that board? Any further comments from the audience? I again want to echo what my compatriots and fellow citizens have said and thank you for this study. The Selectboard does need to accept the study. There is a sample motion in the packet if you would like to look at it.
- Adam Wood (Selectboard/Advisory Committee Member) I move to accept the Cochran Road Corridor Study.
- Bard Hill (Selectboard/Advisory Committee Member) I will second that.
- Jay Furr (Selectboard/Advisory Committee Member) We have a motion by Adam Wood and a second by Bard Hill to accept the Cochran Road Corridor Study. Please state your name and your vote.
- Adam Wood (Selectboard/Advisory Committee Member) Aye.
- Bard Hill (Selectboard/Advisory Committee Member) Aye.
- David Sanders (Selectboard/Advisory Committee Member) Aye.
- Jay Furr (Selectboard/Advisory Committee Member) Aye.
- Jay Furr (Selectboard/Advisory Committee Member) Thank you very much. Have a pleasant evening. Susan, go ahead.

- Susan Wells (Member of the Public) Just one more question, what happens now? Now that the report has been accepted then what is the next step?
- Josh Arneson (Town of Richmond, Town Manager) The first thing to act on is change the
 ordinance to allow the 35 mph speed zones and some of that signage which is pretty quick. Then
 the board will need to take a look at some of the lower cost options and direct us in what to
 implement.
- Bard Hill (Selectboard/Advisory Committee Member) That is what I was trying to raise, I think we need to put this back on to say what will we actually implement. So, we got the recommendations, we accepted the study, now we need to look at the recommendations with the low end around \$500 and the high end was \$2 million depending on which one you pick right? And pick what is feasible in the near term. I have been contemplating what Susan was talking about people carrying the speed from the other side of the road and having to go upstream so to speak to figure out what you might do to slow people down before they get there. That might be another part of the conversation. This will be another agenda item including the traffic ordinance and then what adjustments we want to make. In my opinion, Pete should be an active participant in that conversation.

Discussion ended at 8:45 PM.

ATTENDEES

Project Team: Jason Charest (CCRPC), Sai Sarepalli (CCRPC), Erik Maki (WSP), Annabelle Dally (WSP), Jenny Zhang (WSP), Keith Oborne (Town of Richmond, Director of Planning and Zoning), Josh Arneson (Town of Richmond, Town Manager)

Selectboard/Advisory Committee Members: Jay Furr, Bard Hill, David Sander, Adam Wood

Other/Public: See official Town Selectboard meeting minutes

ATTACHMENTS

Presentation Slides (5/19/2025)

Town Selectboard official meeting agenda

Meeting Recording: https://youtu.be/6SHsXduKOMs?si=APaeNGfNRODLuFRy (Courtesy of MMCTV by Erin Wagg)

1	Town of Richmond
2	Selectboard Meeting Minutes of Mov. 10, 2025
3 4	Minutes of May 19, 2025
5 6	Members Present: Bard Hill, Jay Furr, David Sander, Adam Wood
7 8	Absent: Caitlin Filkins
9 10 11 12	Staff Present: Town Manager Josh Arneson; Assistant to the Town Manager Duncan Wardwell; Planning and Zoning Director Keith Oborne, Town Clerk Susan Parent, Highway Dept Manager Pete Gosselin.
13 14 15 16 17 18 19	Others Present: MMCTV Erin Wagg, Denise Barnard Richmond Parks Commission, Bradley Holt, David Sunshine chair of DRB, Robert DiPalma, Charlie Baker, Sai Sarepalli, Jason Charest, Jason Pelletier, Bradley Holt, Sue Pochop, Tom Astle, Annabelle Dally WSP, abrown, Susan Wells, Robet's iPad, Kyle, Jenny Zhang WSP, Dan Noyes, Lisa Kory, Brendan Filkins, Virginia Clarke Planning Commission Chair, Martha Waterman, Trevor Brooks, Chelsye Brooks.
20 21 22	MMCTV Video: Recorded by MMCTV by Erin Wagg https://youtu.be/6SHsXduKOMs?si=APaeNGfNRODLuFRy
23 24	Call to Order: 7:00 p.m.
25 26	Welcome by: Furr
27 28	Public Comment: None
29 30	Items for Presentation or Discussion with those present
31 32	Consideration of approving the use of the Town Center for the Richmond Holiday Market
33 34	Timestamp: 0:00
35 36 37 38	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3a SelectboardUseRequest_Holiday_Market.pdf
39 40	People who participated in discussion: Furr, Arneson
41 42	Arneson said the building has been used for this before.
43 44 45	Hill moved to approve the use of the Town Center Building for the Holiday Market on Saturday, December 6, 2025 with set-up occurring on the evening of Friday, December 5, 2025. Wood seconded.
46 47 48	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

49	Consideration of approving leases with Town Center Tenants
50	Timestamp: 0:02
51	
52	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b1_RID21-
53	003 Town Ctr 3rd Flr Lease Agree with MMCTV 2025 - 2027 DRAFT 5-9-
54	25_1_clean.pdf
55	
56	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b2_RID21-
57	003 Town Ctr_3rd_Flr_ Lease Agree with MMCTV_20252027_DRAFT_5-9-
58	<u>25_1pdf</u>
59	
60	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b3_RID21-
61	004 Town Ctr_3rd_Flr_ Lease_with_OCCC_20252027_DRAFT_5-9-25_clean.pdf
62	1 // 1 /CI /CI /CI /CI / /0007/07/01 / DVD01
63	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b4_RID21-
64	004 Town Ctr 3rd Flr Lease with OCCC 2025 - 2027 DRAFT 5-9-25.pdf
65	1 // 1 /C1 1 /C1
66	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b5_RID21-
67	004 Town Ctr 3rd Flr Lease with RHS 2025 - 2027 DRAFT 5-9-25 clean.pdf
68	1 // / /CI /
69	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b6_RID21-
70	004 Town Ctr 3rd Flr Lease with RHS 2025 - 2027 DRAFT 5-9-25.pdf
71	1 // 1 /C1 1 /C1 /C1 /1 /2025/05/217 DID21
72	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b7_RID21-
73	005 Town Ctr 3rd Flr Lease with RCSC 2025-2027 DRAFT 5-9-25 clean.pdf
74 75	1.4 // : 1 1.4 /C1 1.1 /C1 /C 1.4 1/M /: /2025/05/21 0 DID21
75 70	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3b8_RID21-
76	005 Town Ctr 3rd Flr Lease with RCSC 2025-2027 DRAFT 5-9-25.pdf
77 70	
78 70	Decade who neglicinated in discussion. From America
79	People who participated in discussion: Furr, Arneson
80	Ameson ovaloimed that this was on the accords several weeks are and since then he has
81 82	Arneson exclaimed that this was on the agenda several weeks ago and since then he has
82 83	changed the wording so that tenants can be moved if needed during renovations. Furr abstained because he is on the Board for MMCTV.
	abstailed because he is on the Board for WIVICTV.
84 85	
86	Wood moved to approve the league with MMCTV. The Community Series Center The
87	Wood moved to approve the leases with MMCTV, The Community Senior Center, The Richmond Historical Society and Our Community Cares Camp. Hill seconded.
88	Roll Call Vote: Hill, Sander, Wood in favor. Furr abstain. Motion approved.
89	Kon Can voie. Inn, Sanaer, wood in javor. Furr abstain. Monon approved.
90	
91	Consideration of approving easement with VELCO for access to the Andrews
92	Community Forest
93	Timestamp: 0:04
94	Timesump. 0.07
95	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3c2 Final A
96	CF Access Easement 5-13-25 Clean with map.pdf
97	or
98	
98	

99	People who participated in discussion: Furr, Arneson
100	
101	Arneson presented how the funds have been allocated and used since he did not have that
102	information the last time this was on the agenda.
103	
104	
105	Hill moved move to approve the easement for VELCO for access to the power lines
106	located in the Andrews Community Forest which includes payments by VELCO to the
107	Town of a \$2,500 maintenance payment and an \$8,549.45 easement payment, for a total
108	of \$11,049.45 with \$504.50 deposited into a general revenue account to cover legal fees
109	and the remining \$10,544.95 to be deposited into the Andrews Community Forest
110	Reserve Fund with \$2,500.00 earmarked for repairs to the VAST trail previously used by
111	VELCO and to appoint Town Manager Josh Arneson as the Duly Authorized Agent of the
112	Town of Richmond. Wood seconded.
113	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
114	
115	
116	Consideration of applying for a USA Pickleball Serves grant to pay for a portion of
117	the total cost of the pickleball courts
118	Timestamp: 0:08
119	
120	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3d_Pickleball
121	<u>Grant.pdf</u>
122	
123	
124	People who participated in discussion: Furr, Barnard
125	Domand said two \$50,000 arouts are gains to be given out throughout the United States
126 127	Barnard said two \$50,000 grants are going to be given out throughout the United States,
128	she thinks applying for the grant is a long shot but she remains hopeful and wants to apply before the deadline on June 3, 2025. There is no cost to apply.
129	apply before the deadfine on Julie 3, 2023. There is no cost to apply.
130	
131	Wood moved to approve submitting the grant application for \$50,000.00 to go toward the
132	cost of the pickleball courts. Hill seconded.
133	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
134	non can voice I arr, 11m, sander, wood in javor. 11onon approved.
135	
136	Consideration of making appointments to boards/committees/commissions
137	Timestamp: 0:11
138	
139	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3e Committe
140	eIndexApplications2025.pdf
141	
142	People who participated in discussion: Furr, Arneson, Petersen, Holt, Sunshine,
143	DiPalma, Hill, Wood
144	
145	
146	Development Review Board (DRB) - ONE 3-year term and TWO Vacant-Alternate
147	terms ending in 2026. Roger Pedersen and Robert DiPalma applied.

- Pedersen is currently on the DRB, it is his term that is expiring and he wishes to serve
- another term. Holt is opposed to allowing Petersen to serve another term, because he
- 150 (Holt) hasn't felt heard in the DRB meetings and finds Peterson abrasive. Sunshine feels
- Pedersen should have the chance to serve another term and believes he is well-read and
- prepared for the DRB meetings. Sunshine also feels DiPalma should be a Vacant-
- 153 Alternate. DiPalma said he is a lawyer and would like to be of service and a resource for
- the DRB, he is new to Richmond. Hill asked if DiPalma would be okay with being an
- alternate at this time, which he agreed to. Wood explained that the ethics policy has
- recently been revamped in the Town and throughout the State and he thinks going in a
- different direction for the DRB might be wise, he suggested DiPalma for the 3-year term
- and Pedersen for the Alternate spot. Pedersen was not interested in the Alternate position.
- 159
- Wood moved to appoint to the Development Review Board Robert DiPalma to a 3-yearterm. Hill seconded.
- 162 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
- 163
- Andrews Community Forest Committee TWO 3-year terms, ONE 3-year term for a seat filled by a Trails Committee Representative.
- Sonya Mastersen applied; they are not currently on the committee.

167

- 168 Wood moved to appoint to the ACFC Sonya Mastersen to a 3-year term. Hill seconded.
- 169 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

170

- 171 Conservation Commission ONE 4-year terms, ONE Alternate 4-year term. Nobody
- 172 applied

173

174 Parking Advisory Committee – No currently available terms. Nobody applied

175

176 Planning Commission – No currently available terms

177

- 178 Recreation Committee –TWO 3-year terms, TWO Vacant 2-year terms ending in 2026,
- 179 ONE Vacant 3-year term ending in 2026 Nobody applied

180

- 181 Town Center Building & Campus Committee ONE 1-year term, ONE Open Ended
- Selectboard term.

183

- Cara LaBounty applied. All other seats are open ended, but when the motion was made
- last year to appoint LaBounty it was made (in error) for a one year term, given that all the
- other terms were open ended, hers should also be open-ended.

187

- 188 Wood moved to appoint Cara LaBounty to the TCBC to an OPEN ENDED term. Hill
- 189 *seconded*.
- 190 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

191

192 Trails Committee – FOUR 3-year terms, ONE Vacant term ending in 2026.

193

Alison Aiken, Jean Bressor, and Trum Rittling applied. Bressor and Aiken are current members.

196

- 197 Hill moved to appoint to the Trails Committee Alison Aiken to a 3-year term. Wood
- 198 seconded.
- 199 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

200

- 201 Wood moved to appoint to the Trails Committee Jean Bressor to a 3-year term. Hill
- *seconded.*
- 203 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

204

- 205 Hill moved to appoint to the Trails Committee Trum Rittling to a 3-year term. Wood206 seconded.
- 207 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

208

209 Transportation Committee – ONE 3-year term, FOUR 3-year terms ending in 2026.

210

211 Nobody applied

212

213 Gardening Committee – THREE 2-year terms

214

215 Nobody applied

216

217 Housing Committee –TWO 3-year terms, ONE Alternate 2-year term.

218

219 Connie van Eeghen applied and is currently on the Committee.

220

- Hill moved to appoint to the Housing Committee Connie van Eeghen to a 3-year term.
- 222 Wood seconded.
- 223 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

224225

- 4th of July Parade & Fireworks Committee All interested persons please apply to 1-year
 terms.
- 228 Jay Furr, Julie Wahlin, Stefani Hartsfield, and Rebecca Roose applied

229

- 230 Wood moved to appoint to the 4th of July Parade & Fireworks Committee all current
- 231 members, Jay Furr, Julie Wahlin, and Stefani Hartsfield to a 1-year term. Hill seconded.
- 232 Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.

233234

- 235 Volunteers Green & Browns Court Project Committee NO currently available OPEN-
- 236 ENDED terms.

237

Nobody applied

239

240 Committee to Explore Path Funding – THREE 1-year terms

241

- 242 Gary Bressor, Jared Katz, and Mark Aiken applied. All three are currently on the
- 243 Committee.

244

- 245 Hill move to appoint to the Committee to Explore Path Funding all three members Gary
- 246 Bressor, Jared Katz, and Mark Aiken to a 1-year term. Wood seconded.

247	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.		
248			
249	Other Volunteer Openings:		
250 251	Zoning Administrator & E-911 Coordinator		
252	With the departure of Tyler Machie, the Calcotheand should fill this mosition by		
253 254	With the departure of Tyler Machia, the Selectboard should fill this position by appointing Planning and Zoning Director Keith Oborne.		
255	appointing I familing and Zolling Director Retail Coorne.		
256	Hill moved to appoint Keith Oborne to a three-year term as the Zoning Administrator &		
257	E-911 Coordinator. Sander seconded.		
258	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.		
259			
260	Service Officer: 1 opening for a 1-year term		
261			
262	Nobody applied		
263			
264	Animal Control Officer: 1 opening for a 1-year term		
265			
266	Andy Squires applied		
267			
268	Hill moved to appoint Andy Squires as Animal Control Officer for a 1-year term. Wood		
269 270	seconded. Poll Call Votes From Hill Sander Wood in favor Motion approved.		
270	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.		
271	Emergency Management Director: 1 opening for a 1-year term		
273	Emergency Management Director. I opening for a 1-year term		
274	Town Manager Josh Arneson has served in this role for the past six years. He is willing to		
275	serve again.		
276	201 10 110 110 110 110 110 110 110 110 1		
277	Hill moved to appoint Josh Arneson as the Emergency Management Director. Sander		
278	seconded.		
279	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.		
280			
281	Energy Coordinator: 1 opening for a 1-year term		
282			
283	Nobody applied		
284			
285	Tree Warden: 1, 1-year term and 1 Deputy for a 1-year term		
286			
287	Caitlin Littlefield applied for Tree Warden. Matt Leonetti applied for Deputy Tree		
288	Warden. Both have served in these roles for the past several years.		
289 290	Hill moved to appoint Caitlin Littlefield as Tree Warden for a 1-year term and to appoint		
290	Matt Leonetti as Deputy Tree Warden for a 1-year term. Wood seconded.		
	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.		
292 293	1000 Can 1000. 1 mil, 11m, Samuer, 11000 m juvor. 11000 upproved.		
294	Town Fence Viewer: 2 openings each for a 1-year term		
295	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
296	Carole Furr applied		

297	
298 299	Wood moved to appoint Carole Furr as Town Fence Viewer for a 1-year term. Hill seconded.
300 301	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
302 303	Inspector of Lumber, Shingles, and Wood: 1 opening for a 1-year term
304 305	Jon Kart applied and is the current holder of this position.
306 307	Hill moved to appoint Jon Kart as Inspector of Lumber, Shingles, and Wood for a 1-year term. Wood seconded.
308 309	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
310 311	Weigher of Coal: Multiple openings each for a 1-year term
312 313	Jay Furr applied and is the current holder of this position.
314 315 316	Wood moved to appoint (Jay Furr) as Weigher of Coal for a 1-year term. Hill seconded. Roll Call Vote: Hill, Sander, Wood in favor. Furr abstained. Motion approved.
317 318	Lake Iroquois Recreation District Appointee: 1 opening for 2-year term
319 320	June Heston applied
321 322	Hill moved to appoint (June Heston) as Lake Iroquois Recreation District Appointee for a 2-year term. Wood seconded.
323 324	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
325 326 327	Richmond Rescue Board of Directors-Liaison/Representative: 1 opening for a 1-year term
328 329	Amy Wardwell applied and currently serves in this role.
330 331 332	Hill moved to appoint Amy Wardwell as Richmond Rescue Board of Directors- Liaison/Representative for a 1-year term. Wood seconded. Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
333 334	Chittenden Solid Waste District: 1 opening for 2-year term, 1 opening for 2-year term
335 336	and Vacant Alternate 2-year term
337 338	Andrew French applied and currently serves in this role.
339 340	Hill move to appoint Andrew French to the Chittenden Solid Waste District for a 2-year term. Wood seconded.
341 342	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
343 344	Chittenden County Regional Planning Commission Board of Directors: 1 opening for Alternate 2-year term.
345 346	Jay Furr applied.

347	
348	Hill move to appoint Jay Furr to the Chittenden County Regional Planning Commission
349	Board of Directors for an Alternate 2-year term. Wood seconded.
350	Roll Call Vote: Hill, Sander, Wood in favor. Furr abstain. Motion approved.
351	
352	Chittenden County Regional Planning Commission Planning Advisory Committee: 1
353	opening for a representative and one opening for an alternate. Both are 2-year terms
354	opening for a representative and one opening for an alternate. Both are 2 year terms
355	Keith Oborne has filled this role for the past few years and Planning Commission Chair
356	Virginia Clarke has served as the alternate for the past few years.
357	Virginia Clarke has served as the atternate for the past few years.
358	Hill moved to appoint Keith Oborne as the Richmond Representative and Virginia Clarke
359	as the Alternate Richmond Representative to the Chittenden County Regional Planning
360	Commission Planning Advisory Committee. Sander seconded.
361	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
362	Kon Can voie. Furr, Inn, Sander, wood in Javor. Monon approved.
363	Chittenden Unit for Special Investigations Policy Board: 1 opening for a 1-year term
364	Cintenden Ont for Special investigations Foncy Board. Topening for a 1-year term
365	Jay Furr applied and currently serves in this role.
366	Jay Pull applied and currently serves in this role.
367	Hill moved to appoint In Furr to the Chittenden Unit for Special Investigations Policy
368	Hill moved to appoint Jay Furr to the Chittenden Unit for Special Investigations Policy Board for a 1-year term Sander seconded.
369	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
370	Kon Can voie. Furr, Inn, Sander, wood in Javor. Monon approved.
370	Chittenden County Regional Planning Commission Transportation Advisory Committee
371	Cintenden County Regional Flamming Commission Transportation Advisory Committee
373	Arneson has served in this role for the past several years and am willing to serve again.
374	Ameson has served in this role for the past several years and an winning to serve again.
375	Hill moved to appoint Josh Arneson as the Richmond representative to the Chittenden
376	County Regional Planning Commission Transportation Advisory Committee. Sander
377	seconded.
378	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
379	Kon Can voie. Furr, Hin, Sander, wood in Javor. Monon approved.
380	Chittenden County Regional Planning Commission Clean Water Advisory Committee
381	Cintenden County Regional Flamming Commission Clean Water Advisory Committee
382	Keith Oborne has served in this role for the past several years.
383	Retui Obothe has served in this fole for the past several years.
384	Hill moved to appoint Keith Oborne as the Richmond representative to the Chittenden
385	County Regional Planning Commission Clean Water Advisory Committee. Sander
386	seconded.
387	Roll Call Vote: Furr, Hill, Sander, Wood in favor. Motion approved.
388	Kon Can voie. Furr, Inn, Sander, wood in Javor. Monon approved.
389	
390	Presentation of the Cochran Rd. Corridor and Scoping Study exploring traffic
391	calming and bicycle & pedestrian usage on Cochran Rd. and the Cochran Rd. Speed
392	Study
393	Timestamp: 1:04
394	Timestamp. 1.04
395	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3f1 CCRPC
396	Richmond Cochran Rd-Scoping Study May 2025.pdf
555	Montholia Coolinal Ra Deophilg Duay May 2023.pul

https://www.richmondyt.gov/fileadmin/files/Selecthoord/Mactings/2025/05/2f2 A
https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3f2_A-Richmond-Cochran-Rd-Appendix_A.pdf
https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3f2a_B-Richmond-Cochran-Rd-Appendix_B.pdf
https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3f3_C-CochranRoad_SpeedStudy_Appendix_C.pdf
People who participated in discussion: Furr, Oborne, Maki, Wells, Sarepelli
Oborne explained that the engineers have presented several solutions and prices for those options in their report. Maki went over the extensive report that they have created. Wells wondered why the speed limit couldn't be lowered from 45 to 35 mph on Cochran Rd and Arneson replied that a speed study needs to be done prior to applying for a speed reduction. Sarepelli, who did the speed study, described some other ideas he had for lowering speeds. Wells is worried about the speeds people drive on Bridge St and Cochran Rd.
Wood moved to accept the Cochran Rd. Corridor and Scoping Study. Hill seconded. Roll Call Vote: Hill, Sander, Furr, Wood in favor. Motion approved.
Consideration of providing feedback on future land use mapping and housing targets Timestamp: 1:44
https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3g1_5.19.25_
<u>df</u>
df https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3g2
https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3g2 CCRPC_DraftFLU_Richmond_20250318.pdf https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3g3

Oborne read a memo from Clarke that explained some of the land use changes that have been agreed upon referring to input made by CCRPC, the Housing Committee and the Planning Commission. Hill feels a disclaimer or preface on the maps that describe which parcels that are not available for development is important, such as school surroundings and grounds. Hill asked Oborne if it were fair to mention that future land use could change and the changes that are proposed now may involve distant future use, which Oborne agreed to. Baker chimed in to say that certain road rules affect driveways and subdivision roads, which presently the rules are set for a specific length of driveway.

Arneson put the land use map on the screen. Oborne warned that Zoning rules could also change. Furr brought up the housing targets for 2050, and for Richmond we are targeted to add 606 housing units, which Furr feels is a lofty goal based on the river and mountains we have in Richmond. Baker replied that the county total is 64% more housing than we have today, and they did consider resources and Zoning when they created this housing target. He encourages Richmond to use these targets as a guide, realizing infrastructure is driving this and to keep this as a goal, not a law. Wood thinks it's hard to find people to build 4-6 family units. Clarke added that the Housing Committee, Conservation Commission and Planning Commission are still working on the map and she hopes those future recommendations are taken into account by Baker moving forward. Baker said the names they are using and colors were mandated by legislature.

Update on highway projects submitted to FEMA for consideration as mitigation projects

Timestamp: 2:12

People who participated in the discussion: Gosselin, Furr, Arneson, Hill, Wood

Furr said these are projects the Town is asking FEMA to pay for. Gosselin said all the culverts have failed more than once in the past two years, and these culverts need to be upgraded and are at this point critical. One of the critical issues is contacting all the different landowners that abut these culverts. Hill asked with the new federal government is FEMA engaging with the Town with respect to repayment from past flooding. Arneson said FEMA owes the Town \$2 million for the past two floods, which he believes they are still intending to repay. Wood cautioned that moving forward perhaps it would be wise to be more conservative with road expenditures.

Consideration of selecting a location for a rectangular rapid flashing beacon crosswalk

487 Timestamp: 2:28

People who participated in discussion: Arneson, Furr, Wood, Gosselin, Hill, Wells

Furr explained there are already a few of these in Town, which work well. Wood wondered where another intersection is, which would warrant installing another one, which Arneson gave three intersections that were candidates. Furr thinks Hinesburg Rd is a better location. Gosselin said Jolina Ct and Railroad St is very dark at night. Hill agrees

495 496 497 498	Jolina Ct is a good location. Wells wants the discussion about Huntington Rd and Cochran Rd safety to come back before the Board.
498 499 500	Wood moved to install a rectangular rapid flashing beacon crosswalk at the crosswalk which crosses Bridge St. at the intersection of Jolina Ct. and Railroad St.
501 502 503	Hill seconded. Roll Call Vote: Furr, Wood, Sander, Hill in favor. Motion approved.
504 505 506	Consideration of approval of TA60 Form for Annual Town Highway Financial Plan Timestamp: 2:37
507 508 509	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3j FY26 TA 60 Annual Financial Plan PDF Form - Richmond FINAL.pdf
510 511 512	People who participated in discussion: Furr, Arneson
513 514 515 516	Arneson explained that this grant comes up every year, and if you need an emergency loan you must prove that your repairs are more than 10% of your budget. This is what he has done and shows how money is spent on Town roads throughout the year.
517 518 519 520	Wood moved to approve the TA60 Annual Financial Plan for Town Highways. This replaces the TA60 form that was previously approved on April 7, 2025. Hill seconded. Roll Call Vote: Furr, Sander, Wood, Hill in favor. Motion approved.
521 522 523 524	Consideration of approving a pay increase for Highway staff who become certified to conduct State Vehicle Inspections Timestamp: 2:42
525 526 527 528	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3k_Amendment_to_Classification_and_Compensation_Study_5-19-25.pdf
529 530 531	People who participated in discussion: Gosselin
532 533 534	Gosselin said most of his employees are State Vehicle Inspectors and doing in-house inspections will save the Town around \$8,000.
535 536 537 538 539	Wood moved to approve an hourly pay increase of \$0.50 per hour for Highway staff who become certified to conduct State Vehicle Inspection. Hill seconded. Roll Call Vote: Furr, Sander, Wood, Hill in favor. Motion approved.
540 541	Consideration of selling the fry wagon Timestamp: 2:45
542 543 544	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/31_Request_of_BidsFry_WagonDRAFT.pdf

545	
546	
547	People who participated in discussion: Furr
548	
549	Furr said the fryolators inside the wagon are still working, but the tires are flat.
550	
551	Hill moved to put the Fry Wagon up for sale with a minimum bid of \$2,000 and to put the
552	proceeds from the sale into the July 4th Celebration Reserve Fund. Wood seconded.
553	Roll Call Vote: Furr, Sander, Wood, Hill in favor. Motion approved.
554	
555	
556	Consideration of setting the rate of increase for the pay grid
557	Timestamp: 2:47
558	Timestamp. 2.47
559	
	Decade who negligibled in discussion. From IIII Wood
560	People who participated in discussion: Furr, Hill, Wood
561	
562	Furr said the pay increase is built into the budget for 3%, but only 2% for police officers.
563	Wood asked if the raise for police officers should go up to 3%. Hill said the union for
564	police has it set at 2% currently.
565	
566	Hill moved to increase the Town pay grid by 3% and the Police Pay Grid by 2% for
567	Fiscal Year 2026. Sander seconded.
568	Roll Call Vote: Furr, Sander, Wood, Hill in favor. Motion approved.
569	
570	
571	Discussion of process to select the next Richmond Fire Chief after Chief Gile retires
572	on July 1, 2025
573	Timestamp: 2:51
574	
575	People who participated in discussion: Furr, Arneson, Wood, Hill, Gosselin
576	
577	Furr elaborated that Chief Giles is retiring on July 1, 2025. Currently the Town Manager
578	can name the next Fire Chief, but previously the Selectboard had that power. Wood
579	wondered how many people have applied for this position, which Arneson said two.
580	Wood asked about how many times a Chief can be reappointed and that there should be a
581	review of performance at the end of each term. Hill agreed with Wood's suggestion.
582	Gosselin asked if the Fire Chief had to be a Richmond resident; Wood does not think
583	limiting it to Richmond residents is a good idea, since it's hard enough to find a new
584	Chief from any region. This discussion will be brought back.
585	Chief from any region. This discussion will be brought back.
586	Consideration of annual state I and European Management Disc
587	Consideration of approving the Local Emergency Management Plan
588	Timestamp: 3:05
589	1,, // 11 1, /61 1 161 /61 /1 105 /1 /0005/05/01 1 21
590	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/301_Richmo
591	nd 2025 LEMP Municipal Adoption Form.pdf
592	, , , , , , , , , , , , , , , , , , , ,
593	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3o2_Richmo
594	nd_LEMP_2025_FINAL_with_maps.pdf

595 596	
597 598	People who participated in discussion: Furr, Sander
599 600	Furr said this is a requirement by the State. Arneson said this is put out by CCRPC
601 602	Wood moved to approve the Local Emergency Management Plan. Hill seconded. Roll Call Vote: Furr, Sander, Wood, Hill in favor. Motion approved.
603 604	Rou Can voie. Part, Sanaer, wood, Hu in Javor. Monon approved.
605 606	Consideration of approving quitclaim deeds on Tilden Ave. for stormwater line which will be abandoned after new line is constructed
607 608	Timestamp: 3:06
609 610	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3p1_RID24-001_Stormwater_easement_extinguishment_Draft_Quitclaim_Deed
611 612	RID to Nickerson final 5-14-24 rea.pdf
613 614	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3p2_RID24-001_Stormwater_easement_extinguishment_Draft_Quitclaim_Deed
615 616	RID to Nickerson final 5-14-24 rea_clean.pdf
617 618	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3p3_RID25-002_Stormwater_easement_extinguishment_final_Quitclaim_Deed
619 620	RID to Witters final 4-24-25 rea.pdf
621 622 623 624	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3p4_RID25-002_Stormwater_easement_extinguishmentfinal_Quitclaim_Deed RID_to_Witters_final_4-24-25_rea_clean.pdf
625 626 627	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3p5_WITTERS_TL0102_TILDEN_EASEMENT.pdf
628 629 630	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3p6_Millet_Street_and_Tilden_Avenue_Stormwater_Upgrade_easement_with_map.pdf
631 632	People who participated in the discussion: Arneson
633 634 635	Arneson said this has been before the board several times, and they now have all the paperwork in order between the Town and the Homeowners involved.
636 637 638 639	Wood moved to approve the quitclaim deeds for 86 Tilden Ave. and 102 Tilden Ave. on the condition that construction of a new stormwater pipe is completed, and to appoint Town Manager Josh Arneson as the duly authorized agent to sign the quitclaim deeds once the conditions are met. Hill seconded.
640 641 642	Roll Call Vote: Furr, Sander, Wood, Hill in favor. Motion approved.
643 644	Consideration of approving liquor licenses Timestamp: 3:09

645	
646	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3q1_AGS
647	_Richmond_Market_Liquor_Licenses.pdf
648	
649	https://www.richmondvt.gov/fileadmin/files/Selectboard/Meetings/2025/05/3q2_Sweet_S
650	imone_s_Liquor_Licenses.pdf
651	<u></u>
652	People who participated in the discussion: Furr
653	reopie who participated in the discussion. I thi
654	
655	Wood moved to approve a Second Class Liquor Liganse for ACS Vermont Inc. Hill
656	Wood moved to approve a Second Class Liquor License for AGS Vermont Inc. Hill seconded.
657	Roll Call Vote: Hill, Furr, Sander, Wood in favor. Motion approved.
658	
659	Wood moved to approve a First Class Liquor License and Outdoor Consumption Permit
660	for Sweet Simone's. Hill seconded.
661	Roll Call Vote: Hill, Furr, Sander, Wood in favor. Motion approved.
662	
663	
664	Approval of Minutes, Purchase Orders, Warrants
665	Timestamp: 3:11
666	•
667	Minutes:
668	Trinities.
669	Wood moved to approve the minutes from 4/21/2025. Hill seconded.
670	Roll Call Vote: Hill, Furr, Sander, Wood in favor. Motion approved.
671	Rou Cau voie. Hui, Furr, Sander, wood in Javor. Motion approved.
672	Wood moved to approve the minutes from 05/05/2025. Hill seconded
	Wood moved to approve the minutes from 05/05/2025. Hill seconded.
673	Roll Call Vote: Hill, Furr, Sander, Wood in favor. Motion approved.
674	Mations for December of Orders Nove
675	Motions for Purchase Orders: None
676	
677	Warrants:
678	
679	Wood moved to approve the Warrants as presented. Hill seconded.
680	Roll Call Vote: Hill, Furr, Sander, Wood in favor. Motion approved.
681	
682	
683	Next Meeting Agenda
684	Timestamp: 3:12
685	
686	Fire Chief
687	Reduce speeds at Hinesburg Rd and Cochran Rd
688	
689	
690	Adjourn
691	v
692	Wood moved to adjourn. Hill seconded.
693	Roll Call Vote: Hill, Sander, Furr, Wood in favor. Motion approved.
694	, over 1200, commen, 2 m.i, ii ood mijaron niiom approved

695	
696	Meeting adjourned at: 10:15 p.m.
697	
698	
699	Chat file from Zoom: None
700	

APPENDIX

C

SPEED STUDY



Technical Memorandum

TO: Josh Arneson, Town Manager, Richmond

FROM: Sai Kumar Sarepalli, P.E.; CCRPC

DATE: 04/28/2025

RE: Cochran Road Speed Study

The Town of Richmond requested the Chittenden County Regional Planning Commission (CCRPC) staff to investigate and evaluate the posted speed limit on Cochran Road between Cochran's Ski Area and Dugway Road. In order for a legislative body to determine a safe and reasonable speed on town highways, a traffic engineering investigation (speed study) is required by the Vermont Statutes Annotated Title 23, § 1007. This document provides supporting findings that were used to develop recommendations for establishing speed limits on Cochran Road.

Study Area and Existing Conditions

Cochran Road is a paved road classified by the state as Class II Town Highway and functionally classified as a Minor Collector. The study area extends from the intersection of Cochran Ski Area to Dugway Road. Speed and volume data were collected using Automatic Traffic Recorders (ATRs) along the study corridor at three locations shown in Figure 1.

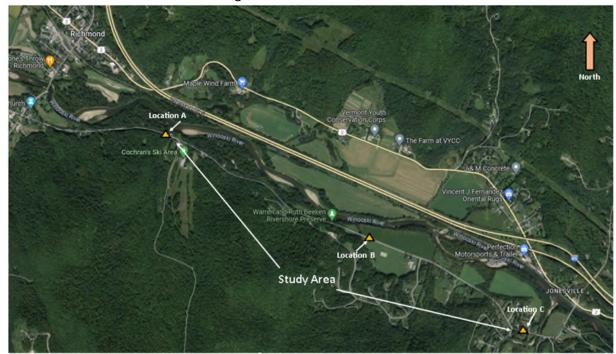


Figure 1: Study Area and ATR Location

Field Observation

CCRPC staff conducted a windshield survey of the study corridor to identify safety related issues, roadway characteristics and roadside safety hazards. The following observations were made during the survey:

- The roadway width varies between 22 ft and 24 ft with no marked shoulders.
- The posted speed limit is 45 mph.
- Some driveways are obscured due to vegetation at some locations along the study area.
- Wayfinding signage to Cochran's Ski Area is inadequate.
- No dedicated bike and ped facilities exist along Cochran Road forcing walkers and bikers to share the road with cars.



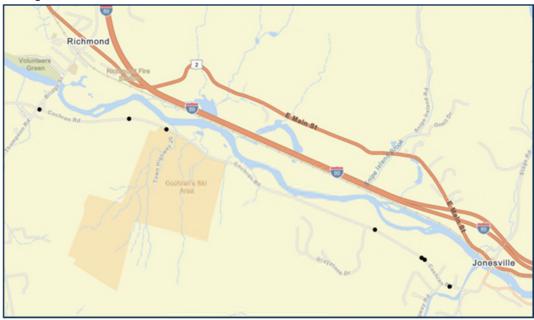
Figure 2: Looking east at the intersection of Cochran Ski Area driveway



Figure 3: Looking east at the intersection of Dugway Road

Crash History

Seven crashes were reported in the last five years between 2019 and 2024 along Cochran Road. Out of 7 crashes, 6 crashes were reported as property damage only and the remaining was an injury crash. A crash report summary is attached to this memo. No pedestrian or bicyclist crashes were reported during this time.



Source: VTrans Public Crash Query Tool Figure 4: 2019 – 2024 Crash Map

Speed Data

Speed data (attached at the end of this report) were collected using an Automatic Traffic Recorder (ATR) at three locations shown in Figure 1. Data were collected between 06/27/2024 and 07/03/2024 at Locations A and C, and between 05/12/2023 and 05/18/2023 in the mid segment (Location B). Figure 5 shows the current speed zones in the vicinity of the project area.

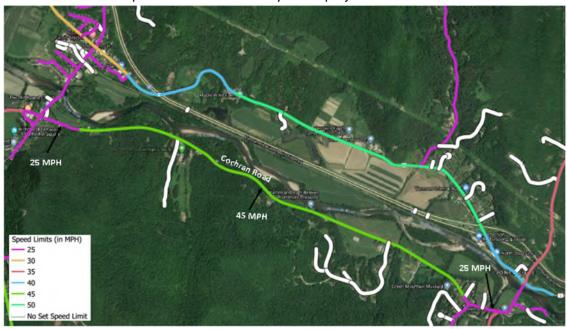


Figure 5: Speed Zone map

Table 1: Speed Data

	Loca	tion A	Loca	tion B	Location C			
	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound		
Average Speed (mph)	41	42	46	53	24	23		
10 mph Pace Speed	36-45	40-49	40-49	45-54	21-30	18-27		
Percent in Pace	68%	58%	71%	67%	78%	75%		
85th Percentile Speed (mph)	44	47	51	53	26	25		

Note that Location A and B are in the 45-mph zone while Location C is in a 25-mph zone. At Location A, the 85th percentile speed was observed as 44 mph in the eastbound direction and 47 mph in the westbound direction. At this location, a majority (85 percent) of drivers are driving at the posted speed limit. At the mid segment of Cochran Road (Location B), the 85th percentile speed was observed as 51 mph for eastbound and 53 mph for the westbound direction. This indicates that 85 percent of motorists traveling at or below 53 mph at this location.

At Location C, the 85th percentile speed was observed as 26 mph in the eastbound and 25 mph in the westbound direction. This indicates that most motorists are traveling at the posted speed limit at this location.

Bike and Pedestrian Data

No pedestrian and bicyclist traffic data were collected for the study area. However, a review of Strava Metro data, a crowd sourcing application where users log their walking, running or biking activity, shows vulnerable road users' traffic on the Cochran Road segment. The walk and bike traffic on Cochran Road varies throughout the year. The peak walk and bike activities were observed from May through August. See the walk and bike users' activity for 2024 from the Strava Metro Data below in Figure 7. Note that the Strava Metro data are limited and not necessarily representative of the population.



Figure 6: Walk and Bike Activity on Strava Metro along Cochran Road



Figure 7: Monthly Walk and Bike activity logged in 2024 on Strava Metro Data

Findings and Recommendations

Cochran Road is paved and no separate facilities for pedestrians and bicyclists are available through the study area. Based on the field survey, speed and crash data analysis, the following safety concerns were identified along the study corridor.

- 1. Motorists are traveling at speeds higher than the posted speed limit at times in the 45-mph zone.
- 2. The lack of a speed transition zone from the 45 mph to 25 mph zone may result in unexpected and potentially dangerous situations for all road users.
- 3. High traffic speeds, lack of adequate marked shoulders and separate bike and ped facilities on Cochran Road could be hazardous for pedestrians and bicyclists.

Based on the field survey, roadway characteristics, land use, walk bike activity and speed data analysis, the following are the low cost and short-term safety improvements that may improve the safety of motorists, pedestrians and cyclists along the study corridor.

- 1. Install a 35-mph speed zone at the western end of Cochran Road beginning from the 25-mph zone to approximately 500 ft east of the Cochran Ski Area access. Similarly install a 35-mph speed zone at the eastern end of Cochran Road beginning from the 25-mph zone to approximately 500 ft west of Greystone Dr. The transition zone provides an opportunity for the driver to be made aware of the need to adjust speed and driving behavior before entering Richmond Village and Jonesville areas.
- 2. Install 6 inches wide fog line maintaining 10 ft wide travel lane in both directions for the study area.
- 3. Install "Reduced Speed Limit 35 Ahead" warning sign (W3-5) at least 150 ft prior to the beginning of the 35-mph speed zone.



4. Install "Reduced Speed Limit 25 Ahead" warning sign (W3-5) at least 150 ft prior to the beginning of the 25-mph speed zone.



5. Install "Bicycle Allowed Use of Full Lane" (R9-20) sign at appropriate locations in both travel directions.



R9-20

6. Install "Bicycle Passing Clearance Sign" (R4-19) with 4 ft minimum clearance at appropriate locations in both travel directions.



R4-19

7. Install a Recreational and Cultural Interest Area Symbol sign (RS-105) supplemented with an arrow sign plaque, as shown below, in both the eastbound and westbound directions approximately 400 ft from the Cochran Ski area driveway.





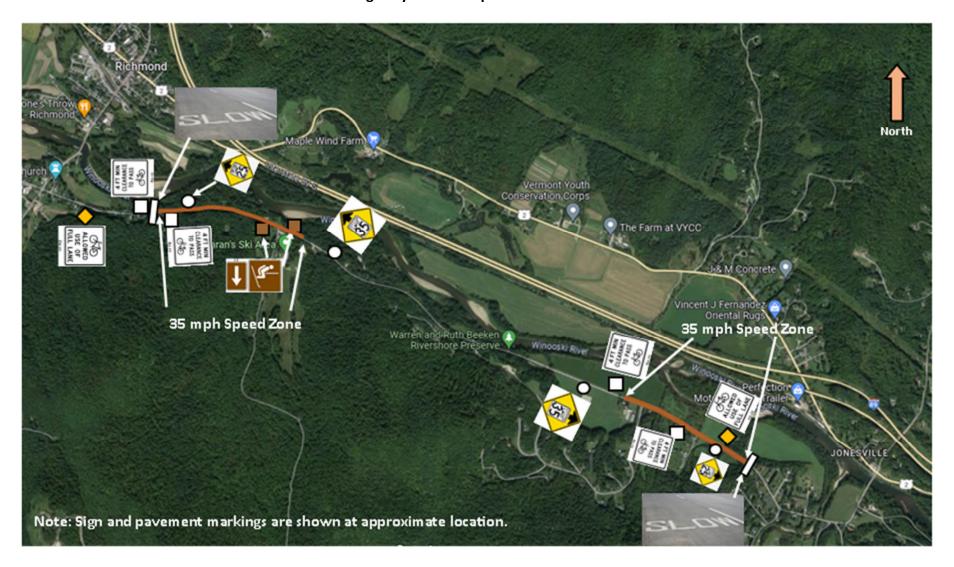
- 8. Collaborate with the local and state law enforcement agencies and conduct recurring safety and speed limit enforcement public outreach activities including safety campaigns at various public and private events.
- 9. Install pavement marking legend "SLOW" in the travel lane in both directions at the 25-mph zone.



The following are the medium and long-term safety improvements that may improve the safety of motorists and cyclists within the corridor.

- Evaluate and consider installation of wider shoulders. Wider shoulders would provide
 additional space for bicyclists and minimum passing clearance for motorists without
 significantly encroaching the opposite travel lane. The wider shoulders would provide a
 recovery area for motorists who lost control and reduce the likelihood of single vehicle crashes.
- 2. Evaluate and consider the appropriateness of long-term traffic calming measures for Cochran Road. The typical traffic calming measures that can be considered includes vertical deflections such as speed tables, speed humps, and horizontal travel lane shifts such as center painted median or flush island.
- 3. Upon implementation of the recommended short-term safety improvements and completion of speed limit enforcement campaign, monitor the traffic conditions and driver's behavior within the corridor. If the results are not satisfactory, then conduct a comprehensive corridor study to further evaluate the safety of all road users.

Attachment A
Sign Layout and Improvements Plan



Attachment B Crash Data

Report Number	Crash Date	Address	Intersection With	Crash Type	Collision Direction	I Weather	Reporting Agency	Actual	Dav	Impairment	llnvolving	Surface Condition
20RM00125	March 12, 2020 at 4:35 PM	2944 Cochran Rd	Greystone Dr	Property Damage Only	Single Vehicle Crash	Cloudy	Richmond PD.	999.99	Day	None	None	Dry
20RM00411	August 15, 2020 at 1:58 PM	3156 Cochran Rd	Wheeler Ln	Injury	Rear End	Clear	Richmond PD.	3.261	Day	None	None	Dry
22A1007748	November 25, 2022 at 2:19 PM	2113-2725 Cochran Rd	Box 2760	Property Damage Only	Single Vehicle Crash	Rain	VSP - A1 Williston	2.969	Day	Alcohol	None	Wet
23A1001528	March 14, 2023 at 7:44 AM	Cochran Road	Cochran Way	Property Damage Only			VSP - A1 Williston	999.99	Day	None	Heavy Truck	
23HB000553	April 20, 2023 at 8:00 AM	2113-2725 Cochran Rd	Greystone Dr	Property Damage Only	Single Vehicle Crash	Clear	Hinesburg PD.	2.589	Day	None	None	Dry
23RM000106	March 16, 2023 at 12:00 AM	Cochran Rd	Cochran Ski School	Property Damage Only	Head On	Cloudy	Richmond PD.	999.99	•	None	None	Dry
24HB000405	March 12, 2024 at 9:36 PM	601-975 Cochran Rd	Cochran Way	Property Damage Only	Single Vehicle Crash	Cloudy	Hinesburg PD.	0.663	Night	None	None	Dry

Attachment C Speed Data



Site Code: RICH32 Location A

RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: West, A to B

6/27/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	> 13 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 33 MPH	> 35 - 40 MPH	MPH	9 45 - 50 MPH	MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM		1011 11	1011 11	1011 11	1	1	1	1	1011 11	1011 11	1011 11	1011 111	> 70 WII 11	10101
12.00 AW		0	0	0	1	1	1	0	0	0	0	0	0	4
		0	0	0	1	0	0	0	0	0	0	0	0	1
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	0	0	0	1	0	0	0	0	0	0	0	1
5:00		0	0	0	0	1	3	0	2	0	0	0	0	6
6:00		0	0	0	0	4	5	4	3	2	0	0	0	18
7:00		1	0	0	2	5	26	11	10	0	0	0	0	55
8:00		1	0	0	2	6	26	15	4	1	0	0	0	55
9:00		0	0	0	1	10	11	9	3	1	1	0	0	36
10:00	1	0	1	0	2	12	16	10	5	1	0	0	0	48
11:00		2	0	0	3	9	13	17	3	0	0	0	0	47
12:00 PM	0	1	1	0	3	10	18	7	3	1	0	0	0	44
1:00	0	4	0	0	2	12	20	7	2	3	0	0	1	51
2:00	2	2	1	0	4	10	21	14	3	0	0	0	0	57
3:00	1	1	0	0	5	12	17	16	3	0	1	0	0	56
4:00	0	3	0	1	4	13	32	18	4	2	0	0	0	77
5:00	2	0	2	0	1	19	23	26	1	1	0	0	0	75
6:00		2	2	1	6	7	15	11	3	0	0	0	0	48
7:00	0	2	0	3	6	10	9	2	4	0	0	0	0	36
8:00	1	3	0	1	6	2	12	5	1	2	0	0	1	34
9:00		0	0	0	0	2	3	2	2	0	0	0	0	9
10:00		0	0	0	1	0	2	3	0	0	0	0	0	6
11:00		0	0	0	0	0	1	1	1	0	0	0	0	3
Total		22	7	6	50	146	274	179	57	14	2	0	2	767



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: West. A to B

6/28/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	1	1	1	1	0	0	0	0	4
5:00	0	0	0	0	0	1	0	2	0	0	1	0	0	4
6:00	0	0	0	2	0	0	6	6	3	1	0	0	0	18
7:00	0	1	0	0	2	9	17	13	4	3	0	0	0	49
8:00	0	0	0	0	3	15	15	20	3	1	0	0	0	57
9:00	1	0	0	0	0	5	21	16	2	2	0	0	0	47
10:00	1	1	0	0	4	13	14	10	2	1	0	0	0	46
11:00	0	2	0	0	3	2	13	15	2	0	0	0	0	37
12:00 PM	0	2	0	0	1	14	20	13	0	1	0	0	0	51
1:00	0	2	1	0	1	2	17	18	8	1	0	0	1	51
2:00	1	5	0	0	2	14	20	15	4	0	0	0	0	61
3:00	3	1	1	1	3	18	23	15	4	0	0	0	0	69
4:00	2	3	1	0	13	30	39	18	2	0	0	0	0	108
5:00	5	7	1	1	8	26	21	18	2	2	0	0	0	91
6:00	0	3	0	2	11	21	20	10	3	0	0	0	0	70
7:00	1	2	0	4	4	15	13	7	4	0	0	0	0	50
8:00	0	0	0	0	3	8	6	12	2	0	0	0	0	31
9:00	0	0	0	0	1	5	7	2	0	0	0	0	0	15
10:00	0	0	0	0	1	0	6	1	2	1	1	0	0	12
11:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	14	29	4	10	61	199	280	212	49	13	2	0	1	874



RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: West A to B

6/29/2024	oi, A IU D	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	1	0	2	1	0	0	0	0	4
6:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
7:00	1	0	0	0	2	3	0	5	4	1	0	0	0	16
8:00	0	0	0	1	1	6	9	8	3	1	0	0	0	29
9:00	0	1	1	0	3	6	12	16	3	1	0	0	0	43
10:00	0	0	0	0	4	11	15	10	2	0	0	0	0	42
11:00	0	0	0	0	1	8	18	13	2	1	0	0	0	43
12:00 PM		0	0	0	2	10	14	13	8	1	0	0	0	48
1:00	0	0	0	0	3	4	13	15	8	0	0	0	0	43
2:00	0	0	0	0	0	3	12	8	2	0	0	0	0	25
3:00	0	0	1	0	0	8	11	7	5	0	0	0	0	32
4:00	0	0	0	0	1	4	13	9	3	1	0	0	0	31
5:00	0	0	0	0	1	2	12	7	4	0	0	0	0	26
6:00	0	0	0	0	0	2	4	15	3	0	0	0	0	24
7:00	0	0	0	0	0	1	4	2	2	0	0	0	0	9
8:00		0	0	0	1	2	4	2	0	0	0	0	0	9
9:00	0	0	0	0	0	4	4	3	0	0	0	0	0	11
10:00	0	0	0	0	1	2	4	1	0	0	0	0	0	8
11:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	1	1	2	1	20	77	151	136	51	6	0	0	0	446



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: West A to B

6/30/2024 Time 0	- 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	0	1	0	0	1	0		0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	(
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	(
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	(
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00	0	0	0	0	1	0	0	0	0	0	0	0	0	
6:00	0	0	0	0	1	0	1	1	0	0	1	0	0	
7:00	0	0	0	1	3	0	4	4	2	0	0	0	0	1
8:00	1	0	0	0	1	4	9	9	1	1	0	0	0	2
9:00	0	4	1	0	4	7	9	1	0	0	0	0	0	2
10:00	3	7	1	0	4	13	16	6	2	0	0	0	1	5
11:00	0	6	2	3	1	7	16	12	1	1	0	0	0	4
12:00 PM	0	3	1	0	8	17	17	5	0	1	0	0	0	5
1:00	0	6	0	1	8	12	17	9	2	0	0	0	0	5
2:00	1	4	0	0	5	14	20	6	3	0	0	0	0	5
3:00	0	5	1	2	7	21	25	11	5	0	0	0	0	7
4:00	3	1	1	1	7	26	29	13	2	0	0	0	0	8
5:00	0	3	0	1	4	22	17	10	3	0	0	0	0	6
6:00	0	3	0	0	4	11	11	13	2	1	0	0	0	4
7:00	0	1	0	1	5	7	8	4	1	0	0	0	0	2
8:00	0	2	0	0	0	2	8	5	2	1	0	0	0	2
9:00	0	0	0	1	0	3	4	1	1	0	0	0	0	1
10:00	0	0	0	0	0	3	1	1	0	0	0	0	0	
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	8	45	7	11	64	169	213	111	27	6	1	0	1	60



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: West, A to B

7/1/2024 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	1	0	0	0	0	2
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00	0	1	0	1	0	0	0	4	0	1	0	0	0	7
6:00	0	0	0	0	1	2	4	5	1	1	0	0	0	14
7:00	0	0	0	0	3	5	13	16	4	0	0	0	0	41
8:00	0	0	0	0	4	7	19	12	6	0	1	0	0	49
9:00	1	1	0	0	4	13	15	20	1	0	0	0	0	55
10:00	0	0	0	1	3	9	20	9	2	0	0	0	0	44
11:00	0	3	0	1	1	7	17	9	5	2	0	0	0	45
12:00 PM	0	3	1	0	0	7	16	17	3	0	0	0	0	47
1:00	0	1	1	2	4	13	17	12	3	0	0	0	0	53
2:00	2	0	0	0	0	8	16	18	3	2	0	0	0	49
3:00	0	4	0	0	3	13	34	16	5	0	0	0	0	75
4:00	0	5	0	0	4	14	25	16	4	0	0	0	0	68
5:00	1	3	0	2	2	15	28	10	2	0	0	0	0	63
6:00	0	6	1	0	6	10	21	24	2	1	0	0	0	71
7:00	1	2	2	2	8	6	11	5	0	0	0	0	0	37
8:00	0	0	1	0	5	10	6	6	6	0	0	0	0	34
9:00	0	0	0	0	0	1	3	1	2	0	0	0	0	7
10:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
11:00	0	0	0	0	0	0	0	1	1	0	0	0	0	2
Total	5	29	6	9	50	142	267	201	51	7	1	0	0	768



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: West A to B

7/2/2024 Time 0 -	15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	1	0		0		0	1
1:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00	0	0	0	0	0	1	2	0	2	0	1	0	0	6
6:00	0	1	0	0	0	2	9	3	2	2	0	0	0	19
7:00	1	1	0	1	5	6	18	15	7	3	0	0	0	57
8:00	0	2	0	1	3	6	17	17	3	2	0	0	0	51
9:00	0	0	0	0	0	6	11	13	6	0	0	0	0	36
10:00	0	0	0	0	4	19	21	15	1	1	0	0	0	61
11:00	0	0	0	0	1	14	28	13	3	0	0	0	0	59
12:00 PM	0	4	0	0	3	15	10	19	5	0	0	0	0	56
1:00	2	1	0	1	2	11	19	22	6	0	0	0	0	64
2:00	0	4	0	0	8	15	24	16	3	0	0	0	0	70
3:00	1	0	2	1	4	17	13	11	2	1	0	0	0	52
4:00	2	0	1	0	4	21	38	12	3	1	0	0	0	82
5:00	1	4	0	1	5	16	23	15	3	1	0	0	0	69
6:00	0	4	1	2	9	13	16	13	1	1	0	0	0	60
7:00	1	3	1	7	16	27	12	5	3	0	0	0	0	75
8:00	0	0	2	1	6	16	15	6	1	0	0	0	0	47
9:00	0	0	0	1	1	2	5	3	1	1	0	0	0	14
10:00	0	0	0	0	0	1	2	1	1	0	0	0	0	5
11:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	8	24	7	16	72	209	283	200	53	14	1	0	0	887



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: West, A to B

7/3/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time 0) - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:00	0	0	0	0	0	3	1	0	1	1	0	0	0	6
6:00	0	0	0	0	0	2	6	2	1	1	0	0	1	13
7:00	0	1	1	2	3	7	11	19	4	0	0	0	0	48
8:00	1	1	0	0	2	4	12	20	5	0	0	0	0	45
9:00	0	2	0	1	0	5	13	11	7	1	0	0	0	40
10:00	0	0	1	0	1	10	13	19	7	1	0	0	0	52
11:00	0	2	0	0	5	11	16	17	1	0	0	0	0	52
12:00 PM	0	4	1	0	8	13	10	20	4	0	0	0	0	60
1:00	0	0	0	1	6	7	19	21	3	1	0	0	0	58
2:00	0	2	1	0	4	6	15	18	1	0	0	0	0	47
3:00	0	3	1	1	4	9	20	17	5	0	0	0	0	60
4:00	0	2	0	0	1	11	30	25	5	1	1	0	0	76
5:00	1	1	2	0	4	12	24	21	3	2	0	1	0	71
6:00	0	2	0	1	2	14	15	8	7	2	0	0	0	51
7:00	0	0	2	0	2	10	17	10	1	0	0	0	0	42
8:00	0	1	0	0	3	5	10	8	0	0	0	0	0	27
9:00	0	0	0	0	1	0	5	4	0	0	0	0	0	10
10:00	0	0	0	0	0	0	1	1	1	0	0	0	0	3
11:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	2	21	9	6	48	130	239	242	57	10	1	1	1	767
Grand Total	46	171	42	59	365	1072	1707	1281	345	70	8	1	5	5172
Stats			Percentile	15th	50th	85th	95th						· ·	

42

47

51

Speed 35 Mean Speed (Average) 41.9 10 MPH Pace Speed 40-49 Number in Pace 3019 Percent in Pace 58.0% Number > 45 MPH 1710 Percent > 45 MPH 33.1%



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: Fast, B to A

6/27/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MDU	Total
	0 - 15 MPH	MPH 0	MPH	MPH 0	MPH	MPH 0	MPH 0	MPH 0	MPH 0	MPH	MPH 0	MPH	> 70 MPH 0	Total
12:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
1:00		0	0	0	0	0	0	0	0	0	0	0	0	0
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	0	1	0	0	0	1	0	0	0	0	0	2
5:00		0	0	0	1	2	1	0	0	0	1	0	0	5
6:00		0	0	1	1	0	3	3	0	0	0	0	0	8
7:00		0	0	0	3	8	12	4	2	0	0	0	0	29
8:00		0	0	0	2	12	19	7	0	0	0	0	0	40
9:00		0	0	1	5	16	13	7	1	0	0	0	0	43
10:00		0	0	1	8	9	16	4	0	1	0	0	0	39
11:00		0	0	0	9	27	19	6	2	0	0	0	0	63
12:00 PM		0	0	3	7	19	23	6	2	0	1	0	0	61
1:00	0	0	0	0	10	18	24	7	1	1	0	0	1	62
2:00	0	0	0	0	6	20	29	4	0	1	0	0	0	60
3:00	0	0	0	0	8	24	17	15	5	0	0	0	1	70
4:00	0	0	0	1	6	32	27	18	3	0	1	0	0	88
5:00	0	1	0	1	7	28	38	23	1	0	0	0	0	99
6:00	1	0	0	1	4	15	12	14	2	1	0	0	0	50
7:00	1	0	0	4	4	10	10	3	0	0	1	0	0	33
8:00		0	0	0	3	6	10	4	0	0	0	0	0	23
9:00		0	1	0	1	3	11	0	0	0	0	0	0	16
10:00		0	0	0	2	1	5	0	0	0	0	0	0	8
11:00		0	0	0	0	0	2	0	0	0	0	0	0	2
Total	2	1	1	14	87	250	291	126	19	4	4	0	2	801



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: Fast, B to A

6/28/2024	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM		0	NIF11	O	O	0	1	NIF11	0		0	IVIE I I	0	10(a)
1:00		0	0	0	0	0	1	0	0	0	0	0	0	1
2:00		0	0	0	0	0	1	0	0	0	0	0	0	0
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	0	0	0	0	1	0	0	0	0	0	0	1
		0	0	0	1	0	1	0	0	1	0	0	1	1
5:00		0	0	0	1	0	ა ი	0	0	1	0	0	1	0
6:00		0	0	0	2	2		1	0	1	0	0	0	0
7:00		0	0	1	8	7	4	5	1	0	0	0	0	26
8:00		0	0	0	5	9	13	8	2	1	0	0	0	38
9:00		0	1	0	9	17	17	6	1	0	0	0	0	51
10:00		0	1	6	9	17	14	5	0	0	0	0	0	52
11:00		0	0	1	13	21	14	10	3	0	0	0	0	62
12:00 PM		0	0	1	4	17	18	8	0	0	0	0	0	48
1:00		1	1	2	3	31	21	9	1	1	0	0	1	71
2:00		0	0	1	8	16	30	11	1	0	0	0	0	67
3:00		1	0	1	5	30	32	16	2	0	0	0	0	89
4:00		0	0	2	11	22	37	15	0	0	0	0	0	88
5:00		1	1	2	15	29	35	8	3	0	0	0	0	95
6:00		0	0	0	6	29	20	6	2	0	0	0	0	63
7:00		0	1	1	12	11	13	6	4	1	1	0	0	50
8:00	0	0	0	2	4	9	13	5	2	0	0	0	0	35
9:00		0	0	0	2	8	13	2	0	0	0	0	0	25
10:00		0	0	0	2	3	2	1	0	0	0	0	0	8
11:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	4	3	5	20	119	279	304	122	22	5	1	0	2	886



RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: East, B to	А
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6/29/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
) - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	2	1	0	0	0	0	0	3
1:00	0	0	0	0	0	1	0	0	0	1	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00	0	0	0	0	0	0	1	2	0	0	0	0	0	3
6:00	0	0	0	0	1	3	0	1	0	1	0	0	0	6
7:00	0	0	0	0	2	5	7	3	0	0	1	0	0	18
8:00	0	0	0	2	1	5	8	2	1	0	0	0	0	19
9:00	0	0	0	4	2	6	10	3	0	0	0	0	0	25
10:00	0	0	0	2	13	12	13	5	1	0	0	0	0	46
11:00	0	0	0	1	3	18	13	2	3	0	0	0	0	40
12:00 PM	0	0	0	2	3	15	12	6	1	0	0	0	0	39
1:00	0	0	0	1	8	13	8	7	1	1	0	0	0	39
2:00	0	0	0	0	3	20	15	6	3	1	0	0	0	48
3:00	0	0	0	0	5	9	12	8	0	0	0	0	0	34
4:00	0	0	0	0	2	8	11	7	1	0	0	0	0	29
5:00	0	0	0	2	2	8	14	6	0	0	0	0	0	32
6:00	0	0	0	1	7	9	10	0	1	0	0	0	0	28
7:00	0	0	0	1	2	3	8	1	0	0	0	0	0	15
8:00	0	0	0	2	1	3	7	4	0	0	0	0	0	17
9:00	0	0	0	1	3	4	0	1	0	0	0	0	0	ç
10:00	0	0	0	1	0	3	2	1	1	0	0	0	0	8
11:00	0	0	0	0	0	2	2	0	0	0	0	0	0	4
Total	0	0	0	20	58	147	156	66	13	4	1	0	0	465



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: Fast B to A

6/30/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	0	2	0	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
6:00	0	0	0	2	0	2	0	0	0	1	0	0	0	5
7:00	0	0	1	0	1	7	4	1	0	0	0	0	0	14
8:00	0	0	0	1	2	7	2	0	0	1	0	0	0	13
9:00	0	1	0	4	11	4	7	1	1	0	0	1	0	30
10:00	1	0	0	4	7	20	14	2	1	0	1	0	0	50
11:00	1	1	0	6	10	17	18	6	0	0	0	0	0	59
12:00 PM	0	0	0	1	8	23	20	8	1	0	0	0	0	61
1:00	1	1	0	1	8	20	17	5	2	0	0	0	0	55
2:00	0	0	0	2	11	28	18	8	1	0	0	0	0	68
3:00	0	0	1	2	6	20	19	8	4	0	0	0	0	60
4:00	1	1	0	2	8	20	17	8	0	2	0	0	0	59
5:00	0	0	0	3	7	19	13	6	1	2	0	0	0	51
6:00	0	0	0	1	6	10	8	1	1	0	0	0	0	27
7:00	0	0	0	1	4	7	6	4	1	1	0	0	0	24
8:00	0	0	0	1	5	9	2	4	1	0	0	0	0	22
9:00		0	0	2	1	3	4	2	1	0	0	0	0	13
10:00		0	0	1	1	2	2	1	0	0	1	0	0	8
11:00		0	0	0	0	1	0	0	1	0	0	0	0	2
Total	4	4	2	34	98	219	174	65	16	7	2	1	0	626



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: Fast, B to A

7/1/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	> 70 MDU	Total
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	0	0	1	0	0	0	0	0	0	0	0	1
1:00		0	0	0	0	0	0	0	0	0	0	0	0	0
2:00		0	0	0	0	0	0	0	1	0	0	0	0	1
3:00		0	0	0	0	0	1	0	0	0	0	0	0	1
4:00		0	0	0	0	0	0	1	0	0	0	0	0	1
5:00		0	0	0	0	3	1	1	1	0	0	0	0	6
6:00		0	0	1	2	4	3	1	0	0	0	0	0	11
7:00		1	0	0	3	10	10	8	0	0	0	0	0	32
8:00		0	1	0	2	11	16	4	2	0	0	0	0	36
9:00		1	0	0	4	15	15	5	1	0	0	0	0	41
10:00		0	0	0	6	20	14	10	0	0	0	0	0	50
11:00		0	0	1	7	12	23	7	2	1	0	0	0	53
12:00 PM		0	0	0	4	25	26	7	2	0	0	0	0	64
1:00	0	0	0	3	8	25	25	8	1	0	0	0	0	70
2:00	0	0	0	0	9	22	30	8	2	0	0	0	0	71
3:00	0	0	0	1	1	32	43	17	0	1	0	0	0	95
4:00	0	1	0	1	9	22	38	13	3	1	0	0	1	89
5:00	0	0	0	1	14	27	38	18	2	1	0	0	0	101
6:00	0	3	3	1	3	17	22	3	0	0	0	0	0	52
7:00	0	0	0	2	5	9	8	5	1	0	0	0	0	30
8:00		0	0	1	3	6	8	3	0	0	0	0	0	21
9:00		0	0	1	3	4	3	0	1	0	0	0	0	12
10:00		0	0	0	0	2	2	1	2	0	0	0	0	7
11:00		0	0	0	0	1	0	1	0	0	0	0	0	2
Total		6	4	13	84	267	326	121	21	4	0	0	1	847



RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

Direction: East P to A

Direction: Eas	t, B to A													
7/2/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	0	0	0	1	0	1	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	2	1	0	0	0	0	3
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	2	2	1	0	1	0	0	0	0	6
6:00	0	0	0	0	2	6	5	1	0	0	0	0	0	14
7:00	0	0	0	1	3	16	10	3	0	0	0	0	0	33
8:00	0	0	0	0	12	24	24	5	1	2	0	0	0	68
9:00	0	0	0	3	8	9	22	6	1	0	0	0	0	49
10:00	0	0	0	2	7	24	10	4	2	0	0	0	1	50
11:00	0	0	0	1	11	25	12	9	2	0	0	0	0	60
12:00 PM		0	0	0	9	35	35	11	0	1	0	0	0	91
1:00	0	0	0	0	4	22	37	10	2	0	0	0	1	76
2:00	0	0	0	4	10	29	37	11	2	1	0	0	0	94
3:00	0	0	0	0	12	24	38	16	3	0	0	0	0	93
4:00	0	0	1	0	6	38	30	11	1	0	0	0	0	87
5:00	0	0	0	4	20	49	40	16	3	0	1	2	0	135
6:00	0	0	0	1	5	19	23	3	1	2	0	0	0	54
7:00	0	0	0	4	8	12	11	5	0	0	0	0	0	40
8:00	0	0	0	0	7	9	5	6	0	0	0	0	0	27
9:00	0	1	0	0	3	4	3	3	0	0	1	0	0	15
10:00	0	0	0	0	0	2	2	1	0	0	0	0	0	5
11:00	0	0	0	0	0	0	3	1	0	0	0	0	0	4
Total	0	1	1	20	129	350	348	125	20	6	2	2	2	1006



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: East. B to A

7/3/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	1	2	0	0	0	0	0	3
5:00	0	0	0	0	1	0	1	1	1	0	0	0	0	4
6:00	0	0	0	2	3	2	3	2	2	0	0	0	0	14
7:00	0	0	0	0	3	7	13	12	1	0	0	0	0	36
8:00	0	0	0	0	11	10	6	6	1	0	0	0	0	34
9:00	0	0	0	2	5	16	14	4	1	0	0	0	0	42
10:00	0	0	0	0	7	22	14	4	2	0	0	0	0	49
11:00	0	0	0	2	4	20	18	4	1	0	0	0	0	49
12:00 PM	0	0	0	0	9	26	23	2	0	0	0	0	0	60
1:00	1	0	0	2	10	30	22	8	2	1	0	0	0	76
2:00	1	1	0	1	6	23	27	9	3	0	0	0	0	71
3:00	0	0	0	1	7	19	32	4	1	0	0	0	0	64
4:00	0	0	0	0	5	29	38	12	3	0	0	0	0	87
5:00	0	0	0	1	8	37	41	14	1	0	0	0	0	102
6:00	0	0	0	0	4	13	20	5	0	0	0	0	0	42
7:00	0	0	0	1	2	9	15	7	1	0	0	0	0	35
8:00	0	0	1	1	8	11	9	2	0	0	0	0	0	32
9:00	0	1	0	1	2	4	4	1	0	0	0	0	0	13
10:00	0	0	0	0	0	3	6	1	0	0	0	0	0	10
11:00	0	0	0	0	1	2	4	2	0	0	0	0	0	9
Total	2	2	1	14	96	283	311	102	20	1	0	0	0	832
Grand Total	12	17	14	135	671	1795	1910	727	131	31	10	3	7	5463
Stats			Percentile	15th	50th	85th	95th							

39

44

48

34 Speed Mean Speed (Average) 40.6 10 MPH Pace Speed 36-45 Number in Pace 3699 Percent in Pace 68.0% Number > 45 MPH 909 Percent > 45 MPH 16.6%

14



RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

6/27/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	1	1	1	0	0	0	0	0	4
1:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	1	0	1	0	1	0	0	0	0	0	3
5:00	0	0	0	0	1	3	4	0	2	0	1	0	0	11
6:00	0	0	0	1	1	4	8	7	3	2	0	0	0	26
7:00	0	1	0	0	5	13	38	15	12	0	0	0	0	84
8:00	0	1	0	0	4	18	45	22	4	1	0	0	0	95
9:00	0	0	0	1	6	26	24	16	4	1	1	0	0	79
10:00	1	0	1	1	10	21	32	14	5	2	0	0	0	87
11:00	0	2	0	0	12	36	32	23	5	0	0	0	0	110
12:00 PM	0	1	1	3	10	29	41	13	5	1	1	0	0	105
1:00	0	4	0	0	12	30	44	14	3	4	0	0	2	113
2:00	2	2	1	0	10	30	50	18	3	1	0	0	0	117
3:00	1	1	0	0	13	36	34	31	8	0	1	0	1	126
4:00	0	3	0	2	10	45	59	36	7	2	1	0	0	165
5:00	2	1	2	1	8	47	61	49	2	1	0	0	0	174
6:00	2	2	2	2	10	22	27	25	5	1	0	0	0	98
7:00	1	2	0	7	10	20	19	5	4	0	1	0	0	69
8:00	1	3	0	1	9	8	22	9	1	2	0	0	1	57
9:00	0	0	1	0	1	5	14	2	2	0	0	0	0	25
10:00	0	0	0	0	3	1	7	3	0	0	0	0	0	14
11:00	0	0	0	0	0	0	3	1	1	0	0	0	0	5
Total	10	23	8	20	137	396	565	305	76	18	6	0	4	1568



RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

6/28/2024 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	1	2	1	1	0	0	0	0	5
5:00	0	0	0	0	1	1	3	2	0	1	1	0	1	10
6:00	0	0	0	2	2	2	8	7	3	2	0	0	0	26
7:00	0	1	0	1	10	16	21	18	5	3	0	0	0	75
8:00	0	0	0	0	8	24	28	28	5	2	0	0	0	95
9:00	1	0	1	0	9	22	38	22	3	2	0	0	0	98
10:00	1	1	1	6	13	30	28	15	2	1	0	0	0	98
11:00	0	2	0	1	16	23	27	25	5	0	0	0	0	99
12:00 PM	0	2	0	1	5	31	38	21	0	1	0	0	0	99
1:00	0	3	2	2	4	33	38	27	9	2	0	0	2	122
2:00	1	5	0	1	10	30	50	26	5	0	0	0	0	128
3:00	5	2	1	2	8	48	55	31	6	0	0	0	0	158
4:00	3	3	1	2	24	52	76	33	2	0	0	0	0	196
5:00	6	8	2	3	23	55	56	26	5	2	0	0	0	186
6:00	0	3	0	2	17	50	40	16	5	0	0	0	0	133
7:00	1	2	1	5	16	26	26	13	8	1	1	0	0	100
8:00	0	0	0	2	7	17	19	17	4	0	0	0	0	66
9:00	0	0	0	0	3	13	20	4	0	0	0	0	0	40
10:00	0	0	0	0	3	3	8	2	2	1	1	0	0	20
11:00	0	0	0	0	0	1	1	0	1	0	0	0	0	3
Total	18	32	9	30	180	478	584	334	71	18	3	0	3	1760



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

6/29/2024 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	2	1	0	0	0		0	(
1:00	0	0	0	0	0	1	0	0	0	1	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	
5:00	0	0	0	0	0	1	1	4	1	0	0	0	0	
6:00	0	0	0	0	1	3	0	1	1	1	0	0	0	
7:00	1	0	0	0	4	8	7	8	4	1	1	0	0	3
8:00	0	0	0	3	2	11	17	10	4	1	0	0	0	4
9:00	0	1	1	4	5	12	22	19	3	1	0	0	0	6
10:00	0	0	0	2	17	23	28	15	3	0	0	0	0	8
11:00	0	0	0	1	4	26	31	15	5	1	0	0	0	8
12:00 PM	0	0	0	2	5	25	26	19	9	1	0	0	0	8
1:00	0	0	0	1	11	17	21	22	9	1	0	0	0	8
2:00	0	0	0	0	3	23	27	14	5	1	0	0	0	7
3:00	0	0	1	0	5	17	23	15	5	0	0	0	0	6
4:00	0	0	0	0	3	12	24	16	4	1	0	0	0	6
5:00	0	0	0	2	3	10	26	13	4	0	0	0	0	Ę
6:00	0	0	0	1	7	11	14	15	4	0	0	0	0	Ę
7:00	0	0	0	1	2	4	12	3	2	0	0	0	0	2
8:00	0	0	0	2	2	5	11	6	0	0	0	0	0	2
9:00	0	0	0	1	3	8	4	4	0	0	0	0	0	2
10:00	0	0	0	1	1	5	6	2	1	0	0	0	0	1
11:00	0	0	0	0	0	2	4	0	0	0	0	0	0	
Total	1	1	2	21	78	224	307	202	64	10	1	0	0	9.



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

6/30/2024 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	2	0	3	0	0	1	0	0	0	6
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	(
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	(
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	(
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	
5:00	0	0	0	0	2	0	0	0	0	0	0	0	0	
6:00	0	0	0	2	1	2	1	1	0	1	1	0	0	
7:00	0	0	1	1	4	7	8	5	2	0	0	0	0	2
8:00	1	0	0	1	3	11	11	9	1	2	0	0	0	3
9:00	0	5	1	4	15	11	16	2	1	0	0	1	0	5
10:00	4	7	1	4	11	33	30	8	3	0	1	0	1	10
11:00	1	7	2	9	11	24	34	18	1	1	0	0	0	10
12:00 PM	0	3	1	1	16	40	37	13	1	1	0	0	0	11
1:00	1	7	0	2	16	32	34	14	4	0	0	0	0	11
2:00	1	4	0	2	16	42	38	14	4	0	0	0	0	12
3:00	0	5	2	4	13	41	44	19	9	0	0	0	0	13
4:00	4	2	1	3	15	46	46	21	2	2	0	0	0	14
5:00	0	3	0	4	11	41	30	16	4	2	0	0	0	11
6:00	0	3	0	1	10	21	19	14	3	1	0	0	0	7
7:00	0	1	0	2	9	14	14	8	2	1	0	0	0	5
8:00	0	2	0	1	5	11	10	9	3	1	0	0	0	4
9:00	0	0	0	3	1	6	8	3	2	0	0	0	0	2
10:00	0	0	0	1	1	5	3	2	0	0	1	0	0	1
11:00	0	0	0	0	0	1	0	0	1	0	0	0	0	
Total	12	49	9	45	162	388	387	176	43	13	3	1	1	12



RICH32: Cochran Rd West of Cochran Way/ Highway 25 Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45 Counters: AM, RP

7/1/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	2	0	0	0	0	3
3:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:00	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:00	0	1	0	1	0	3	1	5	1	1	0	0	0	13
6:00	0	0	0	1	3	6	7	6	1	1	0	0	0	25
7:00	0	1	0	0	6	15	23	24	4	0	0	0	0	73
8:00	0	0	1	0	6	18	35	16	8	0	1	0	0	85
9:00	1	2	0	0	8	28	30	25	2	0	0	0	0	96
10:00	0	0	0	1	9	29	34	19	2	0	0	0	0	94
11:00	0	3	0	2	8	19	40	16	7	3	0	0	0	98
12:00 PM	0	3	1	0	4	32	42	24	5	0	0	0	0	111
1:00	0	1	1	5	12	38	42	20	4	0	0	0	0	123
2:00	2	0	0	0	9	30	46	26	5	2	0	0	0	120
3:00	0	4	0	1	4	45	77	33	5	1	0	0	0	170
4:00	0	6	0	1	13	36	63	29	7	1	0	0	1	157
5:00	1	3	0	3	16	42	66	28	4	1	0	0	0	164
6:00	0	9	4	1	9	27	43	27	2	1	0	0	0	123
7:00	1	2	2	4	13	15	19	10	1	0	0	0	0	67
8:00	0	0	1	1	8	16	14	9	6	0	0	0	0	55
9:00	0	0	0	1	3	5	6	1	3	0	0	0	0	19
10:00	0	0	0	0	0	2	4	1	2	0	0	0	0	ç
11:00	0	0	0	0	0	1	0	2	1	0	0	0	0	4
Total	5	35	10	22	134	409	593	322	72	11	1	0	1	1615



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

7/2/2024 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	1	0	2	0	0	0	0	0	3
1:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	C
3:00	0	0	0	0	0	0	0	2	1	0	0	0	0	3
4:00	0	0	0	0	0	1	0	0	0	0	0	0	0	
5:00	0	0	0	0	2	3	3	0	3	0	1	0	0	12
6:00	0	1	0	0	2	8	14	4	2	2	0	0	0	33
7:00	1	1	0	2	8	22	28	18	7	3	0	0	0	90
8:00	0	2	0	1	15	30	41	22	4	4	0	0	0	119
9:00	0	0	0	3	8	15	33	19	7	0	0	0	0	8
10:00	0	0	0	2	11	43	31	19	3	1	0	0	1	11
11:00	0	0	0	1	12	39	40	22	5	0	0	0	0	11
12:00 PM	0	4	0	0	12	50	45	30	5	1	0	0	0	14
1:00	2	1	0	1	6	33	56	32	8	0	0	0	1	14
2:00	0	4	0	4	18	44	61	27	5	1	0	0	0	16
3:00	1	0	2	1	16	41	51	27	5	1	0	0	0	14
4:00	2	0	2	0	10	59	68	23	4	1	0	0	0	16
5:00	1	4	0	5	25	65	63	31	6	1	1	2	0	20
6:00	0	4	1	3	14	32	39	16	2	3	0	0	0	11
7:00	1	3	1	11	24	39	23	10	3	0	0	0	0	11
8:00	0	0	2	1	13	25	20	12	1	0	0	0	0	7
9:00	0	1	0	1	4	6	8	6	1	1	1	0	0	2
10:00	0	0	0	0	0	3	4	2	1	0	0	0	0	1
11:00	0	0	0	0	0	0	3	1	0	1	0	0	0	
Total	8	25	8	36	201	559	631	325	73	20	3	2	2	189



RICH32: Cochran Rd West of Cochran Way/ Highway 25

Municipality: Richmond Dir 1: WB, Dir 2: EB, Speed Limit: 45

Counters: AM, RP

Direction: Combined

7/3/2024 Time 0 12:00 AM 1:00	0 - 15 MPH 0	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35	> 35 - 40	> 40 - 45	\ /In - hil	> hii - hh					
12:00 AM			IVIPH		MDL	MPH	MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
	U		0		MPH	IVIPT						NPN		Total
1:00	_	0	0	0	0	1	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	1	0	1	3	0	0	0	0	0	5
5:00	0	0	0	0	1	3	2	1	2	1	0	0	0	10
6:00	0	0	0	2	3	4	9	4	3	1	0	0	1	27
7:00	0	1	1	2	6	14	24	31	5	0	0	0	0	84
8:00	1	1	0	0	13	14	18	26	6	0	0	0	0	79
9:00	0	2	0	3	5	21	27	15	8	1	0	0	0	82
10:00	0	0	1	0	8	32	27	23	9	1	0	0	0	101
11:00	0	2	0	2	9	31	34	21	2	0	0	0	0	101
12:00 PM	0	4	1	0	17	39	33	22	4	0	0	0	0	120
1:00	1	0	0	3	16	37	41	29	5	2	0	0	0	134
2:00	1	3	1	1	10	29	42	27	4	0	0	0	0	118
3:00	0	3	1	2	11	28	52	21	6	0	0	0	0	124
4:00	0	2	0	0	6	40	68	37	8	1	1	0	0	163
5:00	1	1	2	1	12	49	65	35	4	2	0	1	0	173
6:00	0	2	0	1	6	27	35	13	7	2	0	0	0	93
7:00	0	0	2	1	4	19	32	17	2	0	0	0	0	77
8:00	0	1	1	1	11	16	19	10	0	0	0	0	0	59
9:00	0	1	0	1	3	4	9	5	0	0	0	0	0	23
10:00	0	0	0	0	0	3	7	2	1	0	0	0	0	13
11:00	0	0	0	0	1	2	5	2	1	0	0	0	0	11
Total	4	23	10	20	144	413	550	344	77	11	1	1	1	1599
Grand Total	58	188	56	194	1036	2867	3617	2008	476	101	18	4	12	10635
Stats			Percentile	15th	50th	85th	95th					<u>-</u>	·	

40

46

49

34 Speed Mean Speed (Average) 41.2 10 MPH Pace Speed 36-45 Number in Pace 6477 Percent in Pace 61.0% Number > 45 MPH 2619 Percent > 45 MPH 24.6%

21

Site Code: COCH MID Station ID:

Location B

Station ID: Location 1: Location 2: Location 3: Location 4:

Direction: Fast, None Specified

Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

5/12/2023	0 45 MDU	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDU	T-4-1
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	1	1	0	0	0	2
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	2	1	0	0	0	0	0	3
5:00	0	0	0	0	0	2	1	5	2	1	0	0	0	11
6:00	0	0	0	0	0	2	4	9	6	2	0	0	0	23
7:00	0	0	0	0	0	6	12	21	9	3	1	0	0	52
8:00	0	1	0	0	0	0	14	39	12	3	0	0	1	70
9:00	0	0	0	0	2	6	21	25	5	3	0	0	0	62
10:00	0	0	0	0	2	2	19	19	12	2	0	1	0	57
11:00	0	0	0	0	1	7	29	23	12	2	0	0	0	74
12:00 PM	0	0	0	0	0	11	26	26	11	3	0	0	0	77
1:00	0	0	1	4	1	3	22	30	12	2	1	0	0	76
2:00	0	0	1	2	0	13	42	53	10	2	1	0	0	124
3:00	0	0	3	0	1	6	37	57	22	3	0	0	1	130
4:00	0	0	2	3	3	11	43	63	26	4	0	0	0	155
5:00	0	0	1	2	0	3	47	54	26	2	1	0	0	136
6:00	0	0	1	0	1	7	39	47	11	3	0	2	0	111
7:00	0	0	0	0	2	1	24	25	12	1	0	0	0	65
8:00	0	0	0	0	1	5	29	25	10	2	1	1	0	74
9:00	0	0	0	0	0	5	9	8	3	0	0	0	1	26
10:00	0	0	0	0	0	2	8	7	2	1	0	0	0	20
11:00	0	0	0	0	0	0	2	1	2	0	0	1	0	6
Total	0	1	9	12	15	92	430	538	206	40	5	5	3	1356

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

5/13/2023	•	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	1	4	4	0	2	0	0	0	11
1:00	0	0	0	0	0	0	0	3	0	0	0	0	0	3
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00	0	0	0	0	0	2	0	2	0	0	0	0	0	4
6:00	0	0	0	0	0	0	1	4	1	2	0	0	0	8
7:00	0	0	0	0	0	0	4	11	7	4	0	0	0	26
8:00	0	1	1	1	1	0	8	23	10	2	1	1	2	51
9:00	0	0	0	0	0	6	25	22	8	2	0	0	0	63
10:00	0	0	4	1	1	9	30	29	10	0	0	0	0	84
11:00	0	0	1	0	3	13	29	33	10	2	0	0	1	92
12:00 PM	1	1	0	0	0	3	34	30	10	1	0	0	0	80
1:00	0	0	1	0	4	8	26	50	14	3	0	0	0	106
2:00	0	0	2	1	0	5	26	44	13	1	0	0	0	92
3:00	0	1	1	0	0	3	20	57	13	3	1	0	0	99
4:00	1	0	0	2	0	5	34	45	17	3	1	0	0	108
5:00	0	1	0	0	0	5	24	31	19	5	1	0	0	86
6:00	0	0	0	0	0	1	14	22	22	5	0	0	0	64
7:00	0	0	0	0	0	4	13	21	5	0	1	1	0	45
8:00	0	0	0	0	1	2	14	15	4	1	0	0	0	37
9:00	0	0	0	0	0	1	9	8	2	2	2	0	0	24
10:00	0	0	0	1	0	1	9	8	5	1	0	0	0	25
11:00	0	0	0	0	0	1	0	5	4	0	0	1	0	11
Total	2	4	10	6	10	70	324	467	176	39	7	3	3	1121

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/14/2023			> 20 2F	> 25 20	> 20 2F	> 25 40	> 10 1F	> 15 FO	> E0 EF	> EE 60	> 60 6F	> 65 - 70		
	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM		0	0	0	1	2	2	1	0	0	1	0	0	7
1:00		0	0	0	0	0	1	4	0	0	0	0	0	5
2:00		0	0	0	0	0	1	0	0	0	0	0	0	1
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	0	0	0	0	0	1	0	0	0	0	0	1
5:00		0	0	0	0	0	0	0	2	0	0	0	0	2
6:00		0	0	0	0	1	0	7	2	1	0	0	0	11
7:00		0	0	0	0	0	3	10	2	1	0	0	0	16
8:00		0	0	0	0	2	5	10	2	1	0	0	0	20
9:00		0	0	0	0	1	18	21	8	2	1	0	0	51
10:00		0	1	1	1	7	15	29	7	3	0	0	0	65
11:00		0	0	0	4	11	27	21	4	0	0	0	0	69
12:00 PM	0	0	0	0	0	1	27	36	13	0	0	0	0	77
1:00		0	1	2	2	2	24	36	8	5	2	0	0	82
2:00		0	0	0	2	5	22	28	18	4	0	0	0	79
3:00		0	2	1	0	0	24	33	19	2	1	0	0	82
4:00	0	0	0	0	0	2	19	34	16	7	2	0	0	80
5:00	0	0	0	1	0	3	19	30	14	4	2	0	0	73
6:00		0	1	1	0	2	14	23	9	2	0	0	0	54
7:00		0	0	0	0	4	14	26	7	1	0	0	0	52
8:00	0	0	0	0	2	1	8	10	6	0	1	0	0	28
9:00	0	0	0	0	0	3	2	13	1	1	0	0	0	20
10:00	0	0	0	0	0	1	1	3	0	0	0	0	0	5
11:00	0	0	0	0	0	0	1	0	0	0	0	1	0	2
Total	5	0	5	6	12	48	247	376	138	34	10	1	0	882

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/15/2023 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	3	1	0	0	0	0	4
1:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
4:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00	0	0	0	0	0	0	2	6	1	1	0	1	0	11
6:00	0	0	0	0	0	2	9	11	4	3	1	0	0	30
7:00	0	0	0	0	0	1	7	19	15	3	0	0	0	45
8:00	1	0	0	0	1	10	23	19	14	2	0	0	0	70
9:00	0	0	0	0	1	1	17	19	13	0	0	0	0	51
10:00	0	0	0	0	0	2	19	21	8	2	0	0	1	53
11:00	0	0	0	0	0	1	19	30	7	1	0	0	0	58
12:00 PM	1	0	1	0	1	4	23	31	12	0	0	0	0	73
1:00	0	0	1	0	0	8	20	29	15	1	0	0	0	74
2:00	0	0	1	0	0	4	36	39	13	3	1	0	0	97
3:00	0	1	1	1	0	10	43	56	15	0	0	0	0	127
4:00	0	1	0	2	5	8	60	58	19	2	0	0	0	155
5:00	0	0	0	2	2	2	53	66	17	3	1	1	1	148
6:00	0	0	0	1	2	8	33	52	6	2	1	0	0	105
7:00	0	1	0	0	3	4	19	38	12	1	0	0	0	78
8:00	0	0	0	0	1	3	14	14	4	3	1	0	0	40
9:00	0	0	0	0	2	2	3	9	2	0	1	0	0	19
10:00	0	0	0	1	0	4	3	3	3	0	0	0	0	14
11:00	0	0	0	0	1	0	2	1	0	0	0	0	0	4
Total	2	3	4	7	19	74	406	524	183	27	6	2	2	1259

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/16/2023	i, None Speci	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	2	0	1	0	0	0	0	0	3
1:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
5:00	0	0	0	0	0	1	3	4	0	4	1	0	0	13
6:00	0	0	0	0	0	2	5	4	8	2	0	0	0	21
7:00	0	0	0	1	2	1	6	26	15	3	1	0	0	55
8:00	1	0	0	1	1	4	28	33	11	0	0	0	0	79
9:00	0	0	0	0	0	2	14	26	4	2	1	0	0	49
10:00	0	0	0	0	1	1	12	14	5	4	0	0	0	37
11:00	0	0	0	0	0	3	10	21	5	2	0	0	0	41
12:00 PM	0	0	0	0	1	1	22	18	6	1	0	0	0	49
1:00	0	0	0	0	0	9	21	22	4	2	0	0	0	58
2:00	0	0	0	0	0	5	23	28	9	2	0	0	0	67
3:00	0	0	0	0	1	8	40	31	8	1	0	0	0	89
4:00	0	0	0	0	1	8	39	58	14	2	1	0	0	123
5:00	0	0	0	0	2	13	54	57	28	2	0	0	0	156
6:00	0	0	0	0	0	2	30	35	13	4	1	0	0	85
7:00	0	0	0	0	1	2	25	26	16	3	0	0	1	74
8:00	0	0	0	0	0	4	17	23	5	2	1	0	0	52
9:00	0	0	0	0	0	1	4	12	6	3	0	0	1	27
10:00	0	0	0	0	0	2	2	8	3	1	0	0	0	16
11:00	0	0	0	0	0	0	1	1	0	1	0	0	0	3
Total	1	0	0	2	10	74	356	448	160	41	6	0	2	1100

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/17/2023	, None Speci	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	1	3	0	0	1	0	0	5
1:00	0	0	0	0	0	1	0	1	1	0	0	0	0	3
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
5:00	0	0	0	0	0	1	3	4	1	1	2	0	0	12
6:00	0	0	0	0	0	2	4	10	4	2	0	0	0	22
7:00	0	1	0	0	0	1	15	24	18	5	0	0	0	64
8:00	0	0	0	0	0	4	20	33	13	3	0	0	0	73
9:00	0	1	0	0	1	6	15	23	5	4	0	0	0	55
10:00	0	0	0	0	0	2	9	17	10	4	0	0	0	42
11:00	0	0	0	0	1	0	10	14	9	1	0	1	0	36
12:00 PM	0	0	0	0	0	8	11	25	13	4	0	0	0	61
1:00	0	0	0	0	0	1	18	28	6	0	1	0	0	54
2:00	0	0	0	0	0	2	25	36	16	2	0	0	0	81
3:00	0	0	1	0	0	2	31	44	17	3	1	0	0	99
4:00	0	0	0	0	1	9	28	65	17	5	0	0	1	126
5:00	0	0	0	0	0	1	28	84	39	4	2	0	1	159
6:00	0	0	0	1	1	3	24	46	21	3	0	0	0	99
7:00	0	0	0	0	0	1	17	33	12	1	0	0	0	64
8:00	0	0	0	0	0	7	23	27	6	1	0	0	0	64
9:00	0	0	0	0	0	1	4	13	5	3	1	0	0	27
10:00	0	0	0	0	0	0	5	5	0	1	0	0	0	11
11:00	0	0	0	0	0	0	2	1	1	0	0	0	0	4
Total	0	2	1	1	4	52	295	536	214	47	8	1	2	1163

Site Code: COCH MID

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

Direction: East, None Specified

5/18/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time C	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	1	1	2	0	0	0	0	0	5
1:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	C
4:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
5:00	0	0	0	0	0	1	1	4	2	1	1	0	1	11
6:00	0	0	0	0	0	0	8	7	10	4	0	0	0	29
7:00	0	0	0	0	1	2	8	29	11	8	1	1	1	62
8:00	0	0	0	0	1	2	9	34	20	0	0	0	0	66
9:00	0	0	0	0	1	4	18	28	10	3	0	0	0	64
10:00	0	2	2	1	2	7	14	22	9	1	0	0	1	6
11:00	0	0	0	0	1	2	13	30	8	5	0	1	0	60
12:00 PM	0	0	0	0	0	15	25	25	10	0	0	0	0	75
1:00	0	0	0	0	0	1	19	38	11	1	1	0	0	7
2:00	0	0	0	0	2	3	21	43	15	7	0	0	0	9
3:00	0	0	0	0	0	4	36	47	17	2	1	1	0	108
4:00	0	1	0	1	3	8	49	72	23	1	0	1	0	159
5:00	0	1	2	1	1	2	34	80	21	8	0	0	1	151
6:00	2	1	1	1	1	7	34	56	13	4	1	0	0	121
7:00	0	0	0	0	0	3	35	39	11	1	1	0	0	90
8:00	0	0	0	0	1	6	21	20	16	3	0	1	0	68
9:00	0	0	0	0	0	8	12	11	10	0	1	1	0	43
10:00	0	0	0	0	0	0	5	2	1	1	0	0	0	ę
11:00	0	0	0	0	0	1	0	3	1	0	0	0	1	(
Total	2	5	5	4	15	78	364	595	219	50	7	6	5	135
Grand Total	12	15	34	38	85	488	2422	3484	1296	278	49	18	17	8236
Stats			Percentile	15th	50th	85th	95th							

46

51

55

 Speed
 42

 Mean Speed (Average)
 46.5

 10 MPH Pace Speed
 40-49

 Number in Pace
 5846

 Percent in Pace
 71.0%

 Number > 45 MPH
 5142

 Percent > 45 MPH
 62.4%

7

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3:

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

Location 4: Direction: West, None Specified

oirection: West, I 5/12/2023	None Spec	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	- 15 MPH	MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 33 MPH	> 35 - 40 MPH	9 40 - 45 MPH	7 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	2	0	0	0	0		2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	2	1	0	0	0	0	0	3
4:00	0	0	0	0	0	1	0	3	2	0	1	0	1	8
5:00	0	0	0	0	0	0	4	8	2	3	0	0	0	17
6:00	0	0	0	0	0	3	20	30	17	4	1	0	0	75
7:00	0	0	0	0	0	4	16	64	45	10	4	0	0	143
8:00	0	0	0	0	0	0	16	38	18	4	2	0	0	78
9:00	0	0	0	0	1	4	28	43	11	2	1	0	0	90
10:00	0	0	0	0	0	10	13	34	11	5	2	0	1	76
11:00	0	0	0	1	0	4	11	25	15	3	1	0	0	60
12:00 PM	0	0	0	0	1	3	10	26	15	3	0	0	0	58
1:00	0	0	0	0	1	0	18	33	18	4	0	0	0	74
2:00	0	0	0	0	1	1	16	35	27	5	0	0	0	85
3:00	0	0	0	2	0	3	18	37	22	5	1	0	0	88
4:00	0	0	0	0	1	5	26	46	17	5	1	0	0	101
5:00	0	0	0	0	1	5	25	39	21	3	2	0	1	97
6:00	0	0	0	0	0	1	15	22	20	3	0	0	0	61
7:00	0	0	0	0	1	5	4	22	12	3	1	0	0	48
8:00	0	0	0	0	0	3	7	10	3	5	1	0	0	29
9:00	0	0	0	0	0	0	6	11	5	1	0	0	0	23
10:00	0	0	0	0	0	1	3	4	1	1	0	0	0	10
11:00	0	0	0	0	0	1	0	1	1	0	0	0	0	3
Total	0	0	0	3	7	55	258	534	283	69	18	0	3	1230

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
5/13/2023 Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	2
1:00	0	0	0	0	0	0	0	3	0	0	0	0	0	3
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	1	0	1	0	0	0	2
4:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
5:00	0	0	0	0	1	1	3	3	2	1	1	0	0	12
6:00	0	0	0	0	0	0	1	5	3	3	0	0	0	12
7:00	0	0	0	1	0	0	6	23	7	6	1	0	0	44
8:00	0	0	0	0	0	1	12	32	17	4	0	0	0	66
9:00	0	0	0	1	3	6	20	35	26	2	0	0	0	93
10:00	0	0	0	0	3	4	18	38	22	3	1	0	0	89
11:00	0	0	0	0	1	2	21	33	16	6	1	0	1	81
12:00 PM	0	0	0	0	0	4	27	46	19	2	0	0	0	98
1:00	0	0	0	0	0	5	21	36	23	5	0	0	0	90
2:00	0	0	0	0	0	9	26	35	11	3	1	0	0	85
3:00	0	0	1	0	0	7	15	26	19	5	0	0	0	73
4:00	0	1	0	0	2	3	11	35	20	6	1	0	0	79
5:00	0	0	0	0	0	2	14	31	20	6	2	0	0	75
6:00	0	0	0	0	2	2	6	17	24	2	0	0	0	53
7:00	0	0	0	0	0	2	6	16	14	1	1	0	0	40
8:00	0	0	0	0	1	1	9	14	2	0	0	0	0	27
9:00	0	0	0	0	0	2	7	4	4	2	0	0	1	20
10:00	0	0	0	0	0	0	0	3	5	0	0	0	0	8
11:00	0	0	0	0	1	0	0	1	1	1	0	0	1	5
Total	0	1	1	2	14	51	224	439	256	59	9	0	3	1059

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/14/2023	t, None Spec	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	2
1:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	1	0	1	0	0	2
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	4	1	2	0	0	0	0	7
6:00	0	0	0	0	0	1	1	5	4	2	0	0	0	13
7:00	0	0	0	0	0	0	3	9	5	1	2	0	0	20
8:00	0	0	0	0	1	4	10	21	6	2	0	1	0	45
9:00	0	0	0	0	0	2	15	30	15	3	3	0	0	68
10:00	0	0	0	0	0	6	19	27	9	3	0	1	1	66
11:00	0	0	0	2	7	14	16	26	6	2	1	3	0	77
12:00 PM	0	0	0	0	1	4	21	39	26	2	0	0	0	93
1:00	0	0	0	0	0	2	12	36	15	3	3	0	0	71
2:00	0	0	1	0	0	2	14	34	18	2	0	0	0	71
3:00	0	0	0	0	0	3	17	25	16	6	0	2	0	69
4:00	0	0	0	0	0	1	15	29	9	6	0	1	0	61
5:00	0	0	0	0	0	1	9	20	10	6	1	0	0	47
6:00	0	0	0	1	0	2	13	25	5	2	0	0	0	48
7:00	0	0	0	0	0	1	6	12	7	5	0	1	0	32
8:00	0	0	0	0	0	0	4	6	4	3	1	0	0	18
9:00	0	0	0	0	0	0	0	1	1	0	0	0	0	2
10:00	0	0	0	0	0	0	1	1	1	1	0	0	0	4
11:00	0	0	0	0	0	0	0	1	0	0	1	0	0	2
Total	0	0	1	3	9	45	181	349	160	49	13	9	1	820

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1:
Comment 2:
Comment 3:
Comment 4:
Latitude: 0.000000
Longitude: 0.000000

5/15/2023 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	3	0	0	0	0	0	3
4:00	0	0	0	0	0	0	1	0	2	1	1	0	0	5
5:00	0	0	0	0	0	0	1	5	7	1	0	0	0	14
6:00	0	0	0	0	1	3	13	41	18	3	1	0	0	80
7:00	0	0	0	0	0	2	23	71	50	17	3	0	1	167
8:00	0	0	0	1	1	3	15	46	28	7	1	0	0	102
9:00	0	0	0	0	0	1	11	30	23	4	0	0	0	69
10:00	0	0	0	0	0	1	10	39	15	2	2	0	0	69
11:00	0	0	0	0	0	4	14	31	19	4	0	0	0	72
12:00 PM	0	0	0	0	0	4	17	24	15	4	1	0	0	65
1:00	0	0	0	0	2	1	9	32	20	1	1	0	0	66
2:00	0	0	0	0	0	2	13	21	19	10	1	0	0	66
3:00	0	0	0	0	0	3	13	37	13	4	1	0	0	71
4:00	0	0	0	0	2	9	14	49	17	12	1	0	0	104
5:00	0	0	0	1	0	1	21	51	23	7	0	0	0	104
6:00	0	0	0	0	1	2	6	25	8	3	1	0	2	48
7:00	0	0	1	0	0	1	10	14	3	5	0	0	0	34
8:00	0	0	0	0	0	0	2	6	4	0	1	0	0	13
9:00	0	0	0	0	0	0	2	2	1	0	0	0	0	5
10:00	0	0	0	0	0	0	0	1	2	0	0	0	0	3
11:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	1	2	7	38	195	528	287	86	15	0	3	1162

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3:

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

Location 4: Direction: West, None Specified

5/16/2023	•	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time 0	- 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1
1:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	2	1	1	0	0	0	0	4
4:00	0	0	0	0	0	0	0	0	3	1	0	0	0	4
5:00	0	0	0	0	1	0	4	4	5	4	1	0	0	19
6:00	0	0	0	0	0	1	11	37	23	8	0	0	0	80
7:00	0	0	0	0	1	1	28	91	65	17	1	0	0	204
8:00	0	0	0	1	0	3	28	40	31	8	0	0	0	111
9:00	0	0	0	0	0	3	15	18	16	4	2	0	0	58
10:00	0	0	0	0	1	3	14	27	11	5	2	0	0	63
11:00	0	0	0	0	0	0	11	29	18	4	0	0	0	62
12:00 PM	0	0	0	0	1	7	10	35	7	5	0	1	0	66
1:00	0	0	0	0	0	1	14	25	17	2	1	0	0	60
2:00	0	0	0	1	0	7	21	28	27	3	0	0	0	87
3:00	0	0	0	0	0	4	21	31	16	4	1	0	0	77
4:00	0	0	0	0	0	3	22	42	17	5	1	0	0	90
5:00	0	0	0	0	0	1	19	38	20	5	1	0	0	84
6:00	0	0	0	0	0	2	8	23	11	3	2	0	0	49
7:00	2	0	0	0	0	0	9	9	1	1	1	0	0	23
8:00	0	0	0	0	0	1	3	9	5	2	0	0	0	20
9:00	0	0	0	0	0	1	2	3	2	1	0	0	0	9
10:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
11:00	0	0	0	0	0	0	1	0	0	2	0	0	0	3
Total	2	0	0	2	4	40	243	492	297	84	13	1	0	1178

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/17/2023	n, rione opeo	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
4:00	0	0	0	0	0	0	0	1	2	1	0	0	0	4
5:00	0	0	0	0	0	0	5	3	5	6	0	0	0	19
6:00	0	0	0	0	0	1	14	38	21	7	1	0	0	82
7:00	0	0	0	0	1	6	41	60	53	8	2	0	1	172
8:00	0	0	0	0	1	7	25	37	21	2	1	0	0	94
9:00	0	0	0	0	0	2	24	35	14	2	1	0	0	78
10:00	0	0	0	0	0	2	17	27	14	1	1	0	0	62
11:00	0	0	0	0	1	5	7	32	10	3	0	0	0	58
12:00 PM	0	0	0	0	1	1	10	27	14	2	0	0	0	55
1:00	0	0	0	0	0	6	17	21	9	4	0	1	1	59
2:00	0	0	0	0	0	3	13	29	24	4	1	0	0	74
3:00	0	0	0	0	0	4	11	36	18	9	0	0	1	79
4:00	0	0	0	0	0	5	12	46	14	4	1	0	0	82
5:00	0	0	0	0	0	2	14	49	29	2	0	0	1	97
6:00	0	0	0	0	1	1	9	18	20	7	3	0	0	59
7:00	0	0	0	0	1	3	3	7	9	3	0	0	0	26
8:00	0	0	0	0	0	2	4	2	6	1	0	0	0	15
9:00	0	0	0	0	0	1	2	2	1	1	0	0	0	7
10:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:00	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	0	0	0	0	6	52	232	471	286	67	11	1	4	1130

Site Code: COCH MID

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

Direction: West, None Specified

5/18/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	(
1:00	0	0	0	0	0	0	1	0	0	0	0	0	0	•
2:00	0	0	0	0	0	1	0	1	0	0	0	0	0	2
3:00	0	0	0	0	0	0	0	2	0	0	0	0	0	2
4:00	0	0	0	0	0	1	0	1	4	2	0	0	0	8
5:00	0	0	0	0	0	0	4	3	6	1	0	1	0	1:
6:00	0	0	0	0	0	2	10	35	24	6	0	1	0	78
7:00	0	0	0	0	0	1	15	88	53	16	6	2	0	18
8:00	0	0	0	0	0	2	16	29	41	10	1	0	0	9
9:00	0	0	0	0	0	1	9	32	19	5	3	0	1	7
10:00	0	0	0	0	1	5	8	37	17	2	1	0	0	7
11:00	0	0	0	0	0	6	9	27	8	4	0	0	0	5
12:00 PM	0	0	0	0	0	1	13	33	10	3	1	0	0	6
1:00	0	0	0	0	0	0	17	32	15	3	3	1	1	7.
2:00	0	0	0	1	0	10	13	33	19	5	0	0	0	8
3:00	0	0	1	3	0	5	19	34	26	2	0	0	0	9
4:00	0	0	0	1	2	6	11	38	24	6	2	0	1	9
5:00	0	0	0	1	0	2	10	45	39	6	5	0	0	10
6:00	0	0	2	0	3	3	11	26	10	6	0	1	0	6
7:00	0	0	0	2	0	2	7	10	9	2	0	0	1	3
8:00	0	0	0	0	0	1	1	12	6	2	0	1	0	2
9:00	0	0	0	0	0	0	4	10	3	1	0	0	0	1
10:00	0	0	0	0	0	0	0	3	0	0	0	0	0	
11:00	0	0	0	0	0	1	0	0	0	1	0	0	0	
Total	0	0	3	8	6	50	178	531	333	83	22	7	4	122
Grand Total	2	1	6	20	53	331	1511	3344	1902	497	101	18	18	780
Stats	•	•	Percentile	15th	50th	85th	95th		•	•				

48

53

57

 Speed
 43

 Mean Speed (Average)
 48.3

 10 MPH Pace Speed
 45-54

 Number in Pace
 5238

 Percent in Pace
 67.1%

 Number > 45 MPH
 5880

 Percent > 45 MPH
 75.3%

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3: Location 4:

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/12/2023	Dirieu	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	0	0	2	0	0	0	0		3
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	1	0	0	1	1	0	0	0	3
3:00	0	0	0	0	0	0	2	1	0	0	0	0	0	3
4:00	0	0	0	0	0	1	2	4	2	0	1	0	1	11
5:00	0	0	0	0	0	2	5	13	4	4	0	0	0	28
6:00	0	0	0	0	0	5	24	39	23	6	1	0	0	98
7:00	0	0	0	0	0	10	28	85	54	13	5	0	0	195
8:00	0	1	0	0	0	0	30	77	30	7	2	0	1	148
9:00	0	0	0	0	3	10	49	68	16	5	1	0	0	152
10:00	0	0	0	0	2	12	32	53	23	7	2	1	1	133
11:00	0	0	0	1	1	11	40	48	27	5	1	0	0	134
12:00 PM	0	0	0	0	1	14	36	52	26	6	0	0	0	135
1:00	0	0	1	4	2	3	40	63	30	6	1	0	0	150
2:00	0	0	1	2	1	14	58	88	37	7	1	0	0	209
3:00	0	0	3	2	1	9	55	94	44	8	1	0	1	218
4:00	0	0	2	3	4	16	69	109	43	9	1	0	0	256
5:00	0	0	1	2	1	8	72	93	47	5	3	0	1	233
6:00	0	0	1	0	1	8	54	69	31	6	0	2	0	172
7:00	0	0	0	0	3	6	28	47	24	4	1	0	0	113
8:00	0	0	0	0	1	8	36	35	13	7	2	1	0	103
9:00	0	0	0	0	0	5	15	19	8	1	0	0	1	49
10:00	0	0	0	0	0	3	11	11	3	2	0	0	0	30
11:00	0	0	0	0	0	1	2	2	3	0	0	1	0	9
Total	0	1	9	15	22	147	688	1072	489	109	23	5	6	2586

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3: Location 4:
Direction: Combined

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/13/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	1	4	5	1	2	0	0	0	13
1:00	0	0	0	0	0	0	0	6	0	0	0	0	0	6
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	1	1	1	0	0	0	3
4:00	0	0	0	0	0	0	1	1	1	0	0	0	0	3
5:00	0	0	0	0	1	3	3	5	2	1	1	0	0	16
6:00	0	0	0	0	0	0	2	9	4	5	0	0	0	20
7:00	0	0	0	1	0	0	10	34	14	10	1	0	0	70
8:00	0	1	1	1	1	1	20	55	27	6	1	1	2	117
9:00	0	0	0	1	3	12	45	57	34	4	0	0	0	156
10:00	0	0	4	1	4	13	48	67	32	3	1	0	0	173
11:00	0	0	1	0	4	15	50	66	26	8	1	0	2	173
12:00 PM	1	1	0	0	0	7	61	76	29	3	0	0	0	178
1:00	0	0	1	0	4	13	47	86	37	8	0	0	0	196
2:00	0	0	2	1	0	14	52	79	24	4	1	0	0	177
3:00	0	1	2	0	0	10	35	83	32	8	1	0	0	172
4:00	1	1	0	2	2	8	45	80	37	9	2	0	0	187
5:00	0	1	0	0	0	7	38	62	39	11	3	0	0	161
6:00	0	0	0	0	2	3	20	39	46	7	0	0	0	117
7:00	0	0	0	0	0	6	19	37	19	1	2	1	0	85
8:00	0	0	0	0	2	3	23	29	6	1	0	0	0	64
9:00	0	0	0	0	0	3	16	12	6	4	2	0	1	44
10:00	0	0	0	1	0	1	9	11	10	1	0	0	0	33
11:00	0	0	0	0	1	1	0	6	5	1	0	1	1	16
Total	2	5	11	8	24	121	548	906	432	98	16	3	6	2180

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3: Location 4:

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/14/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	•	
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	1	2	3	2	0	0	1	0	0	9
1:00	0	0	0	0	0	2	1	4	0	0	0	0	0	7
2:00	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	1	0	1	0	0	2
4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00	0	0	0	0	0	0	4	1	4	0	0	0	0	9
6:00	0	0	0	0	0	2	1	12	6	3	0	0	0	24
7:00	0	0	0	0	0	0	6	19	7	2	2	0	0	36
8:00	0	0	0	0	1	6	15	31	8	3	0	1	0	65
9:00	0	0	0	0	0	3	33	51	23	5	4	0	0	119
10:00	1	0	1	1	1	13	34	56	16	6	0	1	1	131
11:00	2	0	0	2	11	25	43	47	10	2	1	3	0	146
12:00 PM	0	0	0	0	1	5	48	75	39	2	0	0	0	170
1:00	0	0	1	2	2	4	36	72	23	8	5	0	0	153
2:00	0	0	1	0	2	7	36	62	36	6	0	0	0	150
3:00	0	0	2	1	0	3	41	58	35	8	1	2	0	151
4:00	0	0	0	0	0	3	34	63	25	13	2	1	0	141
5:00	0	0	0	1	0	4	28	50	24	10	3	0	0	120
6:00	2	0	1	2	0	4	27	48	14	4	0	0	0	102
7:00	0	0	0	0	0	5	20	38	14	6	0	1	0	84
8:00	0	0	0	0	2	1	12	16	10	3	2	0	0	46
9:00	0	0	0	0	0	3	2	14	2	1	0	0	0	22
10:00	0	0	0	0	0	1	2	4	1	1	0	0	0	g
11:00	0	0	0	0	0	0	1	1	0	0	1	1	0	4
Total	5	0	6	9	21	93	428	725	298	83	23	10	1	1702

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3: Location 4:

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

Direction: Con														
5/15/2023		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	3	1	0	0	0	0	4
1:00	0	0	0	0	0	0	0	0	1	0	0	0	0	1
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	3	1	0	0	0	0	4
4:00	0	0	0	0	0	0	2	0	2	1	1	0	0	6
5:00	0	0	0	0	0	0	3	11	8	2	0	1	0	25
6:00	0	0	0	0	1	5	22	52	22	6	2	0	0	110
7:00	0	0	0	0	0	3	30	90	65	20	3	0	1	212
8:00	1	0	0	1	2	13	38	65	42	9	1	0	0	172
9:00	0	0	0	0	1	2	28	49	36	4	0	0	0	120
10:00	0	0	0	0	0	3	29	60	23	4	2	0	1	122
11:00	0	0	0	0	0	5	33	61	26	5	0	0	0	130
12:00 PM	1	0	1	0	1	8	40	55	27	4	1	0	0	138
1:00	0	0	1	0	2	9	29	61	35	2	1	0	0	140
2:00	0	0	1	0	0	6	49	60	32	13	2	0	0	163
3:00	0	1	1	1	0	13	56	93	28	4	1	0	0	198
4:00	0	1	0	2	7	17	74	107	36	14	1	0	0	259
5:00	0	0	0	3	2	3	74	117	40	10	1	1	1	252
6:00	0	0	0	1	3	10	39	77	14	5	2	0	2	153
7:00	0	1	1	0	3	5	29	52	15	6	0	0	0	112
8:00	0	0	0	0	1	3	16	20	8	3	2	0	0	53
9:00	0	0	0	0	2	2	5	11	3	0	1	0	0	24
10:00	0	0	0	1	0	4	3	4	5	0	0	0	0	17
11:00	0	0	0	0	1	0	2	1	0	1	0	0	0	5
Total	2	3	5	9	26	112	601	1052	470	113	21	2	5	2421

Site Code: COCH MID Station ID: Location 1: Location 2: Location 3: Location 4:
Direction: Combined

Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

5/16/2023	0 45 MB::	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	M	
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	2	0	1	1	0	0	0	0	4
1:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	2	1	1	0	0	0	0	4
4:00	0	0	0	0	0	2	0	0	3	1	0	0	0	6
5:00	0	0	0	0	1	1	7	8	5	8	2	0	0	32
6:00	0	0	0	0	0	3	16	41	31	10	0	0	0	101
7:00	0	0	0	1	3	2	34	117	80	20	2	0	0	259
8:00	1	0	0	2	1	7	56	73	42	8	0	0	0	190
9:00	0	0	0	0	0	5	29	44	20	6	3	0	0	107
10:00	0	0	0	0	2	4	26	41	16	9	2	0	0	100
11:00	0	0	0	0	0	3	21	50	23	6	0	0	0	103
12:00 PM	0	0	0	0	2	8	32	53	13	6	0	1	0	115
1:00	0	0	0	0	0	10	35	47	21	4	1	0	0	118
2:00	0	0	0	1	0	12	44	56	36	5	0	0	0	154
3:00	0	0	0	0	1	12	61	62	24	5	1	0	0	166
4:00	0	0	0	0	1	11	61	100	31	7	2	0	0	213
5:00	0	0	0	0	2	14	73	95	48	7	1	0	0	240
6:00	0	0	0	0	0	4	38	58	24	7	3	0	0	134
7:00	2	0	0	0	1	2	34	35	17	4	1	0	1	97
8:00	0	0	0	0	0	5	20	32	10	4	1	0	0	72
9:00	0	0	0	0	0	2	6	15	8	4	0	0	1	36
10:00	0	0	0	0	0	2	2	10	3	1	0	0	0	18
11:00	0	0	0	0	0	0	2	1	0	3	0	0	0	f
Total	3	0	0	4	14	114	599	940	457	125	19	1	2	2278

Site Code: COCH MID Station ID:

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

	bined	45.00				0.5	40 45	45 50						
5/17/2023	0 45 MBH	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDU	-
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	2	3	0	0	1	0	0	6
1:00	0	0	0	0	0	1	0	1	2	0	0	0	0	4
2:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	1	0	1	0	0	0	0	2
4:00	0	0	0	0	0	0	2	1	2	1	0	0	0	6
5:00	0	0	0	0	0	1	8	7	6	7	2	0	0	31
6:00	0	0	0	0	0	3	18	48	25	9	1	0	0	104
7:00	0	1	0	0	1	7	56	84	71	13	2	0	1	236
8:00	0	0	0	0	1	11	45	70	34	5	1	0	0	167
9:00	0	1	0	0	1	8	39	58	19	6	1	0	0	133
10:00	0	0	0	0	0	4	26	44	24	5	1	0	0	104
11:00	0	0	0	0	2	5	17	46	19	4	0	1	0	94
12:00 PM	0	0	0	0	1	9	21	52	27	6	0	0	0	116
1:00	0	0	0	0	0	7	35	49	15	4	1	1	1	113
2:00	0	0	0	0	0	5	38	65	40	6	1	0	0	155
3:00	0	0	1	0	0	6	42	80	35	12	1	0	1	178
4:00	0	0	0	0	1	14	40	111	31	9	1	0	1	208
5:00	0	0	0	0	0	3	42	133	68	6	2	0	2	256
6:00	0	0	0	1	2	4	33	64	41	10	3	0	0	158
7:00	0	0	0	0	1	4	20	40	21	4	0	0	0	90
8:00	0	0	0	0	0	9	27	29	12	2	0	0	0	79
9:00	0	0	0	0	0	2	6	15	6	4	1	0	0	34
10:00	0	0	0	0	0	0	5	6	0	1	0	0	0	12
11:00	0	0	0	0	0	0	4	1	1	0	0	0	0	6
Total	0	2	1	1	10	104	527	1007	500	114	19	2	6	2293

Site Code: COCH MID

Station ID: Location 1: Location 2: Location 3: Location 4: Comment 1: Comment 2: Comment 3: Comment 4: Latitude: 0.000000 Longitude: 0.000000

Direction: Combined

Time 0 - 15 MPH MPH	5/18/2023	IDII IEU	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
12:00 AM		0 - 15 MPH												> 70 MPH	Total
1:00						1	1	1				0		0	
3:00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0	0	0	0	0	0	1	1	0	0	0	0	0	
4:00 0 0 0 0 1 1 2 4 2 0 0 5:00 0 0 0 0 0 1 5 7 8 2 1 1 6:00 0 0 0 0 0 2 18 42 34 10 0 1 7:00 0 0 0 0 0 1 3 23 117 64 24 7 3 8:00 0 0 0 0 1 4 25 63 61 10 1 0 9:00 0 0 0 0 1 4 25 63 61 10 1 0 9:00 0 0 0 1 1 8 22 57 16 9 0 1 11:00 0 0 0 0 1 1<	2:00	0	0	0	0	0	2	0	2	0	0	0	0	0	
5:00 0 0 0 0 1 5 7 8 2 1 1 6:00 0 0 0 0 2 18 42 34 10 0 1 7:00 0 0 0 0 1 3 23 117 64 24 7 3 8:00 0 0 0 0 1 4 25 63 61 10 1 0 9:00 0 0 0 0 1 5 27 60 29 8 3 0 10:00 0 2 2 1 3 12 22 59 26 3 1 0 11:00 0 0 0 1 8 22 57 16 9 0 1 12:00 0 0 0 0 1 36 70 26	3:00	0	0	0	0	0	0	0	2	0	0	0	0	0	
6:00 0 0 0 0 0 0 0 0 0 0 1 3 2 18 42 34 10 0 1 1 7:00 0 0 0 0 0 1 3 23 117 64 24 7 3 8:00 0 0 0 0 0 1 4 25 63 61 10 1 1 0 9:00 0 0 0 0 0 1 5 27 60 29 8 3 3 0 10:00 0 0 0 0 1 8 22 2 1 3 3 12 22 59 26 3 1 1 0 0 1 1 0 0 1 1:00 0 0 0 0 0 0 1 8 16 38 58 20 3 1 1 0 0 1 1:00 0 0 0 0 0 0 0 1 38 16 21 13 1 1 1 1 1 10 0 1 1 1 1 1:00 0 0 0 0 0 0	4:00	0	0	0	0	0	1	1	2	4	2	0	0	0	•
7:00 0 0 0 0 0 0 1 3 23 117 64 24 7 3 8 8:00 0 0 0 0 0 1 4 25 63 61 10 1 0 1 0 9:00 0 0 0 0 0 1 5 27 60 29 8 3 0 1 0 0 10:00 0 2 2 2 1 1 3 12 22 59 26 3 1 1 0 1 10:00 1 1 0 1 1 0 1 1 0 1 1 1 1	5:00	0	0	0	0	0	1	5	7	8	2	1	1	1	2
7:00 0 0 0 0 0 0 1 3 23 117 64 24 7 3 8 8:00 0 0 0 0 0 1 4 25 63 61 10 1 0 1 0 9:00 0 0 0 0 0 1 5 27 60 29 8 3 0 1 0 0 10:00 0 2 2 2 1 1 3 12 22 59 26 3 1 1 0 1 10:00 1 1 0 1 1 0 1 1 0 1 1 1 1	6:00	0	0	0	0	0	2	18	42	34	10	0	1	0	10
9:00 0 0 0 0 0 1 5 27 60 29 8 3 0 1 0 1 1 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 0 1		0	0	0	0	1	3	23	117	64	24	7	3	1	24
9:00 0 0 0 0 0 1 5 27 60 29 8 3 0 1 0 1 1 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 0 1	8:00	0	0	0	0	1	4	25	63	61	10	1	0	0	16
11:00 0 0 0 0 1 8 22 57 16 9 0 1 12:00 PM 0 0 0 0 16 38 58 20 3 1 0 1:00 0 0 0 0 1 36 70 26 4 4 1 2:00 0 0 0 1 2 13 34 76 34 12 0 0 3:00 0 0 1 3 0 9 55 81 43 4 1 1 4:00 0 1 0 2 5 14 60 110 47 7 2 1 5:00 0 1 2 2 1 4 44 125 60 14 5 0 6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0		0	0	0	0	1	5	27	60	29	8	3	0	1	13
12:00 PM 0 0 0 0 0 0 16 38 58 20 3 1 0 1 0 1:00 0 0 0 0 1 36 38 58 20 3 1 0 0 1:00 0 0 0 0 1 36 70 26 4 4 4 1 1 2:00 0 0 3:00 0 0 1 2 13 34 76 34 12 0 0 0 0 3:00 0 1 3:00 0 1 3 3 0 9 55 81 43 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10:00	0	2	2	1	3	12	22	59	26	3	1	0	1	1:
1:00 0 0 0 0 1 36 70 26 4 4 1 2:00 0 0 0 1 2 13 34 76 34 12 0 0 3:00 0 0 1 3 0 9 55 81 43 4 1 1 4:00 0 1 0 2 5 14 60 110 47 7 2 1 5:00 0 1 2 2 1 4 44 125 60 14 5 0 6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 0 0 0 8 16 21 13 1 1 1 1 10:00 0	11:00	0	0	0	0	1	8	22	57	16	9	0	1	0	1
2:00 0 0 0 1 2 13 34 76 34 12 0 0 3:00 0 0 1 3 0 9 55 81 43 4 1 1 4:00 0 1 0 2 5 14 60 110 47 7 2 1 5:00 0 1 2 2 1 4 44 125 60 14 5 0 6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0	12:00 PM	0	0	0	0	0	16	38	58	20	3	1	0	0	1;
3:00 0 0 1 3 0 9 55 81 43 4 1 1 4:00 0 1 0 2 5 14 60 110 47 7 2 1 5:00 0 1 2 2 1 4 44 125 60 14 5 0 6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 0 1 7 22 32 22 5 0 2 9:00 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 <td>1:00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>36</td> <td>70</td> <td>26</td> <td>4</td> <td>4</td> <td>1</td> <td>1</td> <td>1</td>	1:00	0	0	0	0	0	1	36	70	26	4	4	1	1	1
4:00 0 1 0 2 5 14 60 110 47 7 2 1 5:00 0 1 2 2 1 4 44 125 60 14 5 0 6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 0 1 7 22 32 22 5 0 2 9:00 0 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 0 2 0 3 1 1 0 0 11:00 0 0 0	2:00	0	0	0	1	2	13	34	76	34	12	0	0	0	1
5:00 0 1 2 2 1 4 44 125 60 14 5 0 6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 1 7 22 32 22 5 0 2 9:00 0 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126	3:00	0	0	1	3	0	9	55	81	43	4	1	1	0	1
6:00 2 1 3 1 4 10 45 82 23 10 1 1 7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 1 7 22 32 22 5 0 2 9:00 0 0 0 0 8 16 21 13 1 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	4:00	0	1	0	2	5	14	60	110	47	7	2	1	1	2
7:00 0 0 0 2 0 5 42 49 20 3 1 0 8:00 0 0 0 1 7 22 32 22 5 0 2 9:00 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	5:00	0	1	2	2	1	4	44	125	60	14	5	0	1	2
8:00 0 0 0 0 1 7 22 32 22 5 0 2 9:00 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	6:00	2	1	3	1	4	10	45	82	23	10	1	1	0	1
9:00 0 0 0 0 8 16 21 13 1 1 1 10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	7:00	0	0	0	2	0	5	42	49	20	3	1	0	1	1
10:00 0 0 0 0 0 5 5 1 1 0 0 11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	8:00	0	0	0	0	1	7	22	32	22	5	0	2	0	
11:00 0 0 0 0 2 0 3 1 1 0 0 Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	9:00	0	0	0	0	0	8	16	21	13	1	1	1	0	
Total 2 5 8 12 21 128 542 1126 552 133 29 13 Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	10:00	0	0	0	0	0	0	5	5	1	1	0	0	0	
Grand Total 14 16 40 58 138 819 3933 6828 3198 775 150 36	11:00	0	0	0		0	2	0	3	1	1	0	0	1	
	Total	2		8	12		128	542	1126	552	133	29	13		25
Stats Percentile 15th 50th 85th 95th	Frand Total	14	16	40	58	138	819	3933	6828	3198	775	150	36	35	160
Otato i Crochile 15th 55th 55th 55th	Stats		•	Percentile	15th	50th	85th	95th		•		•			

47

52

56

 Speed
 43

 Mean Speed (Average)
 47.4

 10 MPH Pace Speed
 40-49

 Number in Pace
 10641

 Percent in Pace
 66.3%

 Number > 45 MPH
 11021

 Percent > 45 MPH
 68.7%



Site Code: RICH31 Location C

RICH31: Cochran Rd West of Wheeler Ln Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: West. A to B

6/27/2024		- 15 20	- 20 25	- 2F 2O	- 20 25	- 2F 4C	- 10 15	- 4E EO	. FO FF	- FF 60	- 60 GF	- CE 70		
	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM		IVIFII	101511	0	IVIFIT	0	0	0	NIFT 0	IVIFIT	NIFT 0	IVIFIT	> 70 WIFTI	10tai
		1	1	0	0	0	0	0	0	0	0	0	0	2
1:00		2	0	0	0	0	0	0	0	0	0	0	0	2
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	1	0	0	0	0	0	0	0	0	0	0	1
5:00		0	2	1	0	0	0	0	0	0	0	0	0	3
6:00		0	9	5	1	1	0	0	0	0	0	0	0	16
7:00		12	22	2	1	1	0	0	0	0	0	0	0	38
8:00		5	30	8	0	0	0	0	0	0	0	0	0	45
9:00	3	7	11	5	0	0	0	0	0	0	0	0	0	26
10:00	0	7	26	8	0	0	0	0	0	0	0	0	0	41
11:00	1	6	16	4	1	1	0	0	0	0	0	0	0	29
12:00 PM	2	7	24	7	3	0	0	0	0	0	0	0	0	43
1:00	5	8	28	6	1	0	0	0	0	0	0	0	0	48
2:00	1	10	26	11	0	0	0	0	0	0	0	0	0	48
3:00		15	25	14	2	0	0	0	0	0	0	0	0	59
4:00		9	46	16	5	0	0	0	0	0	0	0	0	79
5:00		7	31	13	2	1	0	0	0	0	0	0	0	57
6:00		7	30	7	1	0	0	0	0	0	0	0	0	50
7:00		3	18	6	1	0	0	0	0	0	0	0	0	31
8:00		5	10	5	1	0	0	0	0	0	0	0	0	21
9:00		0	5	9	0	0	0	0	0	0	0	0	0	14
10:00		1	10	0	0	0	1	0	0	0	0	0	0	12
11:00		0	2	0	0	0	0	0	0	0	0	0	0	2
Total		112	373	127	19	4	1	0	0	0	0	0	0	667



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: West, A to B

6/28/2024	AIUB	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	- 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	3	1	0	0	0	0	0	0	0	0	0	4
5:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00	0	2	6	3	0	0	0	0	0	0	0	0	0	11
7:00	3	4	22	5	0	0	0	0	0	0	0	0	0	34
8:00	4	3	33	10	1	0	0	0	0	0	0	0	0	51
9:00	2	5	21	7	0	0	0	0	0	0	0	0	0	35
10:00	2	6	19	5	0	1	0	0	0	0	0	0	0	33
11:00	1	7	18	6	1	0	0	0	0	0	0	0	0	33
12:00 PM	1	3	31	14	2	0	0	0	0	0	0	0	0	51
1:00	2	8	27	5	5	1	0	0	0	0	0	0	0	48
2:00	3	7	36	9	0	1	0	0	0	0	0	0	0	56
3:00	3	14	46	14	1	0	0	0	0	0	0	0	0	78
4:00	9	12	40	24	3	0	0	0	0	0	0	0	0	88
5:00	2	7	42	13	3	1	0	0	0	0	0	0	0	68
6:00	2	6	22	11	1	1	1	0	0	0	0	0	0	44
7:00	0	8	19	6	0	0	0	0	0	0	0	0	0	33
8:00	1	6	11	6	0	0	0	0	0	0	0	0	0	24
9:00	0	0	15	8	0	0	0	0	0	0	0	0	0	23
10:00	0	0	0	3	2	0	0	0	0	0	0	0	0	5
11:00	0	0	3	2	2	0	0	0	0	0	0	0	0	7
Total	35	98	416	153	21	5	1	0	0	0	0	0	0	729



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: West, A to B

Time 0 - 15 MPH	6/29/2024	oi, A IU D	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
12:00 AM		0 - 15 MPH		MPH										> 70 MPH	Total
2:00	12:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	2
3:00	1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 0 0 1 0	2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 0 0 3 0	3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 0 1 3 1 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0	4:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:00 2 1 8 1 0	5:00	0	0	3	0	0	0	0	0	0	0	0	0	0	3
8:00 1 3 16 4 0 1 0 <td>6:00</td> <td>0</td> <td>1</td> <td>3</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>5</td>	6:00	0	1	3	1	0	0	0	0	0	0	0	0	0	5
9:00	7:00	2	1	8	1	0	0	0	0	0	0	0	0	0	12
10:00 2 11 29 6 0 1 0 </td <td>8:00</td> <td>1</td> <td>3</td> <td>16</td> <td>4</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>25</td>	8:00	1	3	16	4	0	1	0	0	0	0	0	0	0	25
11:00	9:00	0	4	18	4	3	0	0	0	0	0	0	0	0	29
12:00 PM 1 9 20 10 0	10:00	2	11	29	6	0	1	0	0	0	0	0	0	0	49
1:00 1 5 20 10 4 0 <td>11:00</td> <td>4</td> <td>9</td> <td>17</td> <td>4</td> <td>2</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>36</td>	11:00	4	9	17	4	2	0	0	0	0	0	0	0	0	36
2:00 2 4 19 7 2 1 0 <td>12:00 PM</td> <td>1</td> <td>9</td> <td>20</td> <td>10</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>40</td>	12:00 PM	1	9	20	10	0	0	0	0	0	0	0	0	0	40
3:00 1 2 19 8 0 <td>1:00</td> <td>1</td> <td>5</td> <td>20</td> <td>10</td> <td>4</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>40</td>	1:00	1	5	20	10	4	0	0	0	0	0	0	0	0	40
4:00 0 2 15 13 1 0 <td>2:00</td> <td>2</td> <td>4</td> <td>19</td> <td>7</td> <td>2</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>35</td>	2:00	2	4	19	7	2	1	0	0	0	0	0	0	0	35
5:00 2 3 18 6 0 <td>3:00</td> <td>1</td> <td>2</td> <td>19</td> <td>8</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>30</td>	3:00	1	2	19	8	0	0	0	0	0	0	0	0	0	30
6:00 0 4 18 6 0 <td>4:00</td> <td>0</td> <td>2</td> <td>15</td> <td>13</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>31</td>	4:00	0	2	15	13	1	0	0	0	0	0	0	0	0	31
7:00 1 0 6 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5:00	2	3	18	6	0	0	0	0	0	0	0	0	0	29
8:00 0 3 5 3 0	6:00	0	4	18	6	0	0	0	0	0	0	0	0	0	28
9:00 0 2 5 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10:00 0 1 4 4 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	7:00	1	0	6	0	1	0	0	0	0	0	0	0	0	8
10:00 0 1 4 4 0 1 0 0 0 0 0 0 0 11:00 1 0 1 2 0 0 0 0 0 0 0 0 0	8:00	0	3	5	3	0	0	0	0	0	0	0	0	0	11
11:00 1 0 1 2 0 0 0 0 0 0 0 0	9:00	0	2	5	1	1	0	0	0	0	0	0	0	0	9
	10:00	0	1	4	4	0	1	0	0	0	0	0	0	0	10
Total 18 64 246 92 14 4 0 0 0 0 0 0 0 0	11:00	1	0	1	2	0	0	0	0	0	0	0	0	0	4
	Total	18	64	246	92	14	4	0	0	0	0	0	0	0	438



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: West. A to B

6/30/2024 Time	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM		1	2	1	0	1	0	0	0	0	0	0	0	6
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00	0	0	6	1	1	0	0	0	0	0	0	0	0	8
7:00	0	1	5	0	1	0	0	0	0	0	0	0	0	7
8:00	3	1	10	2	1	0	0	0	0	0	0	0	0	17
9:00	3	5	16	2	0	0	0	0	0	0	0	0	0	26
10:00	7	5	28	5	2	0	1	0	0	0	1	0	0	49
11:00	2	13	32	15	2	1	0	0	0	0	0	0	0	65
12:00 PM	4	23	51	10	2	0	0	0	0	0	0	0	0	90
1:00	3	10	35	11	2	0	0	0	0	0	0	0	0	61
2:00		18	32	17	0	0	0	0	0	0	0	0	0	72
3:00	6	18	29	10	1	0	0	0	0	0	0	0	0	64
4:00	9	32	27	5	0	0	0	0	0	0	0	0	1	74
5:00	7	18	21	2	1	1	0	0	0	0	0	0	1	51
6:00	1	4	13	6	1	1	0	0	0	0	0	0	0	26
7:00	1	6	12	5	0	0	1	0	0	0	0	0	0	25
8:00		3	8	1	0	0	0	0	0	0	0	0	0	12
9:00		1	9	0	0	0	0	0	0	0	0	0	0	10
10:00		0	1	2	0	0	0	0	0	0	0	0	0	4
11:00		0	2	0	0	0	0	0	0	0	0	0	0	2
Total	53	159	341	96	14	4	2	0	0	0	1	0	2	672



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Latitude: 44.381379

Longitude: -72.943263

Direction: West A to B

Direction: Wes														
7/1/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		1	0	0	0	0	0	0	0	0	1	0	0	2
1:00		0	1	0	0	0	0	0	0	0	0	0	0	1
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	1	0	0	0	0	0	0	0	0	0	0	1
5:00	0	0	3	0	0	0	0	0	0	0	0	0	0	3
6:00	1	3	4	1	0	0	0	0	0	0	0	0	0	9
7:00	3	11	13	4	0	0	0	0	0	0	0	0	0	31
8:00	3	7	17	6	1	1	1	0	0	0	0	0	0	36
9:00	2	11	16	3	0	0	0	0	0	0	0	0	0	32
10:00	6	14	19	3	0	0	0	0	0	0	0	0	0	42
11:00	2	5	21	4	0	0	0	0	0	0	0	0	0	32
12:00 PM	4	11	24	8	1	0	0	0	0	0	0	0	0	48
1:00	6	12	25	8	0	0	0	0	0	0	0	0	0	51
2:00	10	9	36	9	1	1	0	0	0	0	0	0	0	66
3:00	6	16	36	6	4	1	0	0	0	0	0	0	0	69
4:00	3	10	36	10	2	1	0	0	0	0	0	0	0	62
5:00	4	8	36	18	0	1	0	0	0	0	0	0	0	67
6:00	2	8	28	5	0	0	0	0	0	0	0	0	0	43
7:00	3	3	15	1	1	2	0	0	0	0	0	0	0	25
8:00	2	2	9	3	1	0	0	0	0	0	0	0	0	17
9:00		2	4	1	0	1	0	0	0	0	0	0	0	8
10:00		0	1	0	0	1	0	0	0	0	0	0	0	2
11:00		0	1	2	0	0	0	0	0	0	0	0	0	3
Total		133	346	92	11	9	1	0	0	0	1	0	0	650



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: West, A to B

Direction, wes	st, A to b													
7/2/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00	0	0	5	0	0	0	0	0	0	0	0	0	0	5
6:00	1	1	7	3	1	1	0	0	0	0	0	0	0	14
7:00	5	4	21	8	0	0	0	0	0	0	0	0	0	38
8:00	0	5	24	8	0	0	0	1	0	0	0	0	0	38
9:00	3	4	20	4	1	0	0	0	0	0	0	0	0	32
10:00	3	6	28	7	1	0	0	0	0	0	0	0	0	45
11:00	1	10	24	9	0	0	0	0	0	0	0	0	0	44
12:00 PM	2	4	27	9	2	0	1	0	0	0	0	0	0	45
1:00	4	8	24	11	1	0	0	0	0	0	0	0	0	48
2:00	6	6	36	8	1	0	0	0	0	0	0	0	0	57
3:00	3	12	32	8	2	0	0	0	0	0	0	0	0	57
4:00	11	14	41	13	5	0	1	0	0	0	0	0	0	85
5:00	1	12	46	20	3	2	0	2	0	0	0	0	0	86
6:00	5	6	28	8	3	1	0	0	0	0	0	0	0	51
7:00	8	9	17	10	0	0	0	0	0	0	1	0	0	45
8:00	1	4	15	4	0	0	0	0	0	0	0	0	0	24
9:00	0	2	10	2	1	0	0	0	0	0	0	0	0	15
10:00	0	0	2	2	0	0	0	0	0	0	0	0	0	4
11:00	0	0	1	0	0	0	0	0	1	0	0	0	0	2
Total	54	107	412	134	21	4	2	3	1	0	1	0	0	739



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: West, A to B

7/3/2024	•	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDU	T ()
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1
1:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00	0	0	3	0	0	0	0	0	0	0	0	0	0	3
6:00	0	2	8	1	0	0	1	0	0	0	0	0	0	12
7:00	4	9	24	6	0	0	0	0	0	0	0	0	0	43
8:00	1	0	15	6	1	0	0	0	0	0	0	0	0	23
9:00	2	6	21	4	2	0	0	0	0	0	0	0	0	35
10:00	1	14	28	3	0	1	0	0	0	0	0	0	0	47
11:00	4	9	22	2	0	0	0	0	0	0	0	0	0	37
12:00 PM	6	11	27	6	0	0	0	0	0	0	0	0	0	50
1:00	3	17	26	5	2	0	0	0	0	0	0	0	0	53
2:00	9	12	20	10	0	0	0	0	0	0	0	0	0	51
3:00	6	16	33	10	3	0	0	0	0	0	0	0	0	68
4:00	9	20	30	12	0	1	0	0	0	0	0	0	0	72
5:00	8	19	31	8	2	0	1	0	0	0	0	0	0	69
6:00	5	10	19	6	1	0	1	0	0	0	0	0	0	42
7:00	2	3	16	4	1	0	0	0	0	0	0	0	0	26
8:00	2	3	8	2	1	0	0	0	0	0	0	0	0	16
9:00	0	1	8	4	0	0	0	0	0	0	0	0	0	13
10:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
11:00	0	1	0	1	1	0	0	0	0	0	0	0	0	3
Total	62	154	347	90	15	2	3	0	0	0	0	0	0	673
Grand Total	310	827	2481	784	115	32	10	3	1	0	3	0	2	4568
Stats			Percentile	15th	50th	85th	95th							

21

25

28

 Speed
 18

 Mean Speed (Average)
 22.6

 10 MPH Pace Speed
 18-27

 Number in Pace
 3428

 Percent in Pace
 75.0%

 Number > 25 MPH
 950

 Percent > 25 MPH
 20.8%



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Fast, B to A

6/27/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2
5:00	0	1	4	3	0	1	0	0	0	0	0	0	0	9
6:00	0	0	11	3	0	0	0	0	0	0	0	0	0	14
7:00	1	5	18	10	0	0	0	0	0	0	0	0	0	34
8:00	1	5	24	11	1	0	0	0	0	0	0	0	0	42
9:00	1	7	22	9	2	1	0	0	0	0	0	0	0	42
10:00	1	5	19	7	0	0	0	0	0	0	0	0	0	32
11:00	3	6	30	11	3	1	0	0	0	0	0	0	0	54
12:00 PM	0	5	23	14	1	0	0	0	0	0	0	0	0	43
1:00	0	10	27	17	2	1	0	0	0	0	0	0	0	57
2:00	1	12	24	11	1	0	0	0	0	0	0	0	0	49
3:00	1	9	32	13	4	1	0	0	0	0	0	0	0	60
4:00	2	8	39	22	2	1	0	0	0	0	0	0	0	74
5:00	1	12	34	21	8	0	0	0	0	0	0	0	0	76
6:00	0	9	21	12	2	0	0	0	0	0	0	0	0	44
7:00	0	5	13	3	2	0	0	0	0	0	0	0	0	23
8:00	0	4	10	6	1	0	0	0	0	0	0	0	0	21
9:00	0	4	7	5	0	0	0	0	0	0	0	0	0	16
10:00	0	0	2	4	2	0	0	0	0	0	0	0	0	8
11:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
Total	12	107	362	183	33	6	0	0	0	0	0	0	0	703



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Fast B to A

6/28/2024	, D to A	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
5:00	0	3	6	3	0	0	0	0	0	0	0	0	0	12
6:00	0	1	7	3	0	0	0	0	0	0	0	0	0	11
7:00	2	4	20	5	4	1	0	0	0	0	0	0	0	36
8:00	0	5	17	10	3	0	0	0	0	0	0	0	0	35
9:00	1	5	25	13	5	0	0	0	0	0	0	0	0	49
10:00	0	8	25	11	1	0	0	0	0	0	0	0	0	45
11:00	3	5	30	17	1	0	0	0	0	0	0	0	0	56
12:00 PM	0	4	25	14	2	0	0	0	0	0	0	0	0	45
1:00	0	7	28	15	2	2	0	0	0	0	0	0	1	55
2:00	2	7	28	14	2	0	0	0	0	0	0	0	0	53
3:00	2	11	36	24	1	0	0	0	0	0	0	0	0	74
4:00	4	8	31	16	10	2	0	0	0	0	0	0	0	71
5:00	0	9	35	21	9	1	0	0	0	0	0	0	0	75
6:00	1	6	18	22	5	0	0	0	0	0	0	0	0	52
7:00	0	3	23	12	2	1	0	0	0	0	0	0	0	41
8:00	1	3	20	8	0	0	0	0	0	0	0	0	0	32
9:00	0	1	11	6	1	0	0	0	0	0	0	0	0	19
10:00	0	1	3	3	0	0	0	0	0	0	0	0	0	7
11:00	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Total	16	91	390	221	49	7	0	0	0	0	0	0	1	775



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Fast, B to A

6/29/2024	0 - 15 MPH	> 15 - 20 MPH	> 20 - 25 MPH	> 25 - 30 MPH	> 30 - 35 MPH	> 35 - 40 MPH	> 40 - 45 MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	> 60 - 65 MPH	> 65 - 70 MPH	> 70 MPH	Total
		0	IVIFII	IVIFIT	IVIFIT	0	0	0	NIFT 0	NIFT 0	NIFT 0	IVIFIT	> 70 WFH	10tai
12:00 AM 1:00		0	1	1	1	0	0	0	0	0	0	0	0	3
		0	1	1	0	0	0	0	0	0	0	0	0	2
2:00		0	0	0	0	0	0	0	0	0	0	0	0	C
3:00		0	0	0	0	0	0	0	0	0	0	0	0	U
4:00		0	0	0	1	0	0	0	0	0	0	0	0	1
5:00		1	2	3	0	0	0	0	0	0	0	0	0	6
6:00		0	4	1	0	0	0	0	0	0	0	0	0	5
7:00		0	7	8	1	0	0	0	0	0	0	0	0	16
8:00		4	11	8	1	0	0	0	0	0	0	0	0	26
9:00		4	20	4	0	0	0	0	0	0	0	0	0	28
10:00		5	25	10	2	1	0	0	0	0	0	0	0	43
11:00		8	15	6	2	0	0	0	0	0	0	0	0	33
12:00 PM		4	21	11	4	1	0	0	0	0	0	0	0	43
1:00		2	11	15	0	1	0	0	0	0	0	0	1	30
2:00		4	20	15	4	0	0	0	0	0	0	0	0	43
3:00	0	4	8	16	1	3	0	0	0	0	0	0	0	32
4:00	0	4	11	8	3	0	0	0	0	0	0	0	0	26
5:00	0	4	12	16	2	0	0	0	0	0	0	0	0	34
6:00	2	2	15	11	0	0	0	0	0	0	0	0	0	30
7:00	0	0	11	7	1	0	0	0	0	0	0	0	0	19
8:00	0	0	8	1	1	0	0	0	0	0	0	0	0	10
9:00		1	3	2	0	0	0	0	0	0	0	0	0	7
10:00	0	1	4	3	0	0	0	0	0	0	0	0	0	8
11:00		1	2	1	0	0	0	0	0	0	0	0	0	
Total	9	49	212	148	24	6	0	0	0	0	0	0	1	44



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: East, B to A

6/30/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	> 25 - 30 MPH	> 30 - 33 MPH	9 33 - 40 MPH	MPH	> 45 - 50 MPH	> 50 - 55 MPH	> 55 - 60 MPH	MPH	> 65 - 70 MPH	> 70 MPH	Total
12:00 AM		0	1	0	0	0	0	0	0	0	0	0	0	1
1:00		0	0	0	0	0	0	0	0	0	0	0	0	0
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	0	0	0	0	0	0	0	0	0	0	0	0
4:00		0	0	0	1	0	0	0	0	0	0	0	0	1
5:00		1	2	0	0	0	0	0	0	0	0	0	0	3
6:00	0	0	2	2	1	0	0	0	0	0	0	0	0	5
7:00	0	1	7	5	2	0	0	0	0	0	0	0	0	15
8:00	0	4	3	10	2	1	0	0	0	0	0	0	0	20
9:00	1	2	19	9	1	0	0	0	0	0	0	0	0	32
10:00	1	4	19	15	1	0	0	0	0	0	0	0	0	40
11:00	2	6	30	19	1	0	0	0	0	0	0	0	0	58
12:00 PM	2	7	28	14	4	0	1	0	0	0	0	0	0	56
1:00	0	8	31	12	3	0	0	0	0	0	0	0	0	54
2:00	1	12	30	20	1	0	0	0	0	0	0	0	0	64
3:00	2	10	40	14	1	0	0	0	0	0	0	0	0	67
4:00	0	12	34	10	0	1	0	1	0	0	0	0	0	58
5:00	0	11	34	16	5	0	0	0	0	1	0	0	0	67
6:00	0	5	16	8	0	0	0	0	0	0	0	0	0	29
7:00	2	5	11	7	0	1	0	0	0	0	0	0	0	26
8:00	1	2	11	4	0	0	0	0	0	0	0	0	0	18
9:00	0	1	3	3	1	0	0	0	0	0	0	0	0	8
10:00	0	0	4	4	1	0	0	0	0	0	0	0	0	9
11:00	0	0	2	1	0	0	0	0	0	0	0	0	0	3
Total	12	91	327	173	25	3	1	1	0	1	0	0	0	634



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Latitude: 44.381379

Longitude: -72.943263

irection: East	t, B to) <i>F</i>
7/1/2024		
Time	Λ 1	_

Direction: East														
7/1/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDI :	
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
1:00		0	0	0	0	0	0	0	0	0	0	0	0	0
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	1	0	0	0	0	0	0	0	0	0	0	1
4:00		0	0	0	0	1	0	0	0	0	0	0	0	1
5:00		1	6	3	1	0	0	0	0	0	0	0	0	11
6:00	0	2	13	4	0	0	0	0	0	0	0	0	0	19
7:00	0	1	23	8	0	0	0	0	0	0	0	0	0	32
8:00	3	4	20	8	1	0	0	0	0	0	0	0	0	36
9:00	1	8	23	7	0	0	0	0	0	0	0	0	0	39
10:00	1	4	22	13	1	0	0	0	0	0	0	0	0	41
11:00	1	8	20	15	3	0	0	0	0	0	0	0	0	47
12:00 PM	2	9	29	16	1	0	0	0	0	0	0	0	0	57
1:00	4	9	29	15	0	0	0	0	0	0	0	0	0	57
2:00	1	12	26	14	1	0	0	0	0	0	0	0	0	54
3:00	1	13	42	21	5	0	0	0	0	0	0	0	0	82
4:00	1	8	33	22	7	0	0	0	0	0	0	0	0	71
5:00	4	11	34	29	4	0	0	0	0	0	0	0	0	82
6:00	2	6	24	7	2	0	0	0	0	0	0	0	0	41
7:00	2	4	17	8	1	1	0	0	0	0	0	0	0	33
8:00	1	0	11	2	1	1	0	0	0	0	0	0	0	16
9:00	0	1	7	0	0	0	0	0	0	0	0	0	0	8
10:00	2	0	3	2	0	0	0	0	0	0	0	0	0	7
11:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	26	101	384	194	28	3	0	0	0	0	0	0	0	736



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: East, B to A

Direction. Easi	•													
7/2/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
Time	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	1	0	1	0	0	0	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	2	1	0	0	1	0	0	0	0	0	0	4
4:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00	0	1	2	3	0	0	0	0	0	0	0	0	0	6
6:00	0	4	8	5	0	0	0	0	0	0	0	0	0	17
7:00	2	5	23	4	4	0	0	0	0	0	0	0	0	38
8:00	0	8	29	19	6	0	0	0	0	0	0	0	0	62
9:00	1	5	21	11	3	0	0	0	0	0	0	0	0	41
10:00	0	7	22	9	2	0	0	0	0	0	0	0	0	40
11:00	1	9	21	11	2	1	0	0	0	0	0	0	0	45
12:00 PM	0	7	25	37	2	0	0	0	0	0	0	0	0	71
1:00	1	7	21	19	4	2	0	0	0	0	0	0	0	54
2:00	1	16	35	21	4	1	0	0	0	0	0	0	0	78
3:00	3	12	39	13	3	0	0	0	0	0	0	0	0	70
4:00	0	9	38	17	6	0	0	0	0	0	0	0	0	70
5:00	1	10	52	27	6	0	0	0	0	0	0	0	0	96
6:00	1	6	24	16	7	1	0	0	0	0	0	0	0	55
7:00		7	26	14	1	0	0	0	0	0	0	0	0	49
8:00	0	2	20	6	0	0	0	0	0	0	0	0	0	28
9:00	0	0	3	6	1	0	0	0	0	0	0	0	0	10
10:00		1	2	2	0	0	0	0	0	0	0	0	0	5
11:00		0	1	1	1	0	0	0	0	0	0	0	0	3
Total		116	416	242	53	5	1	0	0	0	0	0	0	845



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: East, B to A

7/3/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDU	T
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0
1:00		0	0	0	0	0	0	0	0	0	0	0	0	0
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	1	0	0	0	0	0	0	0	0	0	0	1
4:00		0	2	1	0	1	0	0	0	0	0	0	0	4
5:00		0	4	4	0	0	0	0	0	0	0	0	0	8
6:00		4	8	8	0	0	0	0	0	0	0	0	0	20
7:00		6	27	6	1	0	0	0	0	0	0	0	0	44
8:00		4	13	10	0	0	0	0	0	0	0	0	0	29
9:00	1	2	27	8	0	0	0	0	0	0	0	0	0	38
10:00	2	8	19	9	2	0	0	0	0	0	0	0	0	40
11:00		7	20	9	0	0	0	0	0	0	0	0	0	40
12:00 PM	5	10	28	9	1	0	0	0	0	0	0	0	0	53
1:00	5	7	26	8	3	0	0	0	0	0	0	0	0	49
2:00	4	8	32	18	1	0	0	0	0	0	0	0	0	63
3:00	3	14	25	12	2	0	0	0	0	0	0	0	0	56
4:00	5	11	38	30	6	0	0	0	0	0	0	0	0	90
5:00	2	19	32	15	4	1	0	0	1	0	0	0	0	74
6:00	2	9	22	9	0	1	0	0	0	0	0	0	0	43
7:00	0	6	22	7	0	0	0	0	0	0	0	0	0	35
8:00	0	5	9	8	0	0	0	0	0	0	0	0	0	22
9:00	0	1	3	3	1	0	0	0	0	0	0	0	0	8
10:00	0	0	7	4	0	0	0	0	0	0	0	0	0	11
11:00	0	0	2	1	1	0	0	0	0	0	0	0	0	4
Total	39	121	367	179	22	3	0	0	1	0	0	0	0	732
Grand Total	126	676	2458	1340	234	33	2	1	1	1	0	0	2	4874
Stats			Percentile	15th	50th	85th	95th							

22

26

29

 Speed
 19

 Mean Speed (Average)
 24.0

 10 MPH Pace Speed
 21-30

 Number in Pace
 3795

 Percent in Pace
 78.0%

 Number > 25 MPH
 1614

 Percent > 25 MPH
 33.1%



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Combined

12:00 AM 0 1 1 0<	0 0 0 0 0 0 0 0	Total 2 2 0 1 3 12 30
12:00 AM 0 1 1 0<		2 2 0 1 3 12
1:00 0 2 0	0 0 0 0 0	2 0 1 3 12 30
2:00 0	0 0 0 0 0	2 0 1 3 12 30
3:00 0 0 1 0	0 0 0 0 0	0 1 3 12 30
4:00 0 0 1 0 2 0	0 0 0 0	1 3 12 30
5:00 0 1 6 4 0 1 0 0 0 0 0 0 6:00 0 0 0 20 8 1 1 0 0 0 0 0 0 0 7:00 1 17 40 12 1 1 0 0 0 0 0 0	0 0 0 0	3 12 30
6:00 0 0 20 8 1 1 0 0 0 0 0 0 0 7:00 1 17 40 12 1 1 0 0 0 0 0 0 0	0 0 0	12 30
7:00 1 17 40 12 1 1 0 0 0 0 0 0	0 0	30
	0	
		72
8:00 3 10 54 19 1 0 0 0 0 0 0 0	0	87
9:00 4 14 33 14 2 1 0 0 0 0 0 0	0	68
10:00 1 12 45 15 0 0 0 0 0 0 0 0 0	0	73
11:00 4 12 46 15 4 2 0 0 0 0 0 0	0	83
12:00 PM 2 12 47 21 4 0 0 0 0 0 0 0 0	0	86
1:00 5 18 55 23 3 1 0 0 0 0 0 0	0	105
2:00 2 22 50 22 1 0 0 0 0 0 0 0	0	97
3:00 4 24 57 27 6 1 0 0 0 0 0 0	0	119
4:00 5 17 85 38 7 1 0 0 0 0 0 0	0	153
5:00 4 19 65 34 10 1 0 0 0 0 0 0	0	133
6:00 5 16 51 19 3 0 0 0 0 0 0	0	94
7:00 3 8 31 9 3 0 0 0 0 0 0	0	54
8:00 0 9 20 11 2 0 0 0 0 0 0	0	42
9:00 0 4 12 14 0 0 0 0 0 0 0	Õ	30
10:00 0 1 12 4 2 0 1 0 0 0 0	Õ	20
11:00 0 0 3 1 0 0 0 0 0 0 0	0	4
Total 43 219 735 310 52 10 1 0 0 0 0 0	0	1370



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Combined

6/28/2024	ibilica	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	4	1	1	0	0	0	0	0	0	0	0	6
5:00	0	3	7	3	0	0	0	0	0	0	0	0	0	13
6:00	0	3	13	6	0	0	0	0	0	0	0	0	0	22
7:00	5	8	42	10	4	1	0	0	0	0	0	0	0	70
8:00	4	8	50	20	4	0	0	0	0	0	0	0	0	86
9:00	3	10	46	20	5	0	0	0	0	0	0	0	0	84
10:00	2	14	44	16	1	1	0	0	0	0	0	0	0	78
11:00	4	12	48	23	2	0	0	0	0	0	0	0	0	89
12:00 PM	1	7	56	28	4	0	0	0	0	0	0	0	0	96
1:00	2	15	55	20	7	3	0	0	0	0	0	0	1	103
2:00	5	14	64	23	2	1	0	0	0	0	0	0	0	109
3:00	5	25	82	38	2	0	0	0	0	0	0	0	0	152
4:00	13	20	71	40	13	2	0	0	0	0	0	0	0	159
5:00	2	16	77	34	12	2	0	0	0	0	0	0	0	143
6:00	3	12	40	33	6	1	1	0	0	0	0	0	0	96
7:00	0	11	42	18	2	1	0	0	0	0	0	0	0	74
8:00	2	9	31	14	0	0	0	0	0	0	0	0	0	56
9:00	0	1	26	14	1	0	0	0	0	0	0	0	0	42
10:00	0	1	3	6	2	0	0	0	0	0	0	0	0	12
11:00	0	0	3	5	2	0	0	0	0	0	0	0	0	10
Total	51	189	806	374	70	12	1	0	0	0	0	0	1	1504



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Latitude: 44.381379

Longitude: -72.943263

ection: Comb	oined													
6/29/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	-0.14DII	
) - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	1	3	1	0	0	0	0	0	0	0	0	
1:00	0	0	1	1	0	0	0	0	0	0	0	0	0	
2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00	0	0	1	0	1	0	0	0	0	0	0	0	0	
5:00	0	1	5	3	0	0	0	0	0	0	0	0	0	
6:00	0	1	7	2	0	0	0	0	0	0	0	0	0	
7:00	2	1	15	9	1	0	0	0	0	0	0	0	0	
8:00	3	7	27	12	1	1	0	0	0	0	0	0	0	
9:00	0	8	38	8	3	0	0	0	0	0	0	0	0	
10:00	2	16	54	16	2	2	0	0	0	0	0	0	0	
11:00	6	17	32	10	4	0	0	0	0	0	0	0	0	
12:00 PM	3	13	41	21	4	1	0	0	0	0	0	0	0	
1:00	1	7	31	25	4	1	0	0	0	0	0	0	1	
2:00	2	8	39	22	6	1	0	0	0	0	0	0	0	
3:00	1	6	27	24	1	3	0	0	0	0	0	0	0	
4:00	0	6	26	21	4	0	0	0	0	0	0	0	0	
5:00	2	7	30	22	2	0	0	0	0	0	0	0	0	
6:00	2	6	33	17	0	0	0	0	0	0	0	0	0	
7:00	1	0	17	7	2	0	0	0	0	0	0	0	0	
8:00	0	3	13	4	1	0	0	0	0	0	0	0	0	
9:00	1	3	8	3	1	0	0	0	0	0	0	0	0	
10:00	0	2	8	7	0	1	0	0	0	0	0	0	0	
11:00	1	1	3	3	0	0	0	0	0	0	0	0	0	
Total	27	113	458	240	38	10	0	0	0	0	0	0	1	



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Latitude: 44.381379

Longitude: -72.943263

rection: Comb	oined													
6/30/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70		
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	1	1	3	1	0	1	0	0	0	0	0	0	0	7
1:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00	0	1	3	0	0	0	0	0	0	0	0	0	0	4
6:00	0	0	8	3	2	0	0	0	0	0	0	0	0	13
7:00	0	2	12	5	3	0	0	0	0	0	0	0	0	22
8:00	3	5	13	12	3	1	0	0	0	0	0	0	0	37
9:00	4	7	35	11	1	0	0	0	0	0	0	0	0	58
10:00	8	9	47	20	3	0	1	0	0	0	1	0	0	89
11:00	4	19	62	34	3	1	0	0	0	0	0	0	0	123
12:00 PM	6	30	79	24	6	0	1	0	0	0	0	0	0	146
1:00	3	18	66	23	5	0	0	0	0	0	0	0	0	115
2:00	6	30	62	37	1	0	0	0	0	0	0	0	0	136
3:00	8	28	69	24	2	0	0	0	0	0	0	0	0	131
4:00	9	44	61	15	0	1	0	1	0	0	0	0	1	132
5:00	7	29	55	18	6	1	0	0	0	1	0	0	1	118
6:00	1	9	29	14	1	1	0	0	0	0	0	0	0	55
7:00	3	11	23	12	0	1	1	0	0	0	0	0	0	51
8:00	1	5	19	5	0	0	0	0	0	0	0	0	0	30
9:00	0	2	12	3	1	0	0	0	0	0	0	0	0	18
10:00	1	0	5	6	1	0	0	0	0	0	0	0	0	13
11:00	0	0	4	1	0	0	0	0	0	0	0	0	0	5
Total	65	250	668	269	39	7	3	1	0	1	1	0	2	1306



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Combined

Direction: Com	binea													
7/1/2024	0 45 MB	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDL:	
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	2
1:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:00	0	0	1	0	0	1	0	0	0	0	0	0	0	2
5:00	0	1	9	3	1	0	0	0	0	0	0	0	0	14
6:00	1	5	17	5	0	0	0	0	0	0	0	0	0	28
7:00	3	12	36	12	0	0	0	0	0	0	0	0	0	63
8:00	6	11	37	14	2	1	1	0	0	0	0	0	0	72
9:00	3	19	39	10	0	0	0	0	0	0	0	0	0	71
10:00	7	18	41	16	1	0	0	0	0	0	0	0	0	83
11:00	3	13	41	19	3	0	0	0	0	0	0	0	0	79
12:00 PM	6	20	53	24	2	0	0	0	0	0	0	0	0	105
1:00	10	21	54	23	0	0	0	0	0	0	0	0	0	108
2:00	11	21	62	23	2	1	0	0	0	0	0	0	0	120
3:00	7	29	78	27	9	1	0	0	0	0	0	0	0	151
4:00	4	18	69	32	9	1	0	0	0	0	0	0	0	133
5:00	8	19	70	47	4	1	0	0	0	0	0	0	0	149
6:00	4	14	52	12	2	0	0	0	0	0	0	0	0	84
7:00	5	7	32	9	2	3	0	0	0	0	0	0	0	58
8:00	3	2	20	5	2	1	0	0	0	0	0	0	0	33
9:00	0	3	11	1	0	1	0	0	0	0	0	0	0	16
10:00	2	0	4	2	0	1	0	0	0	0	0	0	0	9
11:00	0	0	2	2	0	0	0	0	0	0	0	0	0	4
Total	83	234	730	286	39	12	1	0	0	0	1	0	0	1386



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25 Counters: RP, AM

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Combined

7/2/2024														
7/2/2024	0 4514511	> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	-0.14D	
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM	0	0	2	0	1	0	0	0	0	0	0	0	0	3
1:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	2	1	0	0	1	0	0	0	0	0	0	4
4:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:00	0	1	7	3	0	0	0	0	0	0	0	0	0	11
6:00	1	5	15	8	1	1	0	0	0	0	0	0	0	31
7:00	7	9	44	12	4	0	0	0	0	0	0	0	0	76
8:00	0	13	53	27	6	0	0	1	0	0	0	0	0	100
9:00	4	9	41	15	4	0	0	0	0	0	0	0	0	73
10:00	3	13	50	16	3	0	0	0	0	0	0	0	0	85
11:00	2	19	45	20	2	1	0	0	0	0	0	0	0	89
12:00 PM	2	11	52	46	4	0	1	0	0	0	0	0	0	116
1:00	5	15	45	30	5	2	0	0	0	0	0	0	0	102
2:00	7	22	71	29	5	1	0	0	0	0	0	0	0	135
3:00	6	24	71	21	5	0	0	0	0	0	0	0	0	127
4:00	11	23	79	30	11	0	1	0	0	0	0	0	0	155
5:00	2	22	98	47	9	2	0	2	0	0	0	0	0	182
6:00	6	12	52	24	10	2	0	0	0	0	0	0	0	106
7:00	9	16	43	24	1	0	0	0	0	0	1	0	0	94
8:00	1	6	35	10	0	0	0	0	0	0	0	0	0	52
9:00	0	2	13	8	2	0	0	0	0	0	0	0	0	25
10:00	0	1	4	4	0	0	0	0	0	0	0	0	0	9
11:00	0	0	2	1	1	0	0	0	1	0	0	0	0	5
Total	66	223	828	376	74	9	3	3	1	0	1	0	0	1584



RICH31: Cochran Rd West of Wheeler Ln

Municipality: Richmond

Dir 1: WB, Dir 2: EB, Speed Limit: 25

Counters: RP, AM Latitude: 44.381379 Longitude: -72.943263

Direction: Combined

Direction: Con														
7/3/2024		> 15 - 20	> 20 - 25	> 25 - 30	> 30 - 35	> 35 - 40	> 40 - 45	> 45 - 50	> 50 - 55	> 55 - 60	> 60 - 65	> 65 - 70	70 MDU	.
	0 - 15 MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH	> 70 MPH	Total
12:00 AM		0	1	0	0	0	0	0	0	0	0	0	0	1
1:00		0	2	0	0	0	0	0	0	0	0	0	0	2
2:00		0	0	0	0	0	0	0	0	0	0	0	0	0
3:00		0	1	0	0	0	0	0	0	0	0	0	0	1
4:00		0	4	1	0	1	0	0	0	0	0	0	0	6
5:00		0	7	4	0	0	0	0	0	0	0	0	0	11
6:00		6	16	9	0	0	1	0	0	0	0	0	0	32
7:00	8	15	51	12	1	0	0	0	0	0	0	0	0	87
8:00	3	4	28	16	1	0	0	0	0	0	0	0	0	52
9:00	3	8	48	12	2	0	0	0	0	0	0	0	0	73
10:00	3	22	47	12	2	1	0	0	0	0	0	0	0	87
11:00	8	16	42	11	0	0	0	0	0	0	0	0	0	77
12:00 PM	11	21	55	15	1	0	0	0	0	0	0	0	0	103
1:00	8	24	52	13	5	0	0	0	0	0	0	0	0	102
2:00	13	20	52	28	1	0	0	0	0	0	0	0	0	114
3:00	9	30	58	22	5	0	0	0	0	0	0	0	0	124
4:00	14	31	68	42	6	1	0	0	0	0	0	0	0	162
5:00	10	38	63	23	6	1	1	0	1	0	0	0	0	143
6:00	7	19	41	15	1	1	1	0	0	0	0	0	0	85
7:00	2	9	38	11	1	0	0	0	0	0	0	0	0	61
8:00	2	8	17	10	1	0	0	0	0	0	0	0	0	38
9:00		2	11	7	1	0	0	0	0	0	0	0	0	21
10:00		1	10	4	1	0	0	0	0	0	0	0	0	16
11:00	0	1	2	2	2	0	0	0	0	0	0	0	0	7
Total	101	275	714	269	37	5	3	0	1	0	0	0	0	1405
Grand Total	436	1503	4939	2124	349	65	12	4	2	1	3	0	4	9442
Stats			Percentile	15th	50th	85th	95th							

22

26

29

 Speed
 18

 Mean Speed (Average)
 23.3

 10 MPH Pace Speed
 20-29

 Number in Pace
 7133

 Percent in Pace
 76.0%

 Number > 25 MPH
 2564

 Percent > 25 MPH
 27.2%