

STATEMENT OF WORK
Building Envelope Improvement (672)

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design documentation that will demonstrate that the criteria in NRCS practice standard have been met and are compatible with other planned and applied practices
 - a. Practice purpose(s) as identified in the conservation plan
 - b. List of required permits to be obtained by the client
 - c. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06)
 - d. List of facilitating practices
 - e. Practice standard criteria related computations and analyses to develop site-specific plans and specifications meeting each energy efficiency upgrade type including but not limited to:
 - i. Method for disposal and/or utilization of by-products
 - ii. Insulation R-value
 - iii. Building U-value
 - iv. Energy Star rating of doors or windows
 - v. Additional performance rating values for all installed components
 - vi. Kilowatt, BTU, or fuel reduction information
 - vii. Targeted emission and source and GHG reductions calculations as needed
 - viii. Hydraulics and Appurtenance Design
 - ix. Site assessment for wildlife considerations
 - x. Materials
 - xi. Vegetation
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the requirements to install the practice and obtain necessary permits
3. Design Report and Inspection Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32).
4. Operation and Maintenance Plan
5. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Part 505, Subpart A, 505.3B, Site-Specific Plans and Specifications.)
6. Design modifications during installation as required

INSTALLATION

Deliverables:

1. Pre-Installation conference with client and contractor
2. Verification that client has obtained required permits
3. Installation guidance as needed
4. Staking and layout according to plans and specifications including applicable layout notes
5. Installation inspection (according to inspection plan as appropriate)
 - a. Actual materials used (Part 512, Subpart D Quality Assurance Activities, 512.33)
 - b. Inspection records
5. Facilitate and implement required design modifications with client and original designer
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation
7. Certification that the installation process and materials meets design and permit requirements. (NEM, Part 505, Subpart A, 505.3C, Site Specific Installations.)

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CHECK OUT

Deliverables:

1. As-Built documentation.
 - a. Extent of practice units applied, including energy reduction information
 - b. Actual materials used
 - c. Drawings
 - d. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM, Part 505, Subpart A, 505.3C, Site Specific Installations.)
3. Progress reporting

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Renewable Energy System, 716
- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard Farmstead Energy Improvement - 374
- NRCS National Engineering Manual (NEM).
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook
- ANSI/ASAE EP406.4 JAN2003 (R2008) Heating, Ventilating and Cooling Greenhouses
- U.S. Environmental Protection Agency Combined Heat and Power Partnership Catalogue of CHP Technologies
- ASAE EP294.3 SEP2003 (R2009) Computing Electrical Demands for Farms
- ANSI/ASAE S401.2 FEB1993 (R2008) Guidelines for Use of Thermal Insulation in Agricultural Buildings
- ASABE EP344.3 JAN2005 (R2010) Lighting Systems for Agricultural Facilities
- ANSI/ASABE AD3918:2007 (JAN2011) Milking Machine Installations—Vocabulary
- ASABE S565 OCT2005 (R2011) Agricultural Ventilation Constant Speed Fan Test Standard
- ASAE EP566.1 AUG 2008 Guidelines for Selection of Energy Efficient Agricultural Ventilation Fans
- ASABE Paper Number:1110481 Dairy Farm Energy Audit Calculator and Reporting Tool
- ASAE EP496.3 FEB2006 (R2011) Agricultural Machinery Management