

TRAFFIC SIGNAL MANUAL

By Tanya Bankston



Traffic Signal Manual

- ▣ Current Version of the manual was prepared by Neel-Schaffer in 2002
- ▣ The Traffic Signal Manual is currently being updated by DOTD
- ▣ The revised manual is currently in draft format only
- ▣ The Final Version will be available this year

Traffic Signal Manual

	<u>2002 Manual</u>	<u>2012 Manual</u>
<u>Chapters</u>		
1	Justification for Signal Control	Introduction
2	Traffic Signal Design	Signal Studies
3	Signal Plans	Operations
4	Traffic Signal Inventory (TSI) Forms	Signal Equipment and Signs
5	N/A	Signal Plans

Chapter 1

Introduction

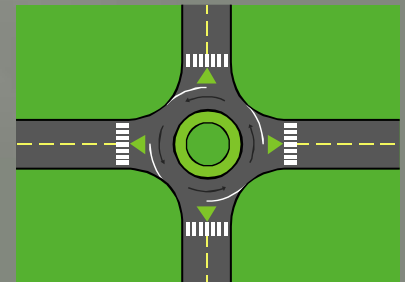
- ▣ Introduction to Manual
- ▣ Keywords



Chapter 2

Signal Studies

- ▣ Traffic Signal Study Requirements
- ▣ Traffic Signal Justifications
 - Removal of a Traffic Signal
 - Installation of a New Traffic Signal
 - ▣ Comparison of Other Alternatives
 - All-Way Stop
 - Roundabout
 - Left Turn Lane
 - Signal with Turn Lane Added
 - Signalized and Unsignalized Median U-Turns
 - Turn (Access) Restrictions



Chapter 3

Traffic Signal Operations

- ▣ Types of Signal Operations
- ▣ Signal Phasing
- ▣ Signal Timing
 - TS2 Controller Terminology
 - Currently updating the TSI Construction Format

Chapter 4

Signal Equipment and Signs

- ▣ Vehicle Detection
- ▣ Signal Heads
- ▣ Traffic Signal
Controllers/Cabinets/Communication
 - Fiber Standards

Chapter 4

Signal Equipment and Signs Continued

▣ Power Supply

- If the power supply is more than 500' from the cabinet and the power pedestal, then a 2 gauge wire is needed.
- A power pedestal is required when the power supply is located more than 20' away from the controller.



Chapter 4

Signal Equipment and Signs

Continued

▣ Signal Supports

Foundation Minimum	Mast Arms	Transport Item #
26"	Signal Support, Mast Arm, 20' Span , Mount Height 20', w/Trans Base	736-04-04060
26"	Signal Support, Mast Arm, 25' Span , Mount Height 20', w/Trans Base	736-04-04080
26"	Signal Support, Mast Arm, 30' Span , Mount Height 20', w/Trans Base	736-04-04100
26"	Signal Support, Mast Arm, 35' Span , Mount Height 20', w/Trans Base	736-04-04120
26"	Signal Support, Mast Arm, 40' Span , Mount Height 20', w/Trans Base	736-04-04140
26"	Signal Support, Mast Arm, 45' Span , Mount Height 20', w/Trans Base	736-04-04160
26"	Signal Support, Mast Arm, 50' Span , Mount Height 20', w/Trans Base	736-04-04180
26"	Signal Support, 25' Span , Mount Height 20', 20' Span Add On Arm w/Base	736-04-05001
26"	Signal Support, 25' Span , Mount Height 20', 25' Span Add On Arm w/Base	736-04-05002
26"	Signal Support, 30' Span , Mount Height 20', 25' Span Add On Arm w/Base	736-04-05003
26"	Signal Support, 35' Span , Mount Height 20', 20' Span Add On Arm w/Base	736-04-05004
26"	Signal Support, 35' Span , Mount Height 20', 25' Span Add On Arm w/Base	736-04-05005
26"	Signal Support, 40' Span , Mount Height 20', 25' Span Add On Arm w/Base	736-04-05006
26"	Signal Support, 40' Span , Mount Height 20', 30' Span Add On Arm w/Base	736-04-05007
26"	Signal Support, 40' Span , Mount Height 20', 35' Span Add On Arm w/Base	736-04-05008
26"	Signal Support, 45' Span , Mount Height 20', 25' Span Add On Arm w/Base	736-04-05009
26"	Signal Support, 45' Span , Mount Height 20', 30' Span Add On Arm w/Base	736-04-05010
26"	Signal Support, 45' Span , Mount Height 20', 35' Span Add On Arm w/Base	736-04-05011
26"	Signal Support, 45' Span , Mount Height 20', 40' Span Add On Arm w/Base	736-04-05012

Note: All dual mast arms shall be placed at a 90° angle. If needed, rotate the signal heads to face approaching traffic.

Chapter 4

Signal Equipment and Signs Continued

- ▣ Signal Wiring
- ▣ Conduit
 - Section 45 requested an extra conduit to be ran between the junction box and each foundation
- ▣ Junction Boxes
- ▣ Street Lighting on Signal Supports
- ▣ Signs

Chapter 5

Signal Plans

- ▣ The Required Plan Sheets
 - Road Construction Plan Inclusion
 - “Stand Alone” Signal Plans

- ▣ Draft TSI Construction Format
 - [http://www.dotd.la.gov/highways/traffic/TrafficEngineers Meeting/2012](http://www.dotd.la.gov/highways/traffic/TrafficEngineersMeeting/2012)
 - Comments due by July 27, 2012

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QUESTIONS

