

## ILLINOIS STATEMENT OF WORK

### Vertical Drain (630)

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

## DESIGN

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### Deliverables:

1. Design documents that demonstrate criteria in practice standard have been met and are compatible with 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 (Title 210-National Engineering Manual (NEM), Part 503 Subpart A, Engineering Activities Affecting Utilities, Sections 503.0 through 503.6)
  - d. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
    - i. Hydrology/Hydraulics, including drainage area determination
    - ii. Hydrogeology, including graded filter design as appropriate (210-NEM, Part 531, Subpart E, Hydrogeologic Investigations)
    - iii. Documentation of aquifer characteristics, geology, and history of site relative to sources of potential contamination, such as nutrient and pesticide application, septic systems, chemical storage facilities, landfills, roads, animal waste storage or treatment facilities, or naturally occurring sources of contamination.
    - iv. Sediment Removal
    - v. Materials
    - vi. Environmental Considerations (e.g. water quantity and quality)
    - vii.
2. Written plans and specifications including sketches and drawings must be provided to the client that adequately describe the requirements to install the practice and obtain necessary permits, including but not limited to:
  - a. Location Map with legal description
  - b. Plan View drawing showing the location of the practice to be constructed, and relevant benchmark elevations and descriptions
  - c. Detail drawing showing a cross section of the vertical drain
  - d. Construction Material specifications
  - e. Specifications for vegetative establishment
  - f. Construction notes as needed to clarify components and provide directions for installation
  - g. Utility safety statement requiring notification of the Illinois One-Call System prior to construction.
  - h. Additional notes as necessary to identify avoidance and protection areas and boundaries associated with cultural resources, threatened or endangered species, or other resources needing temporary protection during installation.
  - i. Signature/initials and date for design and design check. Design check to be completed by an individual other than the designer
3. Design Report and Inspection Plan as appropriate (M\_210\_NEM\_511\_B- Design, Documentation, 511.11) and (210-NEM, Part 512, Subpart D, Construction, Quality Assurance Activities, Sections 512.30 through 512.32).
4. Operation and maintenance plan developed in accordance with the requirements of IL NRCS conservation practice standard 630, Vertical Drain.
5. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (210-NEM Part 505, Subpart A, Section 505.3).
6. Design modifications during installation as required

## INSTALLATION

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### Deliverables

1. Preconstruction conference with client and contractor (NEM Part 512, Subpart B, IL 512.13(d)).
2. Verification that client has obtained required permits
3. Staking and layout according to plans and specifications including applicable layout notes
4. Installation inspection

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- a. Actual materials used (210-NEM, Part 512, Subpart D, Construction Quality Assurance Activities, Section 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.

**CHECK OUT**

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**Deliverables**

1. As-built documentation
  - a. Extent of practice units applied
  - b. Documentation of materials installed (i.e. concrete tickets, seed tags, etc.)
  - c. As-built plan is required when a significant change in design occurs during construction or when the job is designated Class V or higher. Identify "As Built" on plan. Superimpose changes on the as-built plan using a different color or otherwise clearly differentiating the as-built dimensions.
  - d. For practices not requiring an as-built plan, survey notes or checkout sheets documenting critical dimensions, elevations, and materials are sufficient.
  - e. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (210-NEM, Part 505, Subpart A, Non-NRCS Engineering Service, Section 505.3.C.(1))
3. Progress reporting

**REFERENCES**

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- Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Vertical Drain, 630.
- National Engineering Manual
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook