

CHAPTER 1: INTRODUCTION

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1.1 GENERAL

This section of the VDOT Traffic Engineering Design Manual has been developed to provide guidance on the design of traffic signals. The manual presents engineering fundamentals needed to design traffic signals. Examples are presented that will help develop the concepts needed to understand and design a traffic signal. The manual has been divided into four Chapters as follows:

Chapter 1 presents an introduction to Section IV of the Traffic Engineering Design Manual.

Chapter 2 presents Engineering Concepts / Guidance for traffic signal operations and vehicle detection.

Chapter 3 presents Preliminary Engineering for traffic signal design.

Chapter 4 presents Plan Development for traffic signal design.

Appendix A provides an example of a traffic signal plan set.

Appendix B provides design aides and other information useful in developing the traffic signal design

1.2 ACKNOWLEDGMENTS

The following references are used throughout the Section:

- Manual on Uniform Traffic Control Devices, USDOT/FHWA, Washington, DC, 2000
- Highway Capacity Manual 2000, Transportation Research Board, 2000
ISBN No: 0-309067-46-4
- Traffic Control Devices Handbook, Institute of Transportation Engineers, Washington, DC, 2001.
ISBN No: 0-935403-61-2
- Manual of Traffic Signal Design, Institute of Transportation Engineers, 1998
- Manual of Traffic Engineering Studies, Institute of Transportation Engineers, 1994
- Traffic Detector Handbook, 2nd ed., Institute of Transportation Engineers 1991
ISBN No: 0-935403-14-0
- Traffic Engineering Handbook, 5th ed. Institute of Transportation Engineers, 1999
ISBN No: No: 0-935403-32-9