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MEMORANDUM

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TO: KELLY HITCHCOCK

FROM: JEANIE ALEXANDER, P.E.

ORGANIZATION: CVTPO

DATE: MARCH 8, 2022

PHONE NUMBER:

SENDER'S REFERENCE NUMBER:

RE: PSI INTERSECTION STUDY UPDATE

YOUR REFERENCE NUMBER:

URGENT     FOR YOUR USE     PLEASE COMMENT     PLEASE REPLY     PLEASE RECYCLE

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## Background

The CVTPO has undertaken a study of the top 10 unstudied and unfunded Potential for Safety Improvement (PSI) intersections that fall within the CVTPO region. The study will evaluate current and future conditions and provide recommendations for safety improvements. This information can be used in the future to pursue grant funding opportunities.

PSI is a calculation that determines if the observed crash frequency exceeds the frequency that would typically be expected on a road with similar characteristics and traffic volumes. PSI is the best measure available for understanding whether crashes at an intersection are lower or higher than expected. VDOT publishes a ranking of intersections and road segments with PSI for each VDOT District. The PSI rankings for this study are based on 2014-2018 crash data. The lower the ranking, the higher the PSI. For example, the #1 ranked intersection with PSI has the highest potential for safety improvement, meaning the observed crash frequency is higher than the crash frequency that would be expected for an intersection with similar traffic volumes and characteristics.

## Introduction

The study includes intersections listed below and shown in **Figure 1**. The intersection of Forest Road (Route 221) and Ashwood Manor Court was originally included for study, however, upon examination of the crash data at the intersection it was determined that the crashes are due to the adjacent intersection of Perrowville Road (663)/Ashwood Park Road with Forest Road (Route 221) rather than Ashwood Manor Court. As a result, the Ashwood Manor Court intersection was removed from the study.

### Amherst County

1. US Route 29 Business (Amherst Highway) and North Coolwell Road (663)/Smokey Hollow Road (663)
2. Elon Road (Route 130) and Berg Drive (1240)/Winridge Drive (795)

### Bedford County

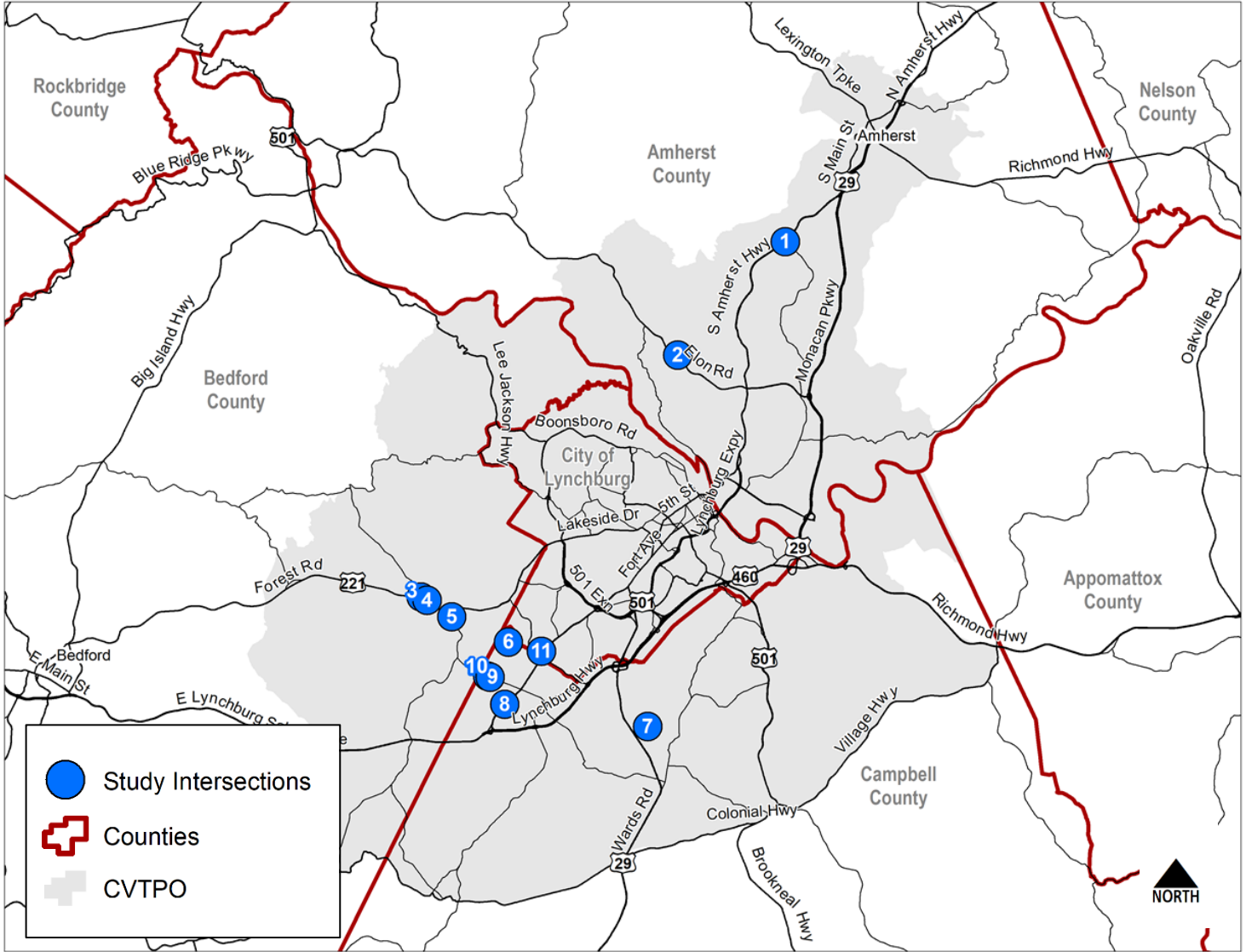
- ~~3. Forest Road (Route 221) and Ashwood Manor Court~~
4. Forest Road (Route 221) and Venture Drive (1489)
5. Burnbridge Road (854) and Thomas Jefferson Road (811)

### Campbell County

6. Rainbow Forest Drive (1520) and Crossway Boulevard (1557)
7. Russell Springs Drive and English Tavern Road (738)

8. Timberlake Road (US Route 460 Business) and Braxton Park Circle/Lake Court Avenue (789)
9. Waterlick Road (622) and Jefferson Manor Drive (835)
10. Waterlick Road (622) and Moss Creek Drive (1680)
11. Mountain View Drive (862) and Laxton Road (1520)

**Figure 1: Study Intersections**



## Steering Work Group (SWG)

A Steering Work Group (SWG) was established to help identify background information relevant to the study, serve as a sounding board for potential recommendations, and to help guide final project recommendations. **Table 1** includes a list of SWG participants.

**Table 1 Steering Work Group**

Full Name	Organization
Jeremy Bryant	Amherst County
Tyler Creasy	Amherst County
Mariel Fowler	Bedford County
Jordan Mitchell	Bedford County
Eric Smedley	Bedford County
Paul Harvey	Campbell County
Clif Tweedy	Campbell County
Kelly Hitchcock	Central Virginia PDC
Ada Hunsberger	Central Virginia PDC
Ryan Roberts	City of Lynchburg
Jeanie Alexander	EPR, P.C.
Hannah MacKnight	EPR, P.C.
Bill Wuensch	EPR, P.C.
David Cook	VDOT Lynchburg District
Keith Rider	VDOT Lynchburg District
Rick Youngblood	VDOT Lynchburg District
Jim Keene	VDOT Salem District
Mike McPherson	VDOT Salem District
Carol Moneymaker	VDOT Salem District
J.P. Morris	VDOT Salem District

Three SWG meetings were held on December 2<sup>nd</sup>, 2021, January 10<sup>th</sup>, 2022, and February 17<sup>th</sup>, 2022. The focus of the first meeting was on existing conditions and gathering information about each of the study locations. The focus of the second SWG meeting was on potential improvements. The focus of the third SWG meeting was on the recommended improvement concepts.

## Study Process

The primary focus of the effort is to identify recommendations that could be constructed to improve safety at the study intersections. To identify safety improvements, a variety of information listed below has been gathered and analyzed.

- Detailed crash reports for the most recent five-year period available
- Traffic counts
- Engineering Standards: access management, turn lane warrants, clearance intervals, sight distance, etc.
- Field observations
- Other studies

This information was used to conduct traffic operational analyses, project future 2045 traffic volumes, compare current conditions to VDOT standards, and develop draft improvement recommendations.



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### Study Schedule

The study recommendations will be available April and will be presented to the County Boards of Supervisors if desired. The documentation will include a report and Highway Safety Improvement Program (HSIP) documentation as needed for potential future funding applications.

**End of Memorandum**