

ILLINOIS STATEMENT OF WORK
Grassed Waterway (412)

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

DESIGN

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 (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06)
 - d. NRCS Job Class as identified on IL-ENG-35.
 - e. A list of facilitating practices (example – Subsurface Drain, 606 and Grade Stabilization Structure, 410)
 - f. Practice standard criteria related computations and analyses to develop plans and specifications including but not limited to:
 - i. Soil suitability (including but not limited to topsoil depth, need for drainage)
 - ii. Design Survey
 1. Field survey notes shall conform to NEM Part 540 and present legible, clear and concise data. Include a hard copy of the raw data and reduced survey if using an electronic data collector.
 2. Include temporary benchmark elevations, descriptions, and locations.
 3. Minimum survey required – Centerline of waterway profile every 100 ft. and a cross section at least every 300 ft.
 - iii. Hydrology Data, including but not limited to:
 1. Drainage area
 2. Runoff curve number
 3. Watershed average slope
 4. Watershed hydraulic length
 5. Design storm(s) return period and peak flow
 - iv. Hydraulics calculations showing that the required design criteria are met. For a minimum standard design waterway, document how the site meets the criteria for the minimum standard design.
 - v. Documentation to demonstrate that the design elevations and cross sections will fit the site. This can be done using a profile of the waterway showing control points along the length, or with cross section plots at regular intervals.
 - vi. Outlet capacity and stability
 - vii. Seedbed preparation, soil amendments and vegetation requirements according to conservation practice standard Critical Area Planting (Code 342).
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. Plans and specification shall be developed in accordance with the requirements of conservation practice standard Grassed Waterway (Code 412). Plans must include, but not limited to:
 - a. Location map with legal description
 - b. Plan view drawing showing the layout and stations of the practice to be constructed, and relevant benchmark elevations and descriptions. Show locations of critical features on the plan view, as needed to clearly describe how the constructed practice should look.
 - c. Dimensions of the waterway, including length, grades, typical cross section shape, top width, bottom width, depth, and side slopes as applicable.
 - d. Profile of the waterway showing elevations and grades.
 - e. Typical cross sections of the waterway, if needed to show how the required waterway dimensions will fit the landscape.
 - f. Disposal requirements for the excess soil material
 - g. Detail drawings for features such as fabric or rock checks, stilling basins, or trickle flow collectors.
 - h. Table of quantities
 - i. Construction and material specifications
 - j. Construction notes as needed to clarify components and provide directions for installation

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- k. Utility safety statement requiring notification of the Illinois One-Call system prior to construction.
 - l. 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 construction.
 - m. Signature/initials and date for design and design check. Design check to be completed by an individual other than the designer.
3. Operation and maintenance plan developed in accordance with the requirements of IL NRCS Conservation Practice Standard 412, Grassed Waterway.
 4. Certification that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03 (a) (3)).
 5. Design modifications during installation as required

INSTALLATION

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
 - a. Actual materials used
 - 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/RECORDS OF IMPLEMENTATION

Deliverables

1. As-built documentation
 - a. Extent of practice units applied
 - b. 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.
 - c. For practices not requiring an as-built plan, survey notes documenting critical dimensions, elevations, and materials are sufficient.
 - d. Final quantities
2. Certification that the installation meets NRCS standards and specifications and is in compliance with permits (NEM Subpart A, 505.03 (c) (1)).
3. Progress reporting

REFERENCES

- Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard –Grassed Waterway, 412
- National Engineering Manual
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook