

Utilities Manual **(2007)**

Table of Contents **(with construction notes)**

GLOSSARY

INTRODUCTION

- I. General
- II. Districtwide Utility Meetings

“Project managers and representatives from the Construction Group, District Permits Office, Office of Bridges and Structures, and the Utility Agreements and Permits Unit attend these meetings.”

- III. Manual Overview

ROLES AND RESPONSIBILITIES

- I. General
- II. Mn/DOT Central Office Functions
 - A. Utility Agreements and Permits Unit
 - 1. Utilities Engineer
 - 2. Utility Agreement Writers

“They prepare and send all Notice and Orders and they prepare and process utility relocation agreements.”

- 3. Utility Permit Writers

“Permit Writers review and process all applications for long-form utility permits to install permanent facilities on trunk highway right of way. They suggest changes to applications if necessary, and issue permits with special provisions.”

- B. Municipal Agreements Unit
 - 1. Municipal Agreements Engineer
 - 2. Municipal Agreement Writers

“They verify that elements of a construction project comply with Mn/DOT’s Policy and Procedure for Cooperative Construction Projects with Local Units of Government and write the municipal agreements with the coordination and assistance of the project manager.”

- C. Office of Contract Management
- D. Office of Land Management

E. Office of Bridges and Structures

III. Mn/DOT District Functions

- A. District Engineers and Assistant District Engineers
- B. Project Manager

“The project manager is the individual who is responsible for the overall project during the plan development process, or the individuals who are responsible for a particular stage of project development in the plan development process.”

C. Construction Group

“The Construction Group is responsible for assisting with the review of utility relocation plans and coordinating the placement and relocation of utilities during construction. They are also responsible for the daily inspection of work to ensure its compliance with plans and specifications and for monitoring progress as a means for justifying payment. The Construction Group includes Construction Resident Engineers, Construction Project Engineers, Field Engineers, Inspectors, and Field Crews.”

- D. Right of Way/Land Management
- E. Surveys
- F. Permits

IV. Non-Mn/DOT Functions

- A. Legal Counsel
- B. Gopher State One Call (GSOC)
- C. Government Agencies
- D. Utility Owners

“Utility owners are responsible for verifying their facilities on preliminary plans, reviewing plans, participating in design and related meetings, submitting relocation plans and schedules, and coordinating their relocation work with Mn/DOT and its contractors.”

LAWS, RULES, AND REGULATIONS

- I. General
- II. Federal Laws and Regulations for Federal-Aid Highways

- A. Federal Laws
 - 1. 23 U.S.C. 109 (I)
 - 2. 23 U.S.C. 123
- B. Federal Regulations
 - 1. Subpart A of Part 645
 - 2. Subpart B of Part 645
 - 3. Other Guides

III. State Laws and Rules

- A. Minnesota State Constitution
- B. Minnesota Statutes
- C. Minnesota Rules

“Minnesota Rules, parts 8810.3100 through 8810.3600 deal with the utility permit process, standards for work conducted under permit, aerial lines, and underground lines.”

Note: MN Rule 8810.3300, Subp 3. contains the language that requires the Notice and Order with the specific completion date and the 15 day follow up to the Notice and Order.

PROJECT CATEGORIES FOR ABBREVIATED PROCESS APPLICATION

- I. General
- II. Project Categories
 - A. Projects with Less Than 12-Month Timeframe
 - B. Stand-Alone Bridge Replacement, Bridge Removal, and Bridge Renovation or Repair Projects
 - C. Projects with No New Right of Way
 - D. Projects Where In-Place Utility Facilities Will Not Be Affected
 - 1. Projects Requiring No Excavation or Mill and Overlay Projects
 - 2. Projects Requiring Excavation, Where the Exact Location of the Work is Determined in the Field
 - 3. Projects Requiring Excavation for Work with Little Latitude for Adjustment in the Field
- III. Meetings Required By Law

STEP 1: UTILITY IDENTIFICATION FOR CONSTRUCTION PROJECTS

- I. General
- II. Components
 - A. Gopher State One Call
 - B. Utility Owners
 - 1. Initial Contact
 - 2. State Facilities
 - 3. Utility Identification Letter
 - C. Field Review
 - D. Survey of Overhead and Underground Utility Facilities
- III. Other Sources of Information
- IV. Subsurface Utility Engineering (SUE)
 - A. Description
 - B. Use
- V. Communication of Utility Information

- A. Non-Excavation Projects
- B. Excavation Projects

STEP 2: UTILITY CONTACT FOR COORDINATION

- I. General
- II. Easement Questionnaire
- III. Plans for the Utility Information Meeting

STEP 3: UTILITY INFORMATION MEETING

- I. General

“The Utility Information Meeting, which typically occurs when construction plans are 20 to 45 percent complete, is an opportunity for Mn/DOT and utility owners to learn as much as possible from each other about how the project may affect utility facilities.”

- II. Utility Information Meeting

- A. Meeting Purpose

“The project manager uses the Utility Information Meeting to obtain and share information early in the design process. Participants review information in the utility information plans.”

Note: Construction should use the utility information meeting to begin to determine which segments of utilities will be moved ahead of the contract and which segments will be moved concurrently with construction.

- B. Meeting Scheduling
- C. Meeting Notification
- D. Meeting Preparation
- E. Meeting Participation
 - 1. All Transportation Projects
 - 2. Projects That Impact Bridges
- F. Meeting Facilitation
- G. Meeting Minutes

STEP 4: REVIEW OF INFORMATION FROM UTILITY OWNERS

- I. General
- II. Information from Utility Owner
 - A. Review of Utility-Marked Plans
 - B. Corrections
 - C. Alternatives
- III. Right of Way

STEP 5: UTILITY DESIGN MEETING

I. General

“The Utility Design Meeting brings together all involved parties to focus on finding solutions to place utility facilities within a project while maintaining good, economic design. It takes place sometime between 60 and 75 percent plan completion. The project manager prepares for and facilitates the meeting, and documents its results.”

Note: Construction should use the utility design meeting to determine which segments of utilities will be moved ahead of the contract and which segments will be moved concurrently with construction.

II. Plans for Utility Design Meeting

A. Utility Tabulation Sheet

Note: the construction contract should also clearly indicate to Mn/DOT’s contractor which utility segments will be moved ahead of construction and which segments will be moved concurrently with construction.

B. Mn/DOT-Owned Facilities

III. Utility Design Meeting

A. Meeting Purpose

“At the meeting, Mn/DOT representatives and utility owners discuss design modifications to mitigate or minimize utility relocations while maintaining design integrity. At this project development stage, these modifications should be minor. Any major design modifications to mitigate utility issues should have occurred directly after the Utility Information Meeting in Step 3.”

“All utility owners must participate in the meeting because decisions about the relocation of one utility owner’s facilities can affect the existing and proposed facilities of another utility owner.”

- B. Meeting Scheduling
- C. Meeting Notification
- D. Meeting Preparation
- E. Meeting Participation
- F. Meeting Facilitation
- G. Meeting Minutes

“During the meeting, the project manager keeps meeting notes, recording important discussions, milestones, decisions and action items as part of those notes.”

“After the meeting, the project manager uses the meeting notes to write the meeting minutes. The project manager sends the minutes to all attendees and invitees. In the first paragraph, the project manager asks attendees to verify the minutes and send

back any comments within 10 days of receipt. After reviewing the comments, the project manager distributes final minutes to all participants.”

STEP 6: REQUEST FOR UTILITY RELOCATION PLANS

- I. General
- II. Request for Information from Utility Owner

“After the Utility Design Meeting, the project manager sends each utility owner a set of project plans, an official colored Application for Utility Permit, and a letter (see Appendix I) that asks the utility owner to submit:

- Four copies of a relocation plan on 11” x 17” project plan sheets
- Four copies of a detailed schedule
- Four copies of estimates for reimbursable utility relocations
- Contact information for the utility representative who will manage the relocation
- Information to be incorporated into the utility special provisions
- A completed permit application”

- A. Deadlines

“The utility owner sends the requested information to the project manager by the deadline in the letter. The project manager bases the deadline on a timeframe that allows for completion of the utility relocations before construction begins. In cases where this may not be possible, the project manager bases the deadline on a timeframe where utility relocations will not conflict with construction. Although this letter cannot enforce the deadline for relocation plan submittal, the Notice and Order in Step 12 provides a deadline for the actual relocation.”

- B. Sequencing of Requests
- C. Clearing and Grubbing

“Separate contracts for clearing and grubbing may facilitate advance utility relocation, particularly in wooded areas and in situations where utility owners are not able to perform this work. Contractors shall comply with tree and other vegetation protection and disposal requirements found in Appendix O.”

- III. Utility Relocation Plan Contents

“Utility owners must use Mn/DOT project plans, in either hardcopy or electronic format, as the source to create their relocation plans.”

Note: During preliminary steps, consider allowing the utility owner to use written descriptions for each utility segment to describe the relocation of their utilities in lieu of plans.

- A. Drawings at a Readable Scale
- B. Relocation Plan Details
- C. Profiles at Crossings
- D. Compliance to Standards and Provisions

E. Red, Green, Brown Plan Marking System

“Utility owners must use the red, green, and brown plan marking system (see Appendix L for an example).

- Red marks existing facilities that are either to be removed or left in place out of service
- Green marks existing facilities that remain in place in service
- Brown marks the location of the proposed facilities”

Note: Have the utility owner also categorize the segments of utilities by “moved ahead of construction” or “moved concurrent with construction”.

F. Other Requirements

IV. Environmental Requirements

- A. Environmental Permits
- B. Site Restoration Plan

STEP 7: UTILITY COORDINATION FOLLOW UP

- I. General
- II. Reasons for Follow Up
- III. Options
 - A. Meetings
 - B. Field Meeting
 - C. Additional Subsurface Utility Engineering
- IV. Documentation
- V. Cooperation

STEP 8: UTILITY DESIGN CHANGE MEETING

- I. General

“Some projects require a Utility Design Change Meeting to review plan changes that occurred after the Utility Design Meeting.”

- II. Utility Design Change Meeting
 - A. Meeting Purpose

“When changes occur, the project manager invites all involved utility owners, Utility Agreements and Permits staff, and the Construction Group to the Utility Design Change Meeting.”
 - B. Meeting Scheduling
 - C. Meeting Notification
 - D. Meeting Preparation

- 1. Plan Review
 - 2. SUE Review
 - 3. Reminder and Agenda
- E. Meeting Content
 - F. Meeting Minutes

III. Minor Changes

STEP 9: GOPHER STATE ONE CALL UTILITY VERIFICATION

- I. General
- II. Gopher State One Call
 - A. Utility Verification Letter
 - B. Identification of Additional Utility Facilities
- III. Exception
- IV. No Affected In-Place Utility Facilities

STEP 10: REVIEW OF UTILITY RELOCATION PLANS AND SCHEDULE

“Project manager leads the review of utility relocation plans and schedules with the assistance of the Construction Group.”

I. General

“After receiving the plans, schedules and estimates for reimbursable utility relocations, the project manager reviews the information with the Construction Group.”

II. Review

- A. Utility Relocation Plans
- B. Utility Tabulation Sheet
- C. Schedule
- D. Additional Requirements

III. Corrections

- IV. Submittals to Utilities Engineer
- V. Process for No Conflict/No Involvement Procedure
- VI. Process for No Conflict Within New Right of Way

STEP 11: REIMBURSEMENT AND UTILITY AGREEMENTS

- I. General
- II. Reimbursement
 - A. Instances Where Reimbursement Is Not Allowed
 - B. Instances Where Reimbursement Is Allowed
 - 1. Relocations on Interstate Highways
 - 2. Municipal Relocations That Qualify as First Move

- 3. Relocations Where Utility Owners Have Property Rights
- C. Additional Rights and Circumstances
 - 1. Leases
 - 2. Licenses and Permits
 - 3. Franchises
 - 4. Railroads
- D. Multiple Relocations on One Project

III. Agreements

- A. General
- B. Agreement Preparation
- C. Agreement Execution
- D. Relocation Agreements
 - 1. Plan Review
 - 2. Writing of Relocation Agreements
 - 3. Elements of Relocation Agreements
- E. Preliminary Engineering Agreements
- F. Agency Agreements
 - 1. Writing of Agency Agreements
 - 2. Writing of Agency Agreements for Bridge Attachments
- G. Agency Contract Agreements
- H. Supplemental Agreements
- I. Subordination Agreements
- J. Consultant Agreements
- K. Municipal Agreements
- L. Master Utility Agreements

STEP 12: NOTICE AND ORDER AND UTILITY RELOCATION PERMIT

I. Notice and Order

“The Notice and Order is a critical document that provides the official vehicle by which Mn/DOT exercises its authority to order a utility owner to relocate facilities to accommodate project construction.”

“According to Minnesota Statutes, section 161.45 and Minnesota Rules, part 8810.3300, a Notice and Order is issued by the Utilities Engineer on behalf of the commissioner of Transportation to utility owners whenever they must relocate, adjust, or remove their facilities to accommodate a construction project. The Notice and Order provides notice to utility owners of the upcoming construction project and orders them to relocate, adjust, or remove their facilities by the specified date. All projects requiring a Notice and Order will be processed through a Process B letting.”

Note: MN Rule 8810.3300, Subp 3. contains the language that requires the Notice and Order with the specific completion date and the 15 day follow up to the notice and order. Make sure that someone is following up with utility companies that do not comply with the 15 day response, as dictated by the Notice and Order. Send out a follow up letter promptly upon the failure of a utility company to respond to a notice and order (send the

follow-up letter by certified mail). Contact the Utilities Engineer and the Attorney General's office if a utility company does not respond to the follow up letter.

A. Timing

“Notice and Orders are sent to all applicable utility owners before the letting of the project.”

“The Notice and Order includes a date for completion of the utility relocation based on the contract time provisions and project construction staging utility relocation schedule.”

B. Non-Reimbursable Relocations

C. Reimbursable Relocations

D. Asbestos Removal Language

II. Permits

A. General

“Utility owners submit permits either as part of a highway construction project that requires utility relocation or to accommodate changes or additions to their facilities. A utility owner receives a permit application from Mn/DOT when a highway project necessitates a relocation of its facilities.”

B. Permit Types

1. Long Form No. 2525, Application for Utility Permit on Trunk Highway Right of Way

2. Short Form No. 1723, Application for Installation of Utilities or Miscellaneous Work on Trunk Highway Right of Way

C. Permit Rules

“Minnesota Rules, parts 8810.3100 through 8810.3600 detail the specifics that govern permit application and use. Every permit application contains a copy of the rules.”

1. Rule Highlights

“The rules give a utility owner 15 days after written notice to begin requested work and shall be completed within the date specified in the Notice and Order, which date shall be reasonable under the circumstances.”

2. Nonconformance

3. Processing

D. Permit Timing

“When utility owners must relocate their facilities as part of a highway construction project, ideally they should receive their approved permits for all utility relocations to accommodate the project before the letting date.”

“If Mn/DOT has accepted the utility plan and schedule, but has not yet purchased all of the project right of way, the Construction Group reviews the situation to determine the impact on the utility relocation. The utility owner must not proceed until the new right of way is fully acquired, unless a fully executed Right of Entry Easement (ROE Easement) has been received from the landowner.”

- E. Permit Preparation
 - 1. Relocation Plan

“The utility owner must prepare a relocation plan that details the proposed location of any facilities to be placed, as well as any relocation of existing facilities.”

“The relocation plan must be on state construction plan sheets and include the original location, proposed location, and any temporary locations. See Step 6 for information about preparing the relocation plan.”

- 2. Permit Package
- F. Permit Review
 - 1. Utility Agreements and Permits Unit
 - 2. Permit Special Provisions
 - 3. Permit Supervisor Review and Permit Assembly
 - 4. District Review and Approval
 - 5. Final Preparation
- G. Permit Distribution
- H. Changes to Permitted Work

STEP 13: UTILITY INFORMATION IN CONTRACT DOCUMENTS

- I. General
- II. Project Plans
 - A. Utility Depiction – General
 - B. 216D.04 Requirements
 - C. Depiction of Non-SUE Utility Information
 - D. Depiction of Subsurface Utility Engineering (SUE) Results
 - E. Pipeline Identification
- III. Utility Information in Final Construction Plans by Project Type
 - A. Contract-Letting and Process A and B Projects
 - B. Projects Where In-Place Utility Facilities Will Not Be Affected
 - 1. Projects Requiring No Excavation
 - 2. Projects Requiring Excavation Where Exact Location of Work is Determined in Field
 - 3. Projects Requiring Excavation With Little Latitude for Adjustment
 - C. Projects Where In-Place Utility Facilities Will Be Affected
- IV. Contract Special Provisions

“Utility special provisions make the Mn/DOT contractor aware of activities that will occur within the project limits during the life of the project and will require mutual coordination between the utility owner and the Mn/DOT contractor.”

“The project manager provides as accurate and specific information as possible to assist bidders with bid proposal preparation and contractors with planning their operations to avoid damage and disruption to utility facilities and with preparing their own project construction schedules accordingly.”

A. Content

“Special provisions include the most up-to-date version of the following information, which Mn/DOT gathers in conjunction with the utility owners through the coordination process. Again, the project manager takes care to avoid duplicating information in project plans and special provisions that may create discrepancies. The content of contract special provisions and other contract documents include the following:

- Utility contact information: name of utility, contact person, phone, fax, and e-mail for all utility owners that have facilities located within the project limits including ones whose facilities are not affected.
- **Written description of utility relocations, adjustments, and other factors, as necessary, to supplement information on the utility tabulations.**
- **Relocation schedule that includes the number of working days and/or the specific calendar completion date for individual relocations.**
- The schedule details pre-work activity of the utility owner, such as material delivery, and any contingencies and tasks that the contractor or another utility must perform before relocation can occur, such as staking or clearing of the right of way. By using the information from the relocation schedule, the Mn/DOT contractor can determine the amount of lead time a utility owner will need to complete a specific relocation.
- Restrictions for in-place facilities such as working around pipelines.”

“The project manager should allow the Construction Group to review the special provision draft for their comments.”

B. Language

C. Timing

V. Pre-Letting Processes

STEP 14: CONSTRUCTION

I. General

II. Schedule

“Using the relocation plan and schedule associated with the approved utility permit, the Construction Group works with the utility owner or owners to set a more exact schedule for relocation of the utilities in the field. The Construction Group coordinates the timing of the relocation of utilities with the activities of the state’s contractor.”

- A. Special Circumstances
- B. Staking and Clearing of Right of Way

III. Meetings

- A. Preconstruction Meeting

“Minnesota Statutes, section 216D.04 deals with the Department of Public Safety’s notice and plan requirements for excavation projects involving underground facilities. In such cases, the statute requires at least one preconstruction meeting to communicate the project design and coordinate utility relocation. Utility owners that are affected shall attend the preconstruction meeting or make other arrangements to provide information.”

- B. Pre-Letting Meetings
- C. Other Utility Meetings

Note: Meet and document when utility owners are non-compliant.

IV. Work Requirements

- A. Notification
- B. Safety
- C. Daily Utility Reports

“Only utility owners that are claiming reimbursement on an actual cost basis must fill our Daily Utility Reports (Appendix DD) and submit them to the Construction Group during construction.”

- 1. Content
- 2. Submission
- 3. Lump Sum Agreement Requirements
- D. Temporary Facilities
- E. Project Plan Changes

“A change in the Mn/DOT project plans during construction may impact utility relocations. There are two types of plan changes: ones that the Mn/DOT contractor proposes for their convenience and ones that are proposed to resolve a design error or omission. When a contractor proposes the change, the contractor must gain the utility owner’s acceptance of the change and any cost responsibility will be between the contractor and the utility owner. Mn/DOT will not bear any additional costs due to such a change.”

- F. Resolution of Field Issues

“Effective coordination requires communication and participation by the utility owner and the state. Through early and thorough coordination, the utility coordination process helps to reduce the number of field issues and prevent delays. Utility owners benefit by participating in this process because early coordination potentially reduces the

overall amount of utility relocations. The utility owner also is able to better plan and budget time and resources for required utility relocations in advance.”

“Utility-related delays can impact projects in significant ways. According to the Notice and Order if a utility owner does not respond to requests from Mn/DOT, it can be liable for the costs that a utility-related delay may cause. For example, the utility owner must pay for any temporary moves caused by an unnecessary delay in its work.” In addition, if the utility owner delays the work of the contractor, the contractor may file a claim for damages against the utility. (Mn/DOT does not support the idea of our contractors taking direct action against utility companies.)

1. Steps to Follow in Case of Utility Delays

“Mn/DOT follows a series of steps in cases of utility delays.

- At the first indication of delay in the field, the Construction Group documents the situation in the project files and discusses the issue with the utility owner’s main contact.
- The Construction Group notifies the contractor about the delay. If the contractor indicates that the delay will impact the project, the Construction Group reminds the contractor of the claim notification language in the contract. The contractor is responsible for providing notice to both Mn/DOT and the utility owner.
- After receiving the contractor’s notice, the Construction Group sends another letter to the utility owner, which indicates that contractor delay costs will be assessed if the utility relocation/adjustment is not completed on schedule. The Construction Group also sends a copy of the letter to the prime contractor, any affected subcontractors, and the Utilities Engineer.
- The Construction Group reviews the project history to ensure that Mn/DOT has complied with the manual procedures.
- The Construction Group then determines the most appropriate action for the project. If the work by the utility owner directly results in a delay to the progress of the controlling operation, the Construction Group will determine whether a time extension is acceptable or whether an adjustment in working day assessments is needed.
- The Construction Group forwards a copy of the contractor’s claim settlement agreement to the Utilities Engineer and the Office of Construction and Innovative Contracting for appropriate action.
- If the work cannot be suspended, or if it proceeds at a slower pace without service impact to the project, the Construction Group will order the contractor to continue working around the utility relocation.
- After completion of work and calculation of costs, the Construction Group meets with the Contract Administration Engineer, the Utilities Engineer, and a representative from the Attorney General’s Office to determine cost recovery steps.
- The Construction Group forwards a copy of all documentation and letters to the Utilities Engineer.
- The Utilities Engineer also determines future steps and actions to prevent future delays.”

“If the contractor requests the utility to make moves or changes or to do work solely for the contractor’s benefit or convenience, the contractor must pay the cost of the work.”

- 2. Approval of Field Changes
- 3. Approval of Overtime Work
- G. Inspection
 - 1. General
 - 2. Utility Inspector
 - 3. Mn/DOT Inspector
- V. Submission of Certificate of Completion and As-Built Plans
- VI. Maintenance

STEP 15: CLOSE OUT

- I. General
- II. Payment
 - A. Additional Costs
 - B. Itemized Invoice
- III. Betterments
- IV. Credit for Expired Service Life
- V. Preparation and Processing of Partial Billings
 - A. Invoice Preparation
 - 1. Direct Expenses for Labor
 - 2. Expenses for Materials
 - 3. Equipment Expenses
 - 4. Transportation
 - 5. Miscellaneous Expenses
 - 6. Overhead Costs
 - 7. General Indirect Expense
 - 8. Small Tool Expenses
 - B. Process
- VI. Preparation and Review of Final Bill
 - A. Requirements
 - B. Process

“After receiving the final bill from the utility owner, the Utility Agreement Writer sends the Engineer’s Certificate (Appendix CC) to the Field Engineer. The Field Engineer complete and returns the form to the Utility Agreement Writer.”

VII. The Mn/DOT Audit

- A. No Citations
- B. Citations
 - 1. Citation Letter
 - 2. Resolution
 - 3. Administrative Settlement Memo
- C. Overpayment

VIII. Final Payment

PERMITS FOR UTILITY-INITIATED PROJECTS

- I. General
- II. Permit Types
 - A. Long Form No. 2525, Application for Utility Permit on Trunk Highway Right of Way
 - B. Short Form No. 1723, Application for Installation of Utilities or Miscellaneous Work on Trunk Highway Right of Way
- III. Permit Rules
 - A. Rule Highlights
 - B. Nonconformance
 - C. Processing
- IV. Permit Preparation
- V. Permit Review
 - A. Permit Writer
 - B. Permit Special Provisions
 - C. Permit Supervisor Review and Permit Assembly
 - D. District Review and Approval
 - E. Final Preparation
- VI. Permit Distribution
- VII. Changes
- VIII. Completion of Construction
- IX. Maintenance