

INTRODUCTION TO

Traffic Engineering

A Manual for Data Collection and Analysis



THOMAS R. CURRIN

Contents

1. Introduction	<i>How to Use This Manual</i>	1
2. Spot Speed Study	<i>Determining Roadway Speeds</i>	4
3. Turning Movement Counts	<i>Assessing the Signalized Intersection I</i>	13
4. Vehicle Delay Study	<i>Assessing the Signalized Intersection II</i>	23
5. Parking Study	<i>On- and Off-Street Analysis</i>	31
6. Saturation Flow Rate	<i>Assessing the Signalized Intersection III</i>	42
7. Poisson Distribution	<i>Assessing the Signalized Intersection IV</i>	54
8. Queue Length	<i>Assessing the Signalized Intersection V</i>	67
9. Gap Study	<i>Capacity and the Unsignalized Intersection</i>	87
10. Traffic Compliance Study	<i>Obeying the Law</i>	87
11. The Platoon Ratio	<i>Identifying Progressive Movement</i>	98
12. Vehicle Occupancy Study	<i>Measuring Persons per Vehicle</i>	105
13. Origin-Destination Study	<i>Where and When Do They Travel?</i>	114
14. Trip Generation Study	<i>Land Use and Trip Production</i>	123
Appendix		130
References		138