

TRAFFIC SIGNAL DESIGN QUESTIONNAIRE

The intention of this questionnaire is to determine traffic signal design preferences. The information provided will be used to develop traffic signal plans for your agency.

Date: _____	Return By: _____
Project Name: _____	
Project No: _____	
UPC / PPMS No: _____	
Advertisement Date: _____	
Plan Design Contact Information:	
Name: _____	
Phone No.: _____	
E-Mail Address: _____	

Traffic Signal Preferences:

1. Pedestrian Requirements:
 - a. Pushbutton type. PA-1 ____, PA-2 ____ or PA-3 ____
 - b. Pedestrian signals - type? SP-5 ____, SP-6 ____, SP-7 ____, SP-8 ____, or SP-9 ____
 - c. Countdown pedestrian signals? _____
 - d. Wire Size Requirements: (Wire gauge is 14 AWG)
 Pedestrian heads - No. of conductors? _____
 Pushbutton - No. of conductors? _____
 - e. Pedestrian pushbuttons in medians? (Yes or No): _____
 - f. Audible? (Yes or No): _____
 - g. CG-12 ramp location preferences? _____
 - h. Pedestrian sign preferences? _____

3. Intersection Markings:
 - a. Pedestrian crosswalk: (If combination, give explanation for guidance)
 Marked ____; Unmarked ____; Combination _____
 Crosswalk line width preferences:
 Traverse lines? (inches/mm) _____
 Longitudinal lines "Crossbars"? (inches/mm) _____
 Width of crosswalk? (VDOT standard width is 10-feet) _____

- b. Stop Bars:
 - Stagger stop bars in accordance with VDOT Standard PM-4? _____
 - Orient stop bars parallel to crosswalk? _____
 - Orient stop bars perpendicular to centerline or median? _____
 - c. Solid Lane Lines:
 - Use VDOT Standard PM-3 or PM-4? _____
 - If there is a local standard, specify. _____
 - d. Arrow and Message Markings:
 - Use MUTCD Standards when applying? _____
 - If there is a local standard, specify. _____
 - _____
 - _____
4. Signal Heads:
- a. Incandescent lamps _____, LED _____ or Combination of both? Specify. _____
 - b. Tunnel visors? (Yes or No): _____
 Half visor _____, or Full visor _____
 - c. Back plates? (Yes or No): _____
 Louvered _____, or Solid _____; Material preference _____
 - d. Signal head assembly color preference? _____
 - e. Permissive/Protected phasing permitted, (5-section)? (Yes or No): _____
 - f. Signal Head Mountings? SW-1 _____, or SW-2 _____, SM-3 _____
 - g. Wiring/Cable Size: (Wire gauge is AWG 14)
 3-section head assembly – No. of conductors? _____
 5-section head assembly – No. of conductors? _____
 Other (specify) _____
5. Signal Head Alignment: (Choose one)
- a. Lane line extended? _____
 - b. Center of lane? _____
 - c. Other? _____
6. Signal Phasing:
- a. Right Turn Overlaps? (Yes or No): _____
 - b. Main-line Minimum Recall? (Yes or No): _____
 - c. Use standard NEMA phasing? (Yes or No): _____
7. Signs:
- a. Metro Street Name Signs? (Yes or No): _____
 Dimensions? _____
 Message lettering size? _____
 Color combinations? _____
 Location on Pole? _____
 Who will supply signs? _____

- b. Internally Illuminated Street Name Signs? (Yes or No): _____
 - Dimensions? _____
 - Message lettering size? _____
 - Color combinations? _____
 - Location on Pole? _____
 - Wiring requirements? _____
 - Mounting bracket type? _____
 - Who will supply signs? _____
 - c. Existing School or Fire Station Flashing Signs? (Yes or No): _____
 - Sign Details? _____
 - Wire size? _____
 - Location? _____
 - Lettering size? _____
 - Pole Type/Style? _____

- 8. Pedestal Mounted Signals:
 - Permitted in Median? (Yes or No): _____
 - Mounting height to bottom of signal? _____
 - Pole set-back from median nose? _____

- 9. Detection:
 - a. Video Detection? (Yes or No): _____
 - Wiring requirements? _____
 - Camera location preference? _____
 - b. Loop Detectors? (Yes or No): _____
 - 1) Wiring requirements:
 - Loop? _____
 - Lead-in? _____
 - 2) Main line thru lanes:
 - Stop bar detection? _____
 - Extension loops? _____
 - 3) Loop Dimensions:
 - Stop bar detection? _____
 - Extension Loops? _____
 - 4) Loop detector installation? TD-1 A _____, TD-1B _____, or TD-1C _____
 - 5) Extension loop distance from stop bar? _____
 - 6) Stop bar loop located:
 - _____ -feet forward of; or
 - _____ -feet behind stop bar
 - 7) Count stations? (Yes or No): _____
 - Locations? _____

- 10. Loop Detector Amplifiers:
 - Where applicable, can loop detectors share amplifier? (Yes or No): _____
 - (VDOT Cabinet Specs accommodate max. 20 amplifiers within the controller cabinet).

11. Conduits:
- Minimum conduit sizes? _____
 - Preferred crossings configuration? _____
 - Metal? (Yes or No): _____
When or where metal conduit applied? _____
(Specs provide contractor the choice of Metal, PVC or Fiberglass).
 - Installation? ___ (ECI-1), ___ Jacking or Boring
12. Junction Boxes:
- Preferred Sizes? JB-1 ____, JB-2 ____, JB-3 ____, JB-4 ____, JB-5 ____
 - Preferred Type? Type A ____, Type B ____, Type C ____, Type D ____
 - Preferred Spacing? _____
13. Controller Cabinet:
- Ground or Pole mounted? _____
 - Location? _____
 - New or reuse existing? _____
 - Re-use equipment inside cabinet? _____
 - Special color? _____
14. Electrical Service:
- Type? SE-1 ____, SE-2 ____, SE-3 ____, SE-4 ____, or SE-5 ____
 - Overhead or underground? _____
 - Any modifications? _____
 - Metered? _____
15. Signal Poles:
- Mast arm? (MP-1) (Yes or No): _____
Special Treatments? (Color, Style) _____
Maximum mast arm length? _____
 - Combination luminaire mast arm poles? (MP-1) (Yes or No): _____
Maximum mast arm length? _____
Maximum luminaire arm length? _____
Luminaire mounting height? (min. or max. restrictions): _____
(Note: When luminaire arms are to be installed by the VDOT contractor and luminaires are to be installed by others compatibility must be ensured. Provide specifications for the luminaire to be used.
 - Span Wire? (MP-2) (Yes or No): _____
 - Combination luminaire strain poles? (MP-2) (Yes or No): _____
Mounting height of luminaire? (min. or max. restrictions): _____
 - Dual mast arm poles permitted? _____
 - Architectural or special color? _____

16. Signal Pole Foundation:
Foundation PF-1? (Yes or No): _____
17. Interconnect System:
a. Hard wire - cable? (Yes or No): _____
Size? _____
Location? _____
Splice enclosures? CTE-1 _____, CTE-2 _____, or CTE-3 _____
b. Radio? _____
c. Fiber optic? _____
d. Other? _____
18. Preemption:
a. Approaches to be monitored? All _____, Main-line only _____
Wiring requirements? _____
b. Confirmation lights? (Yes or No): _____
Wiring requirements? _____
19. Controller Cabinet Foundation:
Cabinet Foundation Type? CF-1 _____, CF-2 _____, or CF-3 _____
Mark conduit locations in foundation surface? Specify if different than VDOT specifications: _____

20. Fire hydrant markers (Blue)? (Yes or No): _____
21. Signal Timings:
Specify who will prepare signal timings? (Contractor or maintaining agency): _____

22. Other information needed:
a. Existing As-Built drawings available? _____
b. Name, address and phone number of signal equipment delivery for salvaged equipment. _____

c. Special or General Notes Available? _____
d. Proprietary Signal Equipment? (Reference TEDM Section I, Chapter 2.6 and submit request to Local Assistance Division) _____

e. What is the posted speed limit for the major roadway? _____

