

STATEMENT OF WORK

USDA, Natural Resources Conservation Service
Wisconsin

DENITRIFYING BIOREACTOR (605)

DESIGN (911)

Deliverables:

1. Design Survey – The following information should be obtained and recorded in the field notes:
 - a. Topographic information
 - b. Soils investigations
 - c. Location of existing tile lines
2. Design Data – The following information should be recorded in the design notes:
 - a. Tile flow from the drainage area
 - b. Analysis of soil and geologic data
 - c. Bioreactor sizing computations
 - d. Design reduction of nitrogen content
 - e. Tile flow diversion structure design
 - f. Inlet and outlet piping details
 - g. Identification of carbon medium source
 - h. Quantity computations
 - i. O&M plan
 - j. Cost estimate
 - k. Quality assurance plan
3. Drawings and Specifications – The conservation practice standard may contain a list of required items for inclusion in the plans and specifications. Typical contents include:
 - a. Location map
 - b. A plan view of the layout of the reactor and diversion structure for tile water
 - c. Cross sections of the reactor
 - d. Measures to protect reactor from farm equipment (i.e. fence)
 - e. Piping details and elevations
 - f. Carbon medium material description
 - g. Site specific construction requirements
 - h. Construction and material specifications
 - i. Vegetation establishment requirements
 - j. Quantities
 - k. Quality assurance plan
4. Certification that the design meets practice standard criteria and complies with applicable laws and regulations (NEM Part 505, Non-NRCS Engineering Services)

INSTALLATION (912)

Deliverables:

1. Documentation of pre-construction conference with client and contractor
2. Verification that client has obtained required permits
3. Layout Survey Notes – The following information should be recorded in the field notes:
 - a. Location and alignment stakes
 - b. Grade stakes with offset reference stakes
 - c. Location of all appurtenances
 - d. Protection measure location
4. Compliance Checks – The complexity of the project will dictate the need for compliance checks during construction. All surveyed compliance checks shall be recorded in the field notes. Narratives of compliance checks shall be entered on a sheet in the field notes or the job diary. Compliance checks should include:
 - a. Material requirements according to the construction plan
 - b. Cross sections
 - c. Required elevations
 - d. Adequacy of vegetation establishment
 - e. Maintaining a job diary with the dates and record of inspections made, testing completed, instruction provided to the contractor, etc., to document compliance with standards and specifications
5. Facilitate, implement, and document required design modifications with client, original designer, permitting and funding agencies
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 meet design and permit requirements

CHECKOUT (913)

Deliverables:

1. As-Built Documentation – As-Built documentation shall include:
 - a. As-Built plans showing all significant changes in linear measurements, alignment or design changes
 - b. The final quantities must be shown on the as-built drawing
 - c. Signed statement that the installed practice meets NRCS standards and specifications
 - d. Survey field notes
 - e. Job diary
 - f. Material compliance data
 - g. Photo of completed practice and any components
 - h. Practice location placed on the conservation plan map

2. Provide the following information to the NRCS field office servicing the relevant land unit for entry into the Performance Results System (PRS):
 - a. Technical Service Provider name
 - b. Customer name
 - c. USDA program funding the practice (if known)
 - d. Location of work (state, county, conservation district, land tract identifier)
 - e. Land use of field where the practice was installed (cropland, etc.)
 - f. NRCS practice name and quantity of practice installed in appropriate unit

REFERENCES

- WI NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard 605, Denitrifying Bioreactor.
- National Engineering Handbook, Part 624, Section 16, Drainage
- NRCS National Engineering Handbook (NEH), Part 650, Chapter 14, Water Management (Drainage)
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook

CERTIFICATION OF COMPLETION

DENITRIFYING BIOREACTOR (605)

PROGRAM PARTICIPANT INFORMATION

Name (print): _____

TECHNICAL SERVICE PROVIDER INFORMATION

Name (print): _____

TSP ID Number: _____ Expiration Date: _____

TECHNICAL SERVICE PROVIDED

Design (911)

Installation (912)

Checkout (913)

I hereby certify that the technical services I provided as a Technical Service Provider for this component(s) checked above: (1) comply with all applicable Federal, State, Tribal, and Local laws and requirements, (2) meets applicable USDA NRCS conservation practice standards, specifications, and program requirements, (3) are consistent with and meet the particular conservation program goals and objectives, (4) that I have provided the above named Program Participant the Deliverables in this Statement of Work for this component, and (5) comply with all "Certification Terms" as identified in the Technical Service Provider Certification Agreement.

Technical Service Provider Signature

Date