

Minnesota Public Drainage Manual

Chapter 3 – Engineering and Environmental Considerations - Sections VIII to XII

VIII. Redetermination of Benefits

Summary

The process for reevaluating benefits and damages to reflect present day land values or add or remove benefitted or damaged lands may be conducted under the Redetermination of Benefits provisions of the drainage law. Although the redetermination of benefits are conducted by appointed viewers (see **Chapter 2**) the engineer may be required or appointed to complete some tasks in conjunction with these proceedings. **Chapter 3, Section VIII** provides additional detail regarding the engineer's role within a redetermination of benefits proceeding.

The Redetermination of Benefits provisions of Drainage Law allow the drainage authority to re-evaluate benefits and damages in order to reflect present day land values or to add or remove benefitted or damaged lands. The Redetermination of Benefits can be accomplished with or without a project. If it occurs with a project (Repair or Improvement), the engineer's task will be as described in **Sections IV** or **Section VII** of this chapter. If the Redetermination of Benefits occurs without a project, then the engineer's only task will be to work with the viewers and provide them with any requested technical information.

To reiterate: In a proceeding to repair a drainage system, if the engineer determines or is made aware that property that was not assessed for benefits for construction of the drainage system has been drained into the drainage system or has otherwise benefited from the drainage system, the engineer shall submit a map with the repair report. The map must show all public and private main ditches and drains that drain into the drainage system, all property affected or otherwise benefited by the drainage system, and the names of the property owners to the extent practicable.

Since a Redetermination of Benefits proceeding involves the appointment of viewers or appraisers, a grass buffer strip must be provided for in accordance with [Minn. Stat. § 103E.021](#). This usually results in the acquisition of right-of-way along one or both sides of the existing ditch.

IX. Consolidation of Drainage Systems

Summary

Drainage systems may be combined or divided (consolidated) for more efficient administration.

After benefits and damages have been determined for the drainage system, the drainage authority may combine two or more systems, or divide one system into two or more systems. The purpose of this proceeding is for more efficient administration. The consolidation proceeding may occur with or without a project. If the proceeding occurs with a drainage project or petitioned Repair, then the engineer's task will remain as described in **Section IV** or **Section VII** of this chapter. If the proceeding occurs without a project, then the engineer's only task will be to provide maps and technical advice if requested.

X. Construction Plans and Specifications

Summary

Complete (signed) construction plans and specifications are typically ordered by the drainage authority after the hearings are completed and an order and finding of fact to establish a project has been issued.



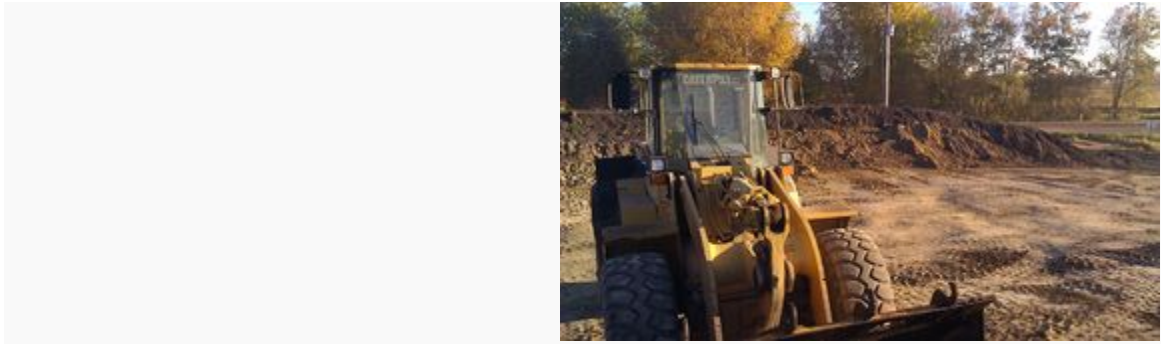
Plans and specifications serve as the guidelines for a contractor to build the project efficiently and with little technical difficulty.

After all the hearings for a proposed drainage project are completed, and the drainage authority has issued an order and findings of fact to establish a project, the engineer is normally directed to develop complete construction plans and specifications. The plans and specifications shall be of sufficient detail that a contractor will be able to build the project efficiently and with little technical difficulty. The plans and specifications must be signed by a professional engineer licensed to practice in the State of Minnesota.

XI. Construction

Summary

The contractor responsible for construction is responsible to implement the project as designated on project construction plans and specifications. The project engineer may be required by the drainage authority to supervise, inspect, and/or observe construction to ensure compliance.



The contractor is responsible to complete the drainage project in accordance with the plans and specifications developed by the engineer.

The contractor is responsible to complete the drainage project in accordance with the plans and specifications developed by the engineer. To ensure compliance with the plans and specifications, the drainage authority shall require the engineer to supervise and inspect the construction under contract. The drainage authority shall cause the contracts under this chapter to be performed properly. See [Minn. Stat. § 103E.521](#).

A construction observer is responsible to make sure that all provisions of the contract are satisfied including any permit requirements. If any deficiencies, deviations from the plans, or violations of permit requirements are noted, the construction observer must immediately notify the contractor, drainage authority, and engineer.

The engineer should periodically check the grade, alignment, side slopes, and other aspects of the proposed project during construction. Additionally, [Minn. Stat. § 103E.295](#) requires the engineer to "revise the plan, profiles, and design of structures to show the drainage project as actually constructed on the original tracings." This is information contained within record or as-built drawings.

Summary

Records regarding public drainage system projects and proceeding must be readily available to the public **Chapter 3, Section XII, A** provides recommendations and requirements for the establishment of record drawings.

If historic records have been lost, destroyed, or incomplete, the drainage authority may complete proceedings to re-establish the public drainage system record. This process is outlined in **Chapter 3, Section XII, B**.

A. Record Drawings

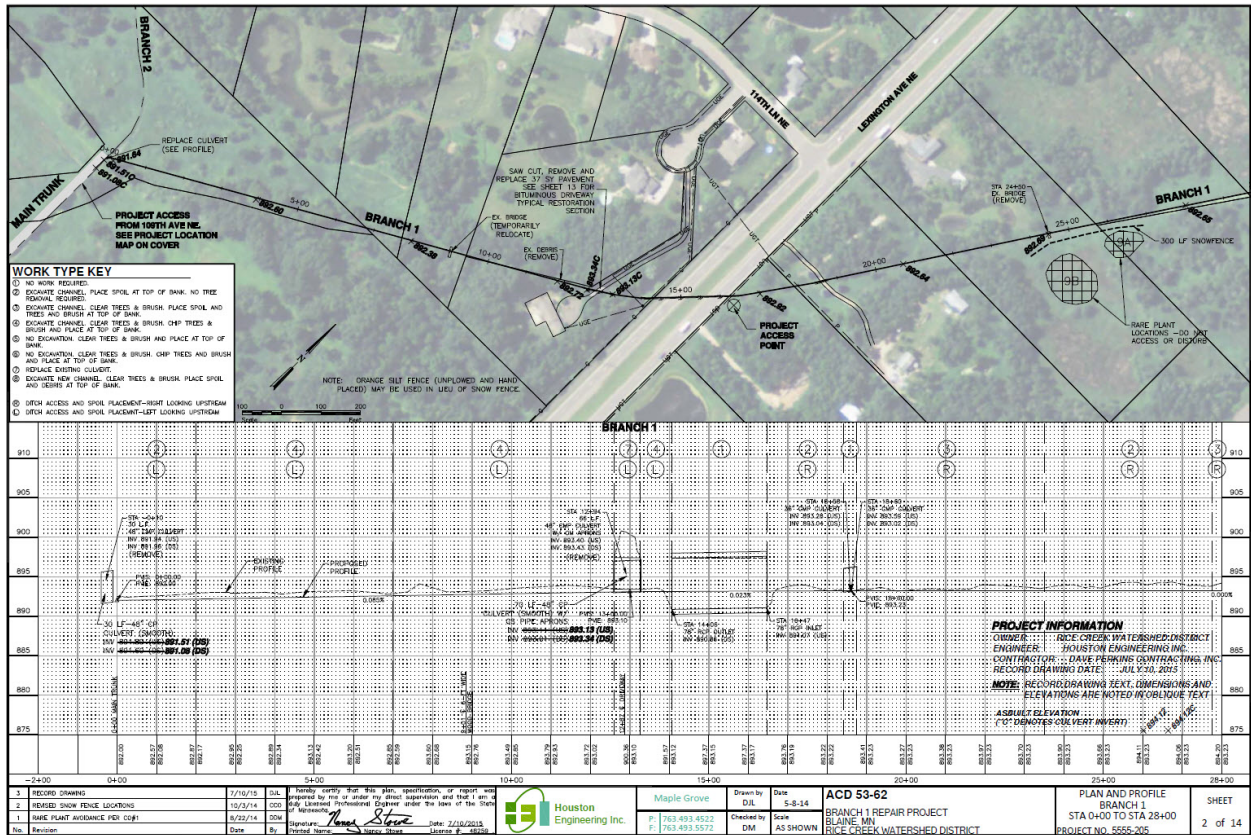
All maps, plats, charts, drawings, plans, specifications, and other documents that have been filed, received in evidence, or used in conjunction with a drainage proceeding or during construction are subject to the provisions on public records.

These documents must:

- Be uniform;

- Be marked to identify the proceeding by the drainage project and system number;
- Show the name of the person preparing the sheet; and
- Show the date the sheet was prepared.

In addition to the above, the engineer should index all drawings. All changes made during construction that reflect on the project features should be noted on the original set of drawings. In addition, a permanent project benchmark system should be established at strategic points throughout the project. In this way, future Repair investigations will be limited and less costly. After all changes have been shown of the drawings, the drawings then become "record drawings and are permanently maintained by the drainage authority." The drainage authority (auditor or secretary of a watershed district, as appropriate) must forward a copy of the record drawings to the director, Division of Ecological and Water Resources, DNR (see [Minn. Stat. § 103E.295](#)).



B. Re-Establishment of Public Drainage Records

Because many public drainage systems were established prior to electronic record keeping and modern record retention standards, numerous public drainage system records have been lost, destroyed, or are incomplete. "The procedure for reestablishing drainage system records must involve, at a minimum, investigation and a report of findings by a professional engineer licensed in Minnesota supported by existing records and evidence, including, but not limited to, applicable aerial photographs, soil borings or test pits, culvert dimensions and invert elevations, and bridge design records. The existing and reestablished records together must define the alignment; cross-section; profile; hydraulic structure locations, materials, dimensions, and elevations; and right-of-way of the drainage system." [Minn. Stat. §](#)

[103E 101 Subd. 4a](#). The process of determining the historic profile is discussed in greater detail in **Section VII** of this chapter.

Examples of engineer's reports in support of reestablishment of the public drainage system record (also referred to as a "historical review") can be found in **Appendix 14**.