

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

Petition of the Wisconsin Department of Transportation for the Alteration of a Public Crossing of the Union Pacific Railroad Co. Tracks with CTH 'C' (Spring Street) in the Village of Mt. Pleasant, Racine County

9040-RX-1252

FINAL DECISION

By letter dated October 10, 2007, the Wisconsin Department of Transportation (DOT) filed a petition with the Office of the Commissioner of Railroads (OCR) under §§195.28 and 195.29, Stats., for the alteration of a public crossing of the Union Pacific Railroad Co. (UP) tracks with CTH 'C' (Spring Street) in the Village of Mt. Pleasant, Racine County (crossing no. 176 869U / MP 63.3).

Pursuant to due notice, public hearing was held in this matter on December 12, 2007 in Mt. Pleasant, Wisconsin with hearing examiner Douglas S. Wood presiding.

On January 3, 2008, the hearing examiner issued a proposed decision. The proposed decision apportioned the crossing construction costs exactly 50/50 between the highway project (DOT, County and Village) on the one hand, and the UP, on the other. The pro-rated 50/50 cost split was based on the railroad's statutory duty to maintain at-grade crossings and to meet highway improvement projects, the poor condition of the existing crossing, and the doubling of the roadway width by the project.

By letter dated January 10, 2008, the UP filed objections regarding the cost share. The UP had been led to believe by DOT's petition that the DOT would pay 93% and the UP 7% of the costs. This proposed allocation by DOT was based on a misunderstanding that section 86.13 (5) could be applied to this project. That statute only applies to state trunk highway. The highway in question is **not** a state trunk highway and therefore 86.13 (5) does not apply.

The railroad argued, however, that it did not attend the hearing based on the presumed 93/7 split. While one could argue that the railroad should also be aware of the restrictions on the 85% funding provisions, there is an element of unfairness in allowing the DOT to offer one cost share and then dramatically change their position after the hearing.

The railroad could also have argued that it should be given some credit for the claimed good condition of the crossing and should pay less than 50/50. The testimony at the hearing was that the crossing panels were in poor condition, but the UP might have presented countervailing evidence if they had attended the hearing.

Subsequent to the filing of the UP's objections, the hearing examiner sent email to the parties discussing the objections, the statutory language, and the OCR's past practice. The hearing examiner suggested that the UP and DOT attempt to resolve the differences. The UP and DOT did in fact discuss how to resolve these differences. The UP and the DOT have agreed that assigning 73% of the cost to the project and 27% to the UP is fair and reasonable in this case. The Commissioner concurs with this resolution for the following reasons.

DOT first provides a more accurate accounting of the impact of the project by using the crossing *lengths* rather than the roadway widths. The existing crossing is 32' in length. The project will require two new 40'-long crossings or 80' in total. Thus, under the standard pro-rated apportionment, the UP would pay 40% of the cost for the new crossings ($32/80=0.40$).

DOT also reviewed the value of the remaining life in the existing crossing and determined that the crossing has 33% of its service life remaining. DOT states that it estimates there are about 5 years of service life left in the existing crossing. DOT notes that the crossing "is an older type Omni crossing that is not lagged down" and that this type of crossing typically has a service life of 15 years. Applying this credit adjusts the pro-rated share to 73% to the highway project and 27% to the UP.

The UP agreed to the 73/27 split. DOT stated at the end of its email that it does not 'support' the cost-sharing split and does not want this resolution to become precedent. Viewing the email as a whole the Commissioner concludes that DOT consents to this cost-sharing (although it may not be happy about it). As to the precedent-setting nature of the cost-sharing in particular as it concerns the value of the remaining life in the crossing, as stated in the hearing examiner's post-objection email, "The OCR has been reluctant to give credit for the purported 'remaining life' in a crossing because that is difficult to determine without resorting to 'guesstimation'." The OCR remains reluctant to grant such credit.

In this case, however, the Commissioner finds that considering all the circumstances, the 73/27 split is reasonable.

The proposed decision is also adjusted to reflect the use of OCR safety funds to pay the major portion of the signal costs. See the discussion below.

Appearances:

Parties

Wisconsin Department of Transportation, Petitioner
by
Gregory A. Baer, PE
Railroad Project Coordination Engineer
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In Support:

Racine County
by
Jeffrey D. Katz, PE
Manager of Planning & Engineering Services
14200 Washington Avenue
Sturtevant, WI 53177

Village of Mt. Pleasant
by
William D. Sasse, PE
Director of Engineering
6126 Durand Avenue
Racine, WI 53406

No appearance by the Union Pacific Railroad Co.

Findings of Fact

THE COMMISSIONER FINDS:

The Wisconsin Department of Transportation, Racine County, and the Village of Mt. Pleasant propose to widen CTH 'C' (Spring Street) from two lanes to four lanes with a median from Stuart Road to Summerset Road in the 2009 construction season. The crossing is included within the project limits.

The project will widen CTH 'C' (Spring Street) from a 2-lane rural section to a 4-lane urban divided roadway. CTH 'C' (Spring Street) intersects the tracks at an angle of 85°. The crossing angle will not change. The crossing consists of one mainline track.

Reconstructed CTH 'C' (Spring Street) will consist of two 34'-wide roadways divided by a 40'-wide raised median. Each roadway will consist of two 12'-wide lanes, a 6'-wide outside shoulder and curb and gutter on the inside and outside.

The CTH 'C' (Spring Street) crossing is 520' west of the Airline Road intersection, which will be signalized as part of the project. Design year traffic queues for that intersection are not expected to reach the crossing. Nonetheless, conduit is being installed in the event that an interconnection between the crossing and traffic signals is needed.

CTH 'C' (Spring Street) will carry 13,600 ADT (average daily traffic) in 2008. The DOT projects CTH 'C' (Spring Street) will carry 18,800 ADT in the design year of 2028. The speed limit is 50 mph, but will be reduced to 45 mph after the project.

The railroad currently operates 14 through train movements per day over the crossing at a speed of 50 mph. The railroad also operates 4 switch movements per day at a maximum speed of 30 mph.

A driver traveling at 50 mph needs a distance of 425' to stop safely.

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

Assuming a train speed of 50 mph, a driver traveling at 45 mph needs to see a train when it is 525' from the crossing from a point 394' down the highway. The sight distance available in each quadrant from the safe stopping distance is as follows: 450' in the northwest quadrant, 550' in the northeast quadrant, 480' in the southwest quadrant and 770' in the southeast quadrant. Sight distance is inadequate in the northwest and southwest quadrants.

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 CTH 'C' (Spring Street) crossing is 1120'. The available clearing sight distance is inadequate in the southeast (1080') and southwest quadrants (910').

None of the sight distances change materially as a result of the project.

The exposure factor at this crossing is about 245,000. The exposure factor at this crossing will exceed 335,000 in the design year assuming 18 train movements per day. 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.

Four train-vehicle accidents have occurred at this crossing since 1973. The crashes occurred in 1979, 1980, 1989, and 1994.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 50 mph speed. Train speed is strongly correlated with fatalities in train/vehicle accidents. More specifically, crossings with train speeds of 40 mph and over have a disproportionate number of fatalities.

In order to adequately protect public safety at the reconstructed crossing, it is necessary to install and maintain cantilevered 12" LED automatic flashing lights with gates and constant warning time circuitry.

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.

In summary, the alteration of the crossing at-grade of the Union Pacific Railroad Co. tracks with CTH 'C' (Spring Street) will promote public safety and convenience.

Source of funding: The cost of the crossing work will be pro-rated 73/27 between the highway project and the UP for the reasons discussed above.

Signal costs. Upgrading the warning devices at this crossing was already in the OCR's safety program before any knowledge of this project. The project widens the roadway and necessitates the use of cantilevered signals. Consistent with past practice, the highway project shall fund the incremental cost of the warning devices attributable to the roadway changes. The highway project shall fund \$30,000 and OCR safety funds shall fund the remaining costs as originally planned. The OCR's contribution shall be capped at \$150,000. Notwithstanding this cap on the public contributions, the UP may recover its demonstrated actual reasonable and necessary costs.

Ultimate Conclusions on the Issues

THE COMMISSIONER CONCLUDES:

1. That the alteration of the crossing at-grade of CTH 'C' (Spring Street) with the Union Pacific Railroad Co. tracks in accordance with the design plans of the Wisconsin Department of Transportation, the Village of Mt. Pleasant, and Racine County in the Village of Mt. Pleasant, Racine County will promote public safety and convenience.
2. That in order to adequately protect and promote public safety, it is necessary to install and maintain cantilevered 12" LED automatic flashing lights with gates.
3. That it is reasonable that the Union Pacific Railroad Co. bear 27% of the cost for the crossing construction.

Conclusion of Law

THE COMMISSIONER CONCLUDES:

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 crossing at-grade of **CTH 'C' (Spring Street)** with its tracks in accordance with the design plans of the Wisconsin Department of Transportation, the Village of Mt. Pleasant, and Racine County in the Village of Mt. Pleasant, Racine County by **July 1, 2009** (Crossing No. 176 869U / MP 63.3).

2. 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 **CTH 'C' (Spring Street)** at-grade in the Village of Mt. Pleasant, Racine County by **July 15, 2009** (Crossing No. 176 869U / MP 63.3).

3. 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.

4. 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.

5. That **Racine County** shall not open **CTH 'C' (Spring Street)** at the railroad crossing to unrestricted public use until the installation and activation of the automatic warning devices ordered above.

6. That the **State of Wisconsin** shall contribute up to a **maximum of \$150,000** from safety funds controlled by the **Office of the Commissioner of Railroads** and the **highway project** shall pay \$30,000 for the cost of the crossing **signal materials and labor**. The **Union Pacific Railroad Co.** shall pay 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. The maximum funding provided by the **State of Wisconsin** may be adjusted to reflect the actual reasonable and necessary cost of the materials and installation. The actual reasonable and necessary costs shall be determined by the **Office of the Commissioner of Railroads** after hearing, if necessary.

7. That the **Union Pacific Railroad Co.** shall bear 27% of the cost of the **crossing construction**. The public highway project shall bear the remaining costs, except for 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.

8. That jurisdiction is retained.

Dated at Madison, Wisconsin, (February 7, 2008).

By the Office of the Commissioner of Railroads.

Rodney W. Kreunen
Commissioner of Railroads