



KIVA #: _____ Project Name: _____

Street Transportation Department Drawing #: _____

Reviewed By: _____ Phone: _____ Date: _____

Professional Engineer: _____ Phone: _____

The purpose of this checklist is to offer comments on plan design for installation or modification of traffic signals and to set the minimum submittal requirements for traffic signal plans.

This checklist serves to minimize redline comments on the check prints and to maintain consistency among plan reviewers on plans for traffic signal equipment and related construction in the public right-of-way. Plan approval and issuing permits depend on compliance with the comments made on the check prints and this checklist. The Professional Engineer of record shall satisfy themselves of the completeness and accuracy of the design. A completed checklist must be attached to the traffic signal plans when submitted for first review. The following Certification Statement must be signed by the Professional Engineer of record certifying that all applicable requirements on this checklist have been met.

For guidelines related to this checklist, please see the following link:
<https://www.phoenix.gov/streets/reference-material/autoCADhelp>

CERTIFICATION

I CERTIFY THAT THE REFERENCED PLANS COMPLY WITH ALL APPLICABLE CITY ORDINANCES AND STANDARDS, INCLUDING FEDERAL, STATE AND COUNTY REQUIREMENTS AND REGULATIONS. IN ADDITION, I CERTIFY THAT THIS CHECKLIST HAS BEEN COMPLETED ENSURING ALL ITEMS LISTED ARE PROPERLY ADDRESSED. I UNDERSTAND THAT IF I FAIL TO ADDRESS ALL APPLICABLE ITEMS IN THIS CHECKLIST, THE PLANS MAY BE IMMEDIATELY RETURNED TO ME WITHOUT ANY FORMAL REVIEW BEING PERFORMED.

Professional Engineer's Name: _____

Professional Engineer's Signature: _____ Date: _____

Please complete and return this checklist and the check prints with each submittal. Discussion of redline comments on plans or this checklist should be directed to the plan reviewer listed above.

Professional Engineer of record must fill out all boxes in the first two columns as either (Addressed) or (Not Applicable).

Civil plan reviewer shall check the second column as (Required) when requirements have not been properly addressed.

GENERAL REQUIREMENTS:

ENG NA RVW

- Submitted engineered plans shall consider the reconstruction of one or more corners when modifying a signalized intersection.
- Setup a field review meeting with the Signal Shop at least seven days prior to start of design at (602) 262-6733.
- Obtain most current standard details, drawing template, and AutoCAD standards from the Street Transportation Department (602) 256-3409.
- Set up a pre-job meeting prior to start of construction at (602) 262-6733. Please invite the following: Contractor, Planning & Development Inspector, Traffic Signal Inspector, Traffic Signal Supervisor and city of Phoenix Utility Inspector.
- Block symbols shall be current city of Phoenix AutoCAD standards specifications and Design Procedure Manual (<http://phoenix.gov/STREETS/designman.pdf>).
- Sheets are to be 24" X 36"; submit two (2) sets of traffic signal plans. These sets will include an underground foundation sheet, above ground equipment sheet, and the appropriate standard detail sheets.

Note: If submitting through the Electronic Plan Review system, multiple copies of submittal documents are not required.

- Include an electronic file with the most up to date AutoCAD version possible with every submittal.
- All sheets shall have the Civil Engineer's Arizona registration seal and original signature prior to plan submittal.
- Provide a city of Phoenix standard project title block with name and address of project utilizing the city of Phoenix, Street Transportation Department standard title block. Contact (602)256-3409 to obtain the most up to date drawing template.
- Indicate plan types:
 - Conduit and Junction Box Plan
 - Traffic Signal Modification
 - New Traffic Signal

- | ENG | NA | RVW | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide plans on reproducible media for submittal. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | City of Phoenix Street Transportation Department layer standards must be maintained per current AutoCAD standards (Use city of Phoenix, Street Transportation Department standard AutoCAD template). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | City of Phoenix Street Transportation Department line types must be used per the current AutoCAD standards (Use city of Phoenix, Street Transportation Department standard AutoCAD template). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | City of Phoenix Street Transportation Department Traffic Signal Template must be used. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide the appropriate processing numbers including: KIVA#, CCPR# or CSPR#, SDEV#, Street Transportation Department Drawing # and city Quarter Section Number in lower right corner. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide the Professional Engineer's name, address, and telephone number. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show dimensions for face of curb (FOC) on all intersection street legs per the current city of Phoenix standards. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show dimensions for ROW on all intersection legs per the current city of Phoenix standards. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show dimensions for required new traffic control easements per the current city of Phoenix standards. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide a copy of ctb plot file with every submittal. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Use the city of Phoenix provided template which includes the following: <ul style="list-style-type: none">• Standard North Arrow (STB069), with a scale factor of 1, to be placed in lower right corner of drawing. On the signal plan north is always up.• Title block and signature block.• Preset viewports in paper space.• Layers, linetypes, and some blocks.• Standard dimension styles. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Obtain the most up to date traffic signal notes (602)256-3409. |

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| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Locate the intersection drawing in the city of Phoenix current coordinate system. To accomplish this and for the updated right-of-way lines, obtain a copy of the appropriate quarter section(s). (602)256-3409. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Contact the city of Phoenix Street Transportation Department for a copy of existing signal plans if available, otherwise the intersection will need to be redrawn. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Power run must be installed per APS or SRP standard specifications. Existing power service pedestal and control cabinet location is to be provided by the Street Transportation Department. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Obtain and show the proposed power address from the Street Transportation Department (602) 256-3409, once the power service pedestal location has been determined. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All signal drawing plots will be plotted at a scale of 1" = 20'. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The City may require right-of-way for tapers, construction easements, traffic control easements, and temporary turnarounds. If this right-of-way is not included on plat or map of dedication, it will need to be dedicated by a separate instrument. Call (602) 262-6733 for information on separate dedications. These items should be submitted as soon as possible. A minimum of six to eight weeks is required for processing and no right-of-way permits will be issued until dedication is complete. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Regardless of the number of corners affected by the proposed project, the entire intersection must be shown on the plans. All work related to construction or reconstruction of the signalized intersection is the responsibility of the developer. |

FOUNDATION SHEET REQUIREMENTS:

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show all existing traffic signal conduit and junction boxes that will remain. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do not show all existing conduit and junction boxes that will be removed by this project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show all existing and proposed underground utilities. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do not show existing underground utilities that will be removed by this project. |

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| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If a conduit plan is being created, the title block shall read: (line 1) CONDUIT & JUNCTION BOX PLAN, (line 2) intersection description, (line 3) FOUNDATION. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If a modification signal plan or a new signal plan is being created, the title block shall read: (line 1) SIGNAL PLAN, (line 2) intersection description, (line 3) FOUNDATION. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If a conduit plan is being created, run conduit across roadway or match existing conduit. All splices must be approved by the Street Transportation Signal Section. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Foundation location shall be determined per the Street Transportation Department Design Procedure Manual or as specified by the Street Transportation Traffic Signal Engineer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place proposed foundations on the "C-TRAF-POLE" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place existing foundations on the "C-TRAF-POLE-EXST" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place existing foundations to be removed on the "C-TRAF-POLE-EXST-REMOVAL" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place proposed junction boxes on the "C-TRAF-FNDN-JB" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place existing junction boxes on the "C-TRAF-FNDN-JB-EXST" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place proposed conduit runs by size on the appropriate layer "C-TRAF-FNDN-2-COND" layer. The # in the layer name represents the conduit size. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place existing conduit runs by size on the appropriate layer "C-TRAF-FNDN-2-COND-EXST" layer. The # in the layer name represents the conduit size. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No. 7 junction box must be installed on the corner where the proposed power is located. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No. 5 junction boxes must be installed on the remaining three corners. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All main junction boxes shall be connected by 2 - 2½" schedule 40 gray PVC. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Main junction boxes to "A" pole and "LM" foundations shall be connected by 1 - 2½" schedule 40 gray PVC (unless otherwise specified). |

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Main junction box to mast arm pole foundation shall be connected by 2 - 2½" schedule 40 gray PVC at all intersections. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Main junction box to loop detector shall be connected by 1 – 2" schedule 40 gray PVC. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Power service pedestal shall be connected by 1 - 2½" schedule 40 PVC to #7 junction box, 1-2½" schedule 40 PVC to controller cabinet and one stub out. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Controller cabinet shall be connected by 4 - 2½" schedule 40 PVC to #7 junction box, 1-2½" schedule 40 PVC to PSP and one stub out. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide a power service pedestal (PSP) 5' from the controller cabinet unless otherwise specified by the Signal Shop. The location and orientation to be determined by the city of Phoenix signal shop representative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provide a controller cabinet if needed. Location and orientation to be determined by the city of Phoenix signal shop representative. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Number pole foundations sequentially, within a hexagon symbol (block "STB128"), starting with the foundation in the northwest corner and rotating around the intersection in a clockwise direction. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Number pull junction boxes sequentially, within a hexagon symbol (block "STB128"), continuing with the same number sequence used for the pole foundations in a clockwise direction around the intersection. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | In the "INSTALL" LEGEND, foundations and junction boxes must be referenced to the matrix. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show a matrix for the proposed foundations and junction boxes separately and a matrix for existing foundations and junction boxes separately. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | List the length of conduit in linear feet for each size of new conduit used in the intersection. Existing conduit will be listed in the install note but does not need a quantity. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Foundations to be removed shall be numbered within a square symbol (STB129) and listed under the "REMOVE" legend. |

EQUIPMENT SHEET REQUIREMENTS:

- | ENG | NA | RVW | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Striping at the intersection must match the overall project striping. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Existing equipment that will be removed by this project is not to be shown on the plans. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The title block shall read (line 1) SIGNAL PLAN, (line 2) intersection description, (line 3) EQUIPMENT. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place proposed equipment on the "C-TRAF-EQPT" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Place existing equipment on the "C-TRAF-EQPT-EXST" layer. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All the equipment shall be grouped and numbered, sequentially within a hexagon symbol (block STB128) for listing in the "INSTALL" notes. Each number will designate groups of identical equipment. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | List all equipment in the "INSTALL" legend per the Street Transportation Department Design Procedure Manual. |

PAPER SPACE REQUIREMENTS:

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | North arrow to be shown on all sheets and north shall point up. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Use Stylus BT text style. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show all street names, dimensions and roadway line work in model space. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Seal plans in the provided space on all sheets. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Show the Bluestake stamp is shown in paper space of all sheets. |