

Traffic Engineering Design Manual

- *History*
- *Present Document*
- *Future Plans*
- *Open to questions/comments*



Traffic Engineering Design Manual

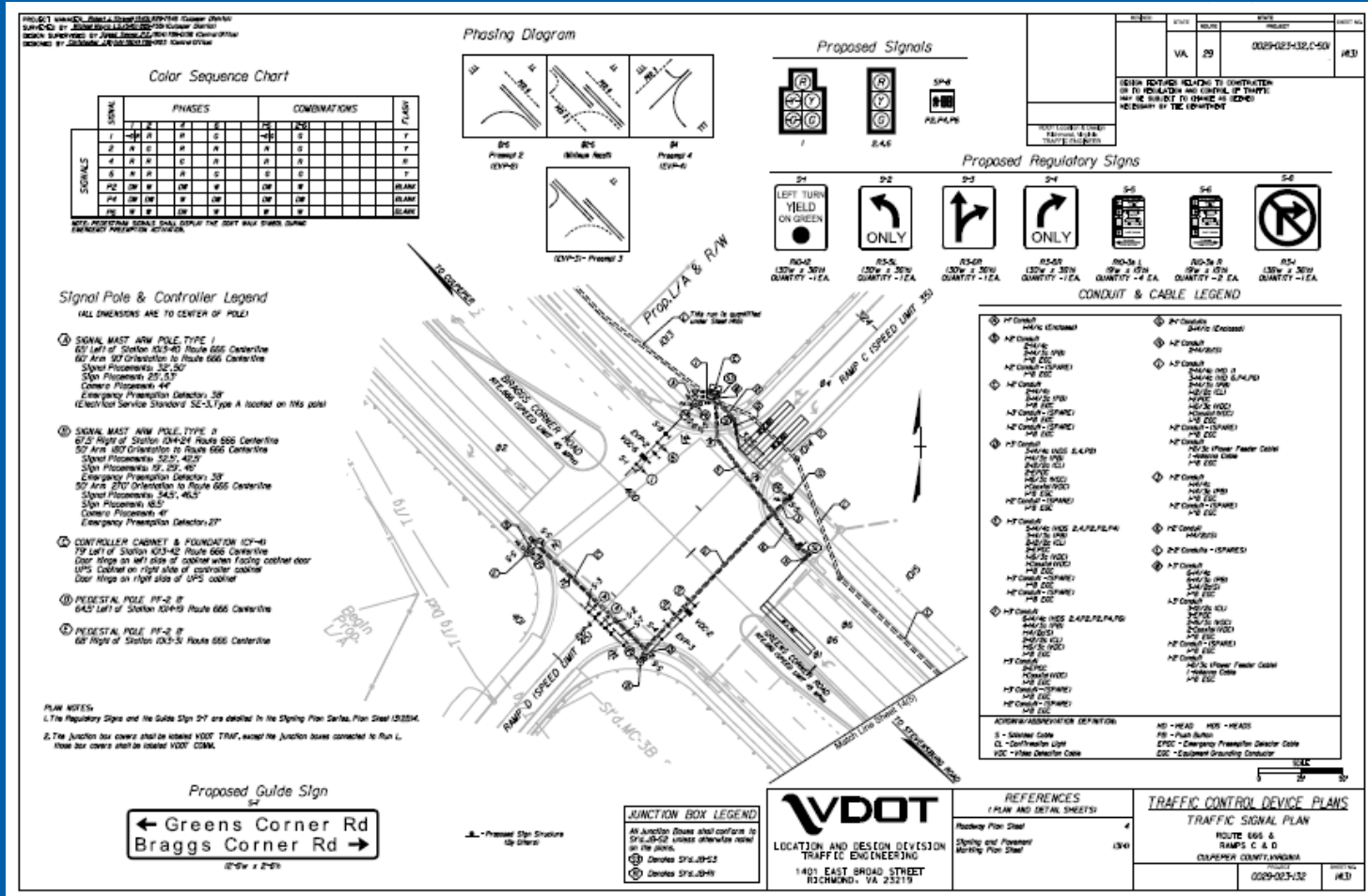
History

- Originally developed in 2006
- Updated recently in Fall of 2014 and includes:
 - Chapter 1 – Signal Design
 - Chapter 2 – Lighting Design
 - Chapter 3 – Signing and Pavement Marking
- Intent of the 2014 Update was :
 - To create a standardized plan format across the Commonwealth
 - To Improve Statewide Consistency and Quality
 - To give improved guidance to both consultant and VDOT designers

Fall 2014 Update:

- a. Incorporated Plan Format Changes:
 - i. Utilizes a standard conduit and cable legend (statewide)
 - ii. Standard/consistent symbology across all VDOT districts
- b. Gives improved guidance relative to types of design/construction projects
- c. Relate design process to VDOT Project Development Process

CONDUIT & CABLE LEGEND			
<ul style="list-style-type: none"> ◇ 1-1" Conduit 1-1/4" (Enclosed) ◇ 1-2" Conduit 2-1/4" (PB) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit 2-1/4" (PB) 1-1/8" EGC ◇ 1-3" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-3" Conduit 3-1/4" (HDS 2,4,P2) 3-1/4" (PB) 2-1/2" (CL) 2-EPDC 1-1/8" (VDC) 1-Coaxial (VDC) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-3" Conduit 3-1/4" (HDS 2,4,P2,P2,P4) 3-1/4" (PB) 2-1/2" (CL) 2-EPDC 1-1/8" (VDC) 1-Coaxial (VDC) 1-1/8" EGC ◇ 1-3" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-3" Conduit 6-1/4" (HDS 2,4,P2,P2,P4,P6) 4-1/4" (PB) 1-1/4" (2dS) 2-1/2" (CL) 1-1/8" (VDC) 1-1/8" EGC ◇ 1-3" Conduit 2-EPDC 1-Coaxial (VDC) 1-1/8" EGC ◇ 1-3" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC 	<ul style="list-style-type: none"> ◇ 2-1" Conduits 2-1/4" (Enclosed) ◇ 1-2" Conduit 2-1/4" (2dS) ◇ 1-3" Conduit 2-1/4" (HD 1) 3-1/4" (HD 6,P4,P6) 2-1/4" (PB) 1-1/2" (CL) 1-EPDC 1-1/8" (VDC) 1-Coaxial (VDC) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit 1-1/8" (Power Feeder Cable) 1-Antenna Cable 1-1/8" EGC ◇ 1-2" Conduit 1-1/4" (PB) 1-1/4" (PB) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit 1-1/4" (2dS) ◇ 2-2" Conduits - (SPARES) ◇ 1-3" Conduit 6-1/4" (PB) 6-1/4" (PB) 3-1/4" (2dS) 1-1/8" EGC ◇ 1-3" Conduit 3-1/2" (CL) 3-EPDC 2-1/5" (VDC) 2-Coaxial (VDC) 1-1/8" EGC ◇ 1-2" Conduit - (SPARE) 1-1/8" EGC ◇ 1-2" Conduit 1-1/8" (Power Feeder Cable) 1-Antenna Cable 1-1/8" EGC 		
<p>ACRONYM/ABBREVIATION DEFINITION:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> S - Shielded Cable CL - Confirmation Light VDC - Video Detection Cable </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> HD - HEAD HDS - HEADS PB - Push Button EPDC - Emergency Preemption Detector Cable EGC - Equipment Grounding Conductor </td> </tr> </table>		<ul style="list-style-type: none"> S - Shielded Cable CL - Confirmation Light VDC - Video Detection Cable 	<ul style="list-style-type: none"> HD - HEAD HDS - HEADS PB - Push Button EPDC - Emergency Preemption Detector Cable EGC - Equipment Grounding Conductor
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Current Sample Design Plan

Future Plans for the Traffic Engineering Design Manual

- The manual is intended to be a work in progress
- Update schedule – update yearly to continually adapt and improve
- Upcoming update planned for January 2016
- Open to comments and suggestions from all involved parties and stakeholders

Future Plans for the Traffic Engineering Design Manual

January 2016 Update Plans:

Additional Content:

- **Additional sample plan examples**
- **Elaboration on signal design process**
- **Preliminary Plan Submission Requirements**
- **Adding signal modification plan example**
- **Guidance/plan requirements for temporary traffic signals**

Future Plans for the Traffic Engineering Design Manual

January 2016 Update Plans:

Additional Content:

- **Add recommended initial field visit including:**
 - **Inspector, designer, contractor, VDOT traffic rep., and construction**
- **Adding regional contact names**
- **Considering adding District or Region signal plan preferences**
- **Initial Timing Chart Discussion**
- **Others?**

Future Plans for the Traffic Engineering Design Manual

- **Comments or Suggestions for Improvements:**

Send to:

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- **Questions or Concerns?**