

City of Omaha
Public Works Department
Traffic Engineering Division
Traffic Signal Removal Process Policy

Existing traffic signals in the City shall be subject to a thorough review of their need whenever the location is affected by a design project or study, or as the City Traffic Engineer, City Engineer or Public Works Director dictates. Nationally accepted signal warrants, as outlined in the most recent edition of the Manual on Uniform Traffic Control Devices (MUTCD), shall be utilized. The following step-by-step process, beginning with an initial screening and ending with possible removal of traffic signal assets, shall be carried forward with oversight by a licensed Professional Civil Engineer in the State of Nebraska. If at any point criteria recommends against removal of the existing signal, then the remaining steps need not be carried through. The entire process shall be documented thoroughly by the Engineer regardless of subsequent removal. All steps and determinations in this process shall be guided by, and subject to, professional and discretionary engineering judgment.

- **Step 1. Initial Screening and Warrant Review** – Using the most recent available traffic count data, an existing signalized location that does not have a minor street leg carrying at least 2,500 vehicles per day OR does not have a minor street approach carrying at least 50 vehicles in the highest peak hour, will be evaluated for removal utilizing the following MUTCD warrants:
 - Warrant 1 – 8 Hour Volume
 - Warrant 2 – 4 Hour Volume (except delay)
 - Warrant 3B – Peak Hour Volume
 - Warrant 4 – Pedestrian 4 Hour Volume
 - Warrant 5 – School Crossings (except gaps)
 - Warrant 6 – Coordinated Signal System
 - Warrant 8 – Roadway Network

The signal should remain if at least one of the above signal warrants is met.

- **Step 2. Supplemental Review** – If a traffic signal does not meet the warrants from Step 1, then the Engineer shall collect and review additional data. Additional data and review may include:
 - Review MUTCD traffic signal warrants above with a second count (using an older count if the most recent was within last two years OR getting new/updated count). Signal should remain if a previous or new count meets at least one of the warrants.
 - Review MUTCD traffic signal warrants above with additional traffic count information to fill in any relevant gaps in data (mid-day, weekend, school traffic, etc.). Signal should remain if the additional count data meets at least one of the warrants.
 - Conduct site visit to observe peak hour traffic operations with traffic signal in operation. Utilize capacity analysis software to evaluate delays with proposed stop control. Signal should remain if excessive side street delay would be expected due to removal.
 - Measure available sight distance at the intersection and compare to AASHTO guidelines. Compare available sight distance to recommended intersection sight distance. Signal shall remain if stopping sight distance is not available and the sight obstruction cannot be removed.
 - Review crash history to determine if there are any safety benefits or risks to removing the signal. Signal should remain if crash review indicates the signal removal could introduce unwanted safety risk.

- **Step 3. Coordination with Mayor's Office** – Present to the Mayor recommendations for removal of traffic signals at locations that fail to meet warrants or safety related criteria after Step 2.
 - Gather input to address any concerns with the remaining steps in the removal process.
 - After presentation, the Mayor may, in the exercise of his or her policy discretion, recommend ending the signal removal process for any signal with a school crossing sign, upon providing a written notice to the Public Works Director.
- **Step 4. Coordination with City Council members and Community** – Present recommendations for removal of traffic signals at locations that fail to meet warrants or safety related criteria after Step 2, and were not school crossings recommended to remain by the Mayor in Step 3.
 - Gather input to address any concerns with the remaining steps in the removal process.
 - Provide advance notice of the proposed signal removal to the City Council member representing the district in which the signal is located. Working with the City Council member, identify and notify neighborhood groups, business groups, and community leaders with known activities adjacent to the signalized location of the proposed removal.
 - Conduct further outreach and/or review, as deemed reasonable by Public Works, to address common concerns identified by the various groups prior to moving on to Step 5.
- **Step 5. Turn-Off Period** – Remove power from traffic signal, bag signal equipment (as required by MUTCD), and install post-mounted stop-control signs in order to observe and document the intersection under stop-controlled (unsignalized) operations.
 - Observe unsignalized operations during relevant and applicable periods (peak hours, weekends, special events, mid-day, etc.) based on the surrounding land use and input from Steps 3 and 4.
 - Conduct delay and gap studies to evaluate Warrants 2, 3A, and/or 5, if necessary, as these warrants can only be evaluated under stop-controlled operations.
 - Review any crashes that occur during turn-off period.
 - Verify any public concerns brought to the attention of Public Works during the turn-off period.
 - This step must be followed for a minimum of two-months.

The signal should remain if at least one of the delay warrants is met, or if discretionary engineering judgment from observations or crash data indicate the signal should remain.

- **Step 6. Final Removal** - Remove traffic signal equipment at intersections with documented satisfactory conditions after Step 5 review.
 - Prior to removal, a signed memorandum must be presented to the Public Works Director, by a licensed Professional Civil Engineer in the State of Nebraska, documenting this traffic signal removal process and the recommendation for removal.
 - The Public Works Director then may sign his or her approval at the end of the memorandum, and order the removal, if appropriate using discretionary engineering judgment.

Important Note: Steps 4 through 6 are not required when a traffic signal is recommended for removal as part of a larger construction design project. Public engagement efforts during construction projects are standard practice to gather the concerns of the public and other community leaders. During most construction projects the appropriate time to remove a signal is when it is impacted by the construction activities. There is no time to observe post-construction conditions prior to the removal of the traffic signal. Recommendations for removal of traffic signals shall be documented in the project's traffic study or in a stand-alone memorandum by a licensed Professional Civil Engineer in the State of Nebraska.