FDM 17-25-1 General

June 19, 2013

1.1 Background

The railroad companies generally accomplish the work of installing new signals and making improvements to existing crossing signals with their own forces. In some cases the work may be done under a continuing contract with a private railroad signal contractor, or by contract based on bids from qualified contractors. WisDOT must approve the continuing contract or the bid prior to the work being accomplished in order for reimbursement to be made for the work.

There are 3 types of warning device projects:

- "Installation" projects are generally these where the affected crossings have no existing active warning devices.
- "Upgradings" are generally those where active warning devices are present, but the projects are designed to increase lamp sizes, install gates, improve circuitry, or replace old worn out equipment.
- "Relocation" projects are those which relocate active warning devices out of shoulder areas or to accommodate minor roadway widenings.

Warning device hardware is expensive. Because of the expense of the material (usually between $30,000 and $100,000 per crossing), for a new installation railroad companies do not stock pile signal material. Depending on the complexity of the material technology, a railroad company usually needs between six and nine months after the WisDOT authorization notice to procure material before the material can be installed.

1.2 General

Train activated warning devices include flashing lights located on the side of the road or cantilevered over the street or highway, and bells. See FDM 17-60 Attachment 20.1. Half roadway gates (short-arm gates) may be installed at crossings having multiple tracks and at single track crossings;

- where the motorist may be confused by trains operating on nearby siding tracks;
- where the sight distance along the mainline track is inadequate at the crossing; or
- where ordered by the OCR.

Full roadway gates are installed at single directional roadways for reasons designated above. Gates at sidewalks or separate recreational crossings are not recommended but may be ordered by the OCR after its investigation and finding that they are necessary at a particular crossing. They are generally considered ineffective, subject to vandalism and can trap wheelchair bound or other users.

Another issue with train activated devices is motion detectors and constant warning time predictors. A minimum of 20 seconds of warning time is required. Excessive warning time (in excess of 30 seconds) is considered hazardous as it encourages the impatient motorist to drive over the crossing, often around crossing gates, while the warning devices are operating.

The railroad companies are responsible for maintaining train-activated crossing signals. The WisDOT is authorized by legislation to negotiate contracts with railroad companies for the installation of railroad crossing signals without bids (s84.06(4) WS).

1.3 Process

The detailed "Process" steps for projects in each program are detailed in Attachment 1 of each of the subjects which follow in this Section. The culmination of all coordination and negotiation is an agreement (contract) between WisDOT and the railroad covering the work at the crossing. See Attachment 1.1 for a sample agreement.

Whether a signal project is authorized in a WisDOT program or in an OCR program, or ordered by the OCR, the agreement necessary to accomplish the work is prepared by the Railroads and Harbors Section for approval by the railroad company and WisDOT. Following approval, the WisDOT region implements the project, including overseeing construction, and authorizing all payments in accordance with the agreement.

DT1589 is a Railroad Crossing Report that is necessary for all crossing projects. It also serves as a guide for what should be looked for during pre-design field reviews. Click here for a working copy of DT1589 and look

under “Plans and projects.”

1.4 Lead Times

Early notification and early coordination are critical. Initial contact with the railroad regarding any crossing work should occur as early as possible, but no less than 24 months before the anticipated start of construction. See FDM 17-20 Attachment 5.1 for a table of recommended lead times for different types of railroad work.

See the Railroad Coordination Handbook for more detailed information.

LIST OF ATTACHMENTS

Attachment 1.1	Sample Agreement for Highway-Railroad Grade Crossing Warning Devices
Attachment 1.2	Railroad Crossing Report Form, DT 1589

FDM 17-25-5 Highway Improvement Projects

June 19, 2013

5.1 Introduction

Any Federal-aid funded project with a highway-railroad grade crossing within or near the project limits shall have adequate warning devices at the crossing. The warning devices shall be installed and functioning properly, per 23 CFR 646 before opening the project to unrestricted use by traffic. The Railroads & Harbors Section of DTIM, or the Office of the Commissioner of Railroads will determine the adequacy of the devices."

Therefore, it is important for the region or consultant project manager to identify any and all potential railroad involvement in their projects as early as possible, and work with the Regional Railroad Coordinator (RRC) to determine the appropriate course of action. At a minimum they should notify the railroad of the project and coordinate any crossing track or other work that they have planned, (see FDM 17-20-1). It will also probably be necessary to negotiate an agreement (contract) with them (see FDM 17-20-10). Programming, scheduling and funding of railroad projects that are a part of larger roadway improvement projects are generally the same as for the main highway project. Specific details for various types of railroad projects are provided elsewhere in this chapter.

5.2 Lead Times

Identification of railroad facilities requiring relocation, adjustment, or the installation of a new crossing or crossing signals in conjunction with highway improvement projects should be made at an early stage of plan development.

Adequate lead-time is required to develop plans, estimate costs, negotiate acceptance by the railroad, and obtain contract approvals. If an OCR hearing becomes necessary, even greater lead times will be necessary. FDM 17-20 Attachment 5.1 identifies the lead times needed for various railroad projects.

5.3 Process

See Attachment 5.1 for a detailed description of this process. The region sets up a railroad project ID number and notifies the Railroads and Harbors Section of the probable involvement with railroad facilities. The RRC has the list of the current railroad contacts.

When crossing signal work is to be coordinated with a highway project, factors to be considered may include the need of a flagger. A flagger may be required when trains operate over the crossing and the crossing may need to be closed for a day while the crews are completing the work.

If the OCR has ruled on the establishment of a new crossing with signals, the OCR order may not permit the new crossing to be opened to public travel until the signals are operating.

LIST OF ATTACHMENTS

Attachment 5.1	Process that is followed for a Highway Improvement Project with an At Grade Railroad Component

FDM 17-25-10 WisDOT Safety Projects

June 19, 2013

10.1 Introduction

Both the WisDOT Safety Program and the OCR Safety Program most often deal with “isolated” railroad improvements, i.e., those not included within the limits of a larger, WisDOT or local highway improvement project.

The OCR Safety Program includes only warning devices, either new installations or upgrades or replacement of existing installations. The WisDOT Safety program also consists mostly of warning devices, but may also include many other project types, including crossing reconstruction, approach roadway reconstruction, structures to separate the roadway and the railroad, etc.

10.2 General

See Attachment 10.1 for a summary of the process. For warning device projects included in approved programs, the region submits the "railroad crossing submittal package", specified in FDM 17-20-10. After reviewing this submittal, Railroad and Harbors Section (RHS) prepares a proposal or an estimate request to the railroad which includes the following:

1. Location of crossing
2. Statement of changes proposed.
3. Position of proposed new signals with respect to roadway centerline or face of curb. (See FDM 17-60 Attachment 20.1)
4. Plan sheets
5. Current and proposed highway traffic volumes and speed limits.
6. Rail traffic and train speeds (usually obtained from local trainmaster by the region).
7. Description of existing crossing warning devices.
8. Cost sharing proposed.
9. Authorization for the railroad to begin preliminary engineering including development of the detailed cost estimate, signal location sketch, and circuit plans.

10.3 OCR Involvement

If the railroad and the RHS cannot reach an agreement on the proposed project the RHS petitions the OCR for a review of and decision on the proposed project. The petition includes the following:

1. A request for review of the adequacy of existing warning devices at the identified crossing under Section 195.28, Wisconsin Statutes.
2. Location Sheet.
3. Typical Section Sheet
4. Plan and Profile Sheet
5. The proposal/estimate request that was sent to the railroad.
6. Copies of other correspondence to and from the railroad.
7. Railroad Crossing Report

The OCR may either schedule a public hearing or make an investigation of the crossing without a hearing. Any person affected by the OCR Order issued without a hearing may request a hearing if dissatisfied with the Order.

If a public hearing is scheduled by the OCR, the following activities take place. Also See FDM 17-10-15.

1. The region and occasionally Bureau of Highway Operations are requested to submit to the RHS exhibits (plans) and written justification (testimony) regarding the project. This often takes place at a preliminary meeting weeks before the scheduled OCR hearing.
2. The RHS reviews the materials and statement and returns it to the region. Any changes are to be incorporated in a final typed statement. Testimony may also be developed by a series of questions and answers.
3. The RHS and region staff (and local officials, if a local road or community is involved) attend the hearing in support of the petition. Usually, this is scheduled a minimum of a couple of months after the OCR receives the petition. The region provides a minimum of five copies of all exhibits and the prepared statement. A RHS staff person appears for the WisDOT unless someone else is designated. The region representatives and representatives from other WisDOT offices such as the Railroads and Harbors Section and Bureau of Highway Operations may be called as witnesses.
4. The OCR will issue a Proposed Decision or a final Order if the Commissioner attends the hearing usually within three months of the hearing date.

5. The RHS does one of the following:
   - Responds with comments to the Proposed Decision, including a possible appeal, or
   - Proceeds to obtain an agreement based on the Final Order and railroad's estimate.

Should the OCR fail to approve the proposed project, the RHS discusses the project with other central office staff and the region to re-evaluate the need for railroad warning devices. If there is not sufficient need for the warning devices, the project would be withdrawn from the Program. If central office and the region determine that railroad signals are required, the Order will be appealed with the approval of the DTID Administrator.

LIST OF ATTACHMENTS

Attachment 10.1	Process that is followed for a WisDOT Railroad Safety Project (RR Force Work Component)

FDM 17-25-15 OCR Safety Projects

June 19, 2013

15.1 Introduction

Both the WisDOT Safety Program and the OCR Safety Programs deal mainly with "isolated" railroad improvements, i.e., those not included within the limits of a larger, WisDOT or local highway improvement project.

The OCR Safety Program includes only warning devices, either new installations or upgrades or replacement to existing installations.

15.2 General

Projects in the OCR Safety Program are the result of:

- OCR initiatives to identify and investigate crossings needing improvement. These are often accomplished on "railroad corridor" basis by the OCR, as well as by liaison with local officials and railroad officials.
- Petitions from local units of government, neighborhoods, or others, that cite dangerous conditions at crossings in their area. Such petitions may originate with a local unit of government, 5 or more electors, the railroad, the WisDOT or at the initiative of the OCR.

A portion of the Federal-Aid Safety funds appropriated to Wisconsin has been designated to fund the projects that are subsequently ordered by the OCR. All projects in the OCR Safety Program are actually administered by the WisDOT. This includes coordination of all implementation activities after program approval, all field construction activity, oversight, vouchering payments and finally closing the projects.

A detailed list of "Process Steps" is included as Attachment 15.1.

15.3 WisDOT Assistance

WisDOT has a policy of recovering its costs from the OCR projects. This is intended to cover region costs of inspection, reviewing billings and approving payments, securing traffic counts, attendance at meetings and hearings, etc.

- See PMM Chapter 11-00-01, page 11 for more information.
- See the RHS Railroad Coordination Handbook for more detailed information.

LIST OF ATTACHMENTS

Attachment 15.1	Process that is followed for an OCR Railroad Safety Project (RR Force Work Component)