

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

Petition of the Wisconsin Department of Transportation for the Alteration and Exemption of a Public Crossing of the Union Pacific Railroad Co. Tracks with STH 26 in the Town of Aztalan, Jefferson County

Petition of the Wisconsin Department of Transportation for the Establishment of a Public Crossing of the Union Pacific Railroad Co. Tracks with a New Road in the Town of Jefferson, Jefferson County

Petition of the Wisconsin Department of Transportation for the Alteration of a Public Crossing of the Union Pacific Railroad Co. Tracks with Business STH 26 in the City of Fort Atkinson, Jefferson County

9040-RX-1247

FINAL DECISION

By letters dated July 31, 2007, the Wisconsin Department of Transportation (DOT) filed three petitions with the Office of the Commissioner of Railroads (OCR) related to the STH 26 project in Jefferson County. The petitions have been consolidated in one docket. DOT plans to reconstruct and relocate STH 26 from Fort Atkinson to Johnson Creek in 2009.

DOT petitioned under §§86.13, 195.28, 195.285, and 195.29, Stats., for the alteration and exemption of the public crossing of the Union Pacific Railroad Co. (UP) tracks with STH 26 in the Town of Aztalan, Jefferson County (crossing no. 177 687L / MP 121.56).

Second, DOT petitioned under §86.13, 195.28, and 195.29, Stats., for the establishment of a public crossing of the Union Pacific Railroad Co. (UP) tracks with a new town road in the Town of Jefferson, Jefferson County. For purposes of this order that new roadway will be called New Town Road.

Last, DOT petitioned under §86.13, 195.28, and 195.29, Stats., for the alteration of a public crossing of the Union Pacific Railroad Co. (UP) tracks with Business STH 26 (also known as CTH 'K') in the City of Fort Atkinson, Jefferson County (crossing no. 176 070C / MP 113.33).

Pursuant to due notice, public hearing was held in this matter on November 27, 2007 in Jefferson, Wisconsin with hearing examiner Douglas S. Wood presiding.

On February 15, 2008, the hearing examiner issued a proposed decision. A final decision has not been issued on any of the issues. The OCR subsequently conducted a continued hearing in this matter that was limited solely to the Wisconsin Department of Transportation's proposal for the alteration of the Union Pacific Railroad Co. (UP) tracks with STH 26 in the Town of Aztalan, Jefferson County (crossing no. 177 687L / MP 121.56).

On October 16, 2008, the DOT requested that the OCR issue the final decision on all matters except for the STH 26 crossing itself. Issuance of the partial final decision will allow the DOT to proceed with necessary preliminary work. The Commissioner agrees to issue this partial final decision. The decision on the STH 26 crossing will be issued separately.

All but two of the comments on the proposed decision related to the main STH 26 crossing and whether it should be rebuilt as an altered at-grade crossing or as a grade-separated crossing. The UP and DOT comments did address other issues. The UP argues that it did not have enough notice of the project to prepare an adequate case in opposition to the proposal for the new crossing in the Town of Jefferson. The UP made a similar complaint in the companion case on this project in Dodge County (9040-RX-1248).

The UP did receive adequate legal notice of the hearing. Chapter 195 Stats., requires 20 days notice of hearings held under s. 195.29 Stats. (see, s. 195.04 Stats.). The OCR issued the original notice of hearing on August 30, 2007 for an October 16, 2007 hearing. The hearing was postponed to November 27, 2007 at the request of the UP. The UP had more than 20 days notice of the hearing. Indeed, the UP had nearly three months notice of the matters to be heard. In addition, the DOT notified the UP of this matter at least as early as its July 31, 2007 petition to the OCR. Thus, the UP was notified of the project by the OCR nearly three months before the hearing and by DOT nearly four months before the hearing. DOT also disputed the assertion that it had not previously notified the UP of the project.

The UP's objections to the merits of the proposal were addressed in the proposed decision and the Commissioner concurs with the hearing examiner. The Commissioner adopts the proposed decision as final with regard to the new crossing of the New Town Road and the alteration of Business STH 26.

Appearances:

**Parties**

Wisconsin Department of Transportation, Petitioner  
by  
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Assistant General Counsel  
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In Opposition:

Union Pacific Railroad Co.  
by  
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And by  
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## Findings of Fact

### THE COMMISSIONER FINDS:

The Wisconsin Department of Transportation plans to reconstruct and expand STH 26. The overall STH 26 corridor is being constructed in segments. The STH 26 corridor is located in south central Wisconsin in Rock, Jefferson and Dodge Counties. The corridor begins on the north side of Janesville at IH 90 and extends north about 48 miles to approximately 9 miles north of Watertown at STH 60-East. Engineering plans are being developed separately for each segment.

DOT began studying this corridor in 1999 to address high existing and projected traffic volumes, high truck volumes, and high crash rates along the regional route. The preferred alternative for improvement has been approved by the Federal Highway Administration (FHWA) in the Final Environmental Impact Statement (FEIS).

This petition concerns two adjacent projects on STH 26: the 8-mile Jefferson bypass and the 2.5-mile Jefferson to Johnson Creek reconstruction. The highway construction is scheduled to be let in multiple contracts by the DOT beginning in August 2008 and construction is anticipated to take place between the Fall of 2008 through the 2010 construction season. The combined construction cost for both projects is currently estimated at \$64.2 million.

This docket includes three locations. DOT proposes to add a separate bicycle path crossing to the existing at-grade crossing of Business STH 26 (also known as CTH 'K') in the City of Fort Atkinson. Second, DOT proposes to establish a new at-grade crossing of a new town road in the Town of Jefferson. Third, DOT proposes to alter the existing crossing of STH 26 from a 2-lane roadway to 4-lanes divided. DOT also seeks the exemption of the STH 26 crossing from the stopping requirement of s. 346.45 Stats. These final two matters will be addressed by separate order.

### **Alteration of the Business STH 26 Public Crossing in the City of Fort Atkinson**

DOT proposes to add a separate bicycle path crossing to the existing Business STH 26 crossing. No other changes are proposed to the existing crossing. This bicycle/pedestrian trail will begin in Fort Atkinson at the existing Business 26 interchange and extend 2.7 miles along the east side of the STH 26 bypass to CTH 'W' in Jefferson. This bicycle/pedestrian trail will connect Fort Atkinson and Jefferson.

The railroad currently operates 2 train movements per day over the Business STH 26 and New Town Road crossing. The UP states that train operations occur on a daily basis. Train speed is a maximum of 10 mph at the Business STH 26 and New Town Road locations. Train operations at these two crossings will not be impacted by the ethanol plant.

The proposed trail will intersect the railroad track at an angle of approximately 71° (right-hand forward). The proposed pedestrian/bike trail consists of a 10'-wide asphalt path with 2'-wide turf shoulders. At the crossing, the traveled way of the trail is 40' from the traveled way of Business 26 as measured along the railroad line. All work will be done within the existing DOT highway easement.

The required stopping sight distance for a bicyclist traveling at 20 mph is 120'. The crossing warning devices will be visible more than 120' in advance of the crossing. A bicyclist traveling at 20 mph needs to see a train traveling at 10 mph when it is 108' from the crossing. Sight distance will be adequate in all quadrants.

The addition of this bicycle/pedestrian crossing will support bicycling for recreational use and transportation. By altering the Business STH 26 crossing as described above, a safe facility for the public is being provided by separating pedestrian and bicycle traffic from motor vehicle traffic.

The existing warning devices on Business STH 26 consist of cantilevered flashing light signals with 12" incandescent lamp units, cross bucks, and a mechanical bell. The DOT proposed that back-lights with 12-inch LED lamp units be added to the existing signals. The Commissioner finds that in order to adequately protect public safety, new 12" LED lamps should be installed in place of the existing incandescent lamps and that the back-lights with 12" LED lamp units should be added on the north signals. In addition, crossbucks (2), advance warning signs, STOP AHEAD and STOP signs shall be installed for the trail crossing.

### **Establishment of a New Public Crossing in the Town of Jefferson**

The STH 26 project includes construction of a new diamond interchange and a new local road that will connect the STH 26 Jefferson bypass corridor to existing STH 26 on the south side of Jefferson. The new road will cross the UP approximately 1200' east of the interchange.

DOT projects that New Town Road will carry 7,250 average annual daily traffic (AADT) in 2010 and 10,000 AADT in 2030. Truck traffic is projected to be 5.7% of the average annual daily traffic. The speed limit will be 45 mph.

The railroad currently operates 2 train movements per day over the Business STH 26 and New Town Road crossing. The UP states that train operations occur on a daily basis. Train speed is a maximum of 10 mph at the Business STH 26 and New Town Road locations. Train operations at these two crossings will not be impacted by the ethanol plant.

The exposure factor in 2010 is 14,500 and in the design year 2030 is 20,000 on days when trains operate. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

The proposed roadway typical section will consist of a divided two-lane section with a 30'-wide median and 12'-wide driving lanes, a 6'-wide paved shoulder with 36"-wide curb and gutter on the median side, and a 10'-wide shoulder (3' paved) on the outside. New Town Road will intersect the UP tracks at an angle of 59° (left-hand forward). In the westbound direction there

will be a 12'-wide left turn lane and 12'-wide right turn lane beginning approximately 50' west of the railroad crossing. In the eastbound direction there will be a 12'-wide right turn lane beginning approximately 35' east of the crossing. These turn lanes will not cross the tracks.

The total roadway width is 74' measured perpendicularly from the outside edge of shoulders. The proposed crossing width measured along the track centerline is 88' measured from one foot outside the edge of shoulders.

A driver traveling at 45 mph needs a distance of 394' to stop safely. The crossing warning devices will be visible from more than 394' in each direction. The stopping sight distance will be adequate.

Assuming a train speed of 10 mph, a driver traveling at 45 mph needs to see a train when it is 108' from the crossing from a point 394' down the highway. DOT will acquire the required design sight triangles as part of the right-of-way. As part of the project, DOT will clear the sight triangles to provide adequate sight lines at the approaches to the crossing. The order requires that the DOT acquire permanent sight easements to create and maintain a clear view within the required sight triangles in each quadrant.

At all crossings, except those with gates, a driver stopped 15' short of the near rail must be able to see far enough down the track, in both directions, to determine if sufficient time exists for moving their vehicle safely across the tracks to a point 15' past the far rail, prior to the arrival of a train. Required clearing sight distance along both directions of the track, from the stopped position of the vehicle, is dependent upon the maximum train speed and the acceleration characteristics of the "design" vehicle. The necessary clearing sight distance at the New Town Road crossing will be 225'. The available clearing sight distance will be more than 225'. The clearing sight distance will be adequate.

### **Railroad Objections and Alternatives to the New Crossing**

The UP opposed the establishment of the new crossing. The UP witnesses testified that the UP objects to any and all new crossings. The UP also asserted that there are too many at-grade crossings in this area.

The UP also presented an expert engineering witness who presented two alternatives to the DOT proposal. One alternative involved constructing a grade-separated crossing on New Town Road, which would push the future Business STH 26 far to the east across farm land (Exhibit 7). The second alternative would eliminate the New Town Road crossing altogether by extending a connecting roadway along the west side of the tracks to Industrial Avenue (Exhibit 8).

The witness was retained by the UP only a few days before the hearing and was only able to spend a small fraction of the time that DOT's expert staff and consulting engineers had spent on the project. STH 26 is a "majors"<sup>1</sup> project. DOT spends years and hundreds of thousands of dollars engineering "majors" projects.

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<sup>1</sup> As defined in s. 84.013 Stats., a majors projects is one that has a total cost of more than \$5 million, and one of the following: Constructing a New Highway for 2.5 miles or more; Relocating 2.5 miles or more of the existing highway; Adding lanes for 5 miles or more; Converting expressway to freeway for 10 miles or more.

The alternative requiring a grade-separated crossing of New Town Road and the UP tracks would increase the cost of the project by millions of dollars, would require a revision to the FEIS, and would delay the project by at least two years. The alternative eliminating the crossing would shift Business STH 26 traffic from a designed 50 mph roadway on to local streets with a 25 mph restriction, more intersections, and more turns in the route. This alternative would probably add some cost to the project, would probably require a revision to the FEIS, and would delay the project for two years or more.

A grade-separated crossing is not worthy of serious consideration at the Town of Jefferson location given the low volume of trains (two per day at most). The alternative that would avoid creating a new crossing would create other traffic and safety problems that would outweigh any gains from eliminating a crossing on this lightly used rail line. The DOT proposal will create a very safe proposal with medians, new automatic flashing lights and gates, and good vision triangles.

In order to adequately protect public safety, cantilevered 12" LED automatic flashing lights with gates and constant warning time circuitry are needed.

The establishment of this new crossing is consistent with the preferred alternative as approved in the FEIS and promotes local traffic circulation by providing motorist access from the new STH 26 bypass to the south side of the city of Jefferson.

*Constant warning time circuitry* adjusts for train speed and causes the crossing signals to always operate for the same amount of time before the train reaches the crossing, regardless of train speed. A motion detector simply detects the train operation, but does not adjust for train speed so that the amount of warning time varies based on train speed.

*Light emitting diodes (LED)* lamps replace incandescent bulbs. LEDs have higher conspicuity, a wider cone of vision, and longer life than incandescent lights. LEDs are especially useful on east-west roadways where the rising and setting sun may make the signals difficult to see.

**Source of funding:** The STH 26 project funding sources will pay 100% of the signal materials and installation costs. The project shall also pay 100% of the cost for the Business STH 26 bicycle path crossing and the new New Town Road crossing.

#### Ultimate Conclusions on the Issues

#### THE COMMISSIONER CONCLUDES:

1. That the alteration of the crossing at-grade of Business STH 26 with the Union Pacific Railroad Co. tracks in accordance with the design plans of the Wisconsin Department of Transportation in the City of Fort Atkinson, Jefferson County will promote public safety and convenience.

2. That the establishment of the crossing at-grade of New Town Road with the Union Pacific Railroad Co. tracks in accordance with the design plans of the Wisconsin Department of Transportation in the Town of Jefferson, Jefferson County will promote public safety and convenience.

3. That establishment of the New Town Road crossing is advisable under all the circumstances.

4. That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED lamps on the existing signals and add 12" LED backlights on the existing north signal mast at the Business STH 26 crossing and to install separate crossbucks and stop signs for the bicycle path crossing.

5. That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED automatic flashing lights with gates and medians at the New Town Road crossing.

6. That it is reasonable that the Union Pacific Railroad Co. bear none of the construction costs for the Business STH 26 and New Town Road crossings.

Order

THE COMMISSIONER ORDERS:

That the jurisdiction of the Office of the Commissioner of Railroads under §§195.28 and 195.29, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

Order

THE COMMISSIONER ORDERS:

1. That the **Union Pacific Railroad Co.** shall install and maintain a **separate bicycle path** crossing at-grade of **Business STH 26** with its tracks in accordance with the design plans of the Wisconsin Department of Transportation in the City of Fort Atkinson, Jefferson County by **July 1, 2010** (Crossing No. 176 070C / MP 113.33).

2. That the **Union Pacific Railroad Co.** shall install and maintain a concrete-paneled crossing at-grade of **New Town Road** with its tracks in accordance with the design plans of the Wisconsin Department of Transportation in the Town of Jefferson, Jefferson County by **July 1, 2010**.

3. That the **Union Pacific Railroad Co.** shall install and maintain separate crossbucks for the bicycle path crossing, install 12" LED lamps on all existing signals, and add 12" LED backlights on the existing north signal mast with other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of

Railroads at the crossing of its tracks with **Business STH 26** at-grade in the City of Fort Atkinson, Jefferson County by **July 15, 2010** (Crossing No. 176 070C / MP 113.33).

4. That the **Wisconsin Department of Transportation** shall install and maintain advance warning signs, STOP AHEAD, and STOP signs on the approaches to the **Business STH 26** bicycle path crossing grade in the City of Fort Atkinson, Jefferson County by **July 15, 2010** (Crossing No. 176 070C / MP 113.33).

5. That the **Union Pacific Railroad Co.** shall install and maintain **cantilevered** 12" LED automatic flashing lights with gates, constant warning time circuitry, and other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **New Town Road** at-grade in the Town of Jefferson, Jefferson County by **July 15, 2010**.

6. That the **Union Pacific Railroad Co.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.

7. That the signal installation work herein ordered shall not begin until the regional office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.

8. That the **Wisconsin Department of Transportation** shall obtain permanent easements to provide a clear view within the required sight triangles for the **New Town Road** crossing, except for that portion within the railroad right-of-way.

9. That the **Union Pacific Railroad Co.** shall bear none of the construction costs for the Business STH 26 and New Town Road crossings. The Union Pacific Railroad Co. shall bear any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.

10. That jurisdiction is retained.

Dated at Madison, Wisconsin, (October 24, 2008).

By the Office of the Commissioner of Railroads.

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Roger Breske  
Commissioner of Railroads