

GUIDANCE DOCUMENT

NRCS, GA
June 2016

Lighting System Improvement, Code 670

I. References

- A. Design Criteria
 - 1. Georgia FOTG Section IV, conservation practice standard, Lighting System Improvement, Code 670.
- B. Design/Layout Surveys
 - 1. TR-62 Engineering Layout, Notes, Staking & Calculations.
 - 2. NEFH Part 650, Chapter 1, Engineering Surveys.

II. Documentation

- A. Preliminary Investigation

Make a preliminary investigation of the need and feasibility of the lighting system improvement(s) recommended by an on-site energy audit.
- B. Engineering Surveys
 - 1. The engineering survey will consist of the location of the proposed lighting system improvement and any structures that may be in support of or interfere with its installation.
 - 2. Note the location of any utilities or utility markers.
- C. Design
 - 1. Determine the lighting level and the modifications needed to provide the lighting intensity appropriate to the task.
 - 2. Develop engineering plans and specifications that describe the modifications to the system with sufficient detail. As a minimum the plans and specifications will include:
 - a. Work necessary to install the lighting system including bulbs, sockets, controllers, wiring, etc. Detail special installation techniques, materials, fixtures, covers, etc. necessary to properly install the practice.
 - 3. Details of appurtenances that support the improvement.
 - 4. Location of utilities and notification requirements.
 - 5. Develop a site specific O&M Plan for the practice.
- D. Construction Layout
 - 1. Review the plans and specifications with the landowner and contractor prior to the start of construction. Ensure the landowner/contractor thoroughly understand their responsibilities including obtaining all permits, easements, etc.
 - 2. Record layout data in the engineering field book or in the electronic field book.
 - 3. Stake the location of the proposed replacement or retrofit of equipment, if applicable.

III. Construction

- A. Adequate site visits and checks shall be made during construction to verify that the plans and specifications are followed.
- B. Any changes to the design during construction must be reviewed and concurred by the landowner and shall be approved by the designer and person with appropriate engineering design job approval authority.

IV. Construction Checkout

Record the following information on the plans, in the engineering field book or on NRCS-ENG-523A (or equivalent).

- 1. Bulb type, quality, number, spacing, output, etc.
- 2. Controller modifications as appropriate.
- 3. Wiring modifications as appropriate.
- 4. Prepare as-built drawings showing final details of the construction. Identify changes to the design by drawing with red ink.

5. If the practice meets NRCS standards and specifications, then the statement "This practice meets NRCS practice standards and specifications" shall be placed on the checkout document and signed and dated by the responsible person with appropriate level of engineering job approval authority.

V. Reporting and/or Certifying

After it has been determined and documented that the practice meets NRCS plans and specifications, it can be reported and certified. The extent of the practice to be reported is the number of on-farm equipment efficiency improvements installed. The extent of the practice to be certified is the quantities used as the basis of payment.