



Signal Design / Modification Request Form

169 Brick Store Landing Road, Smyrna, DE

This form, as well as the attached Signal Design Checklist, should be completed for all new signals and for all existing signals requiring design modifications on state maintained highways in the state of Delaware.

Location: _____

Signal: <input type="checkbox"/> New (Proposed) <input type="checkbox"/> Existing (Permit #: _____)

County: _____

If **new**, signal warrants met:
(signal warrant evaluation forms should be attached)

- | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> Warrant #1 | <input type="checkbox"/> Warrant #4 | <input type="checkbox"/> Warrant #7 |
| <input type="checkbox"/> Warrant #2 | <input type="checkbox"/> Warrant #5 | <input type="checkbox"/> Warrant #8 |
| <input type="checkbox"/> Warrant #3 | <input type="checkbox"/> Warrant #6 | <input type="checkbox"/> Warrant #9 |

If **existing**, proposed changes:

- | | |
|---|---|
| <input type="checkbox"/> Pedestrian upgrades | <input type="checkbox"/> Phase / Operational Upgrades |
| <input type="checkbox"/> Maintenance upgrades | <input type="checkbox"/> Intersection Improvements |
| <input type="checkbox"/> Developer | <input type="checkbox"/> Paving & Rehabilitation |
| <input type="checkbox"/> Other _____ | |

Requested By: _____

Date: _____

Recommended By: _____
(DeIDOT / Consultant) (Circle One)

Date: _____

Approved By: _____
(DeIDOT Chief Traffic Engineer or Designee)

Date: _____

Signal Design Checklist (attached)

Completed By: _____
(DeIDOT / Consultant) (Circle One)

Date: _____

Checked By: _____
(DeIDOT)

Date: _____

Approved By: _____
(DeIDOT)

Date: _____



DELDOT TRAFFIC SIGNAL PLAN REVIEW CHECKLIST

	Yes	No	N/A	Comments
The following items are included and shown correctly on the Plan Sheets:				
• Existing and proposed conditions (Only pertinent information should be shown on plans. All other levels should be turned off.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Limits of work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Base mapping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• North arrow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Correct scale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Consultant logo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Legend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Right-of-way lines and labels (existing and proposed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Equipment within Right-of-Way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Overhead utilities (heights indicated)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• General Notes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Street names	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Route numbers with cardinal direction (e.g. I-70 (WBL)) and road names	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Current borders / signature / revision block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Construction details (if required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Existing Signal Information				
• Existing signal plans have been verified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Site characteristics have been inventoried and examined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Existing signals to be removed are noted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Proposed Signal Information				
• Appropriate signal structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Appropriate signal structure configuration / placement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Lateral clearance requirements are met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Alternative pole configurations are used where applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal controller cabinet location and type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Cabinet location permits safe access by maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Cabinet is located near a power source (if possible)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Cabinet is protected (if needed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Cabinet does not restrict driver visibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal heads are numbered and placement is correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Distances from stop line are acceptable (40' to 120'; up to 180' with near side)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Minimum of two signal heads are provided for each movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Vertical signal head clearance requirements are met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Adequate signal visibility is provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Appropriate signal head sections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



DELDOT TRAFFIC SIGNAL PLAN REVIEW CHECKLIST

	Yes	No	N/A	Comments
• Countdown pedestrian signals and pushbuttons follow Design and Installation Guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Countdown signal located near and visible within crosswalk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Pushbuttons located correctly and readily accessible from 60"x60" level landing area on the sidewalk (maximum 10 feet from curb)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Availability of electrical power determined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Power location and feed coordination with utility company complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Power service with pole number and transformer number	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Confirm cabinet / service pedestal / electrical service equipment locations are constructible as shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Metered service pedestal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Utility pole or transformer number labeled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Confirm service load is available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal equipment meets clear zone requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Junction wells are appropriately located	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Junction wells, conduit and wire are correct size and type	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Conduit sizes accommodate fill requirements (26% maximum fill for new construction, 35% for modifications)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal preemption provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Numbering (including signs) is correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal legend matches plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Signs				
• Street name signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Route marker / shield assemblies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal warning signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Turn prohibitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ LTOR / RTOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Lane use control signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Remove Stop / Stop Ahead signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Pedestrian pushbutton and sign (oriented correctly)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Special sign layouts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Sign legend matches plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• New signal warning signs with NEW plaque and flags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signs on signal plans match signing plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



DELDOT TRAFFIC SIGNAL PLAN REVIEW CHECKLIST

	Yes	No	N/A	Comments
Pavement Markings				
• Arrow / Only for lane drops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Stop lines (perpendicular to curb)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Edgelines, centerlines, lane lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Turn bays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Crosswalks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Other markings per DE MUTCD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NEMA Phasing				
• Correct orientation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Solid / Dashed lines shown correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Notes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Pedestrian phases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Split phasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dimensions / Stationing				
• Pavement Markings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signals and Signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Detectors (presence and advanced)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Poles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Controller cabinet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Breaklines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Detectors				
• Detection included and applied properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Location of presence detection (2' behind stop line) is correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Location of system detection is correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Sizes and locations are correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Detector sleeves conduit for loops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Video detection equipment locations are correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Dilemma zone at correct distance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Geometrics				
• Stop line set back adequate distance for turning vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Crosswalk curb ramps are correctly located and ADA compliant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Pad or sidewalk provides access to pedestrian push button	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Detectable Warning Surfaces (DWS) are applied correctly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Maintenance of Traffic				
• Standards specified as needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



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	Yes	No	N/A	Comments
OTHER DESIGN CONSIDERATIONS				
• ADA requirements are met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Median disturbance is minimized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Design addresses environmental concerns (if present)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Design addressed unique construction problems (if present)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Design adheres to driver expectancy for the corridor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Equipment locations do not hinder maintenance activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Coordination has occurred with the Telecommunication Group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Other facilities within the project limits that require traffic signal devices (i.e. schools) are noted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Railroad signal interconnect is provided (if required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal is not in conflict with any utilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Special design considerations such as HIBs, pedestrians, preemption or interconnection are addressed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Signal will work as a system with the roadway, signing and marking design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Design is in accordance with Federal and DelDOT standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
UTILITIES				
• Overhead utility conflicts avoided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Underground utility conflicts avoided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Special signal poles detailed (if needed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Special pole foundations detailed (if needed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Utility relocations coordinated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
○ Utility relocation details provided (if required)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Overhead clearance callouts at cable crossing with signal structure are provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
RIGHT-OF-WAY				
• Adequate right-of-way is available for proposed pole locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Required right-of-way acquisitions are noted (if needed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
• Easement for special purpose is noted (if needed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	