

SURFACE TRANSPORTATION BOARD

DECISION

Docket No. FD 35087<sup>1</sup>

CANADIAN NATIONAL RAILWAY COMPANY AND GRAND TRUNK  
CORPORATION—CONTROL—EJ&E WEST COMPANY

Decision No. 26

Decided: December 17, 2010

Digest:<sup>2</sup> This decision reviews the findings of an independent audit of reports filed by Canadian National Railway Company (CN) in connection with its acquisition of EJ&E West Company. The Board continues to have concerns, principally at 4 locations in Illinois and Indiana, where blocked crossings have increased significantly since the acquisition, resulting in vehicle delay and traffic congestion. The Board will require additional reporting from CN, order another audit to be conducted in 2011, and extend the oversight period for this acquisition 1 year, to January 2015.

When the Board approved Canadian National Railway Company's (CN's) acquisition of EJ&E West Company, it required CN to file reports on operational and environmental matters and established an oversight process. As part of that process, the Board ordered an independent audit and verification of certain information provided in CN's monthly operational reports. The Board has carefully reviewed the findings of the audit, supplemental reports, and raw data on

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<sup>1</sup> This decision also embraces Elgin, Joliet & Eastern Railway—Corp. Family Exemption—EJ&E West Co., FD 35087 (Sub-No. 1); Chicago, Central & Pacific Railroad—Trackage Rights Exemption—EJ&E West Co., FD 35087 (Sub-No. 2); Grand Trunk Western Railroad—Trackage Rights Exemption—EJ&E West Co., FD 35087 (Sub-No. 3); Illinois Central Railroad—Trackage Rights Exemption—EJ&E West Co., FD 35087 (Sub-No. 4); Wisconsin Central Ltd.—Trackage Rights Exemption—EJ&E West Co., FD 35087 (Sub-No. 5); EJ&E West Co.—Trackage Rights Exemption—Chicago, Central & Pacific Railroad, FD 35087 (Sub-No. 6); and EJ&E West Co.—Trackage Rights Exemption—Illinois Central Railroad, FD 35087 (Sub-No. 7).

<sup>2</sup> The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. Policy Statement on Plain Language Digests in Decisions, EP 696 (STB served Sept. 2, 2010).

blocked crossings that the Board directed CN to submit, as well as written public comments on the audit report.

Based on the audit findings, our primary concern is blocked crossings in certain areas caused by slow or stopped trains. The impact of the transaction, thus far, has resulted in an overall decrease in the average number of blocked crossings. On a monthly basis, blockages have fallen by 10.8% along the entire former Elgin, Joliet and Eastern line, with instances of blockages lasting more than 15 minutes dropping nearly 41%. Yet there remain 4 areas of concern where average road crossing blockages lasting 10 minutes or more per month have increased significantly: (1) the area around Leithton, Ill., at Diamond Lake Road and Route 60/83, where the average number of blockages per month has jumped by 267.4%; (2) a series of crossings in Griffith, Ind. (Broad Street, Main Street Griffith, and Elm Street), where the average monthly blockages have increased by 86.8%; (3) a series of crossings in Joliet, Ill., that have experienced a 68.2% increase in average monthly blockages; and (4) the Main Street crossing in Matteson, Ill., where average monthly blockages have risen 40.7%.

The Board intends to monitor these crossings closely and to take appropriate steps if improvement does not occur once the ongoing construction and infrastructure projects in the surrounding areas are completed. Accordingly, the Board will require CN to supplement its quarterly environmental reports, as described below. The Board will also conduct another audit of CN's progress in 2011 and will extend the 5-year monitoring and oversight period for this transaction for an additional year, to January 23, 2015.

## BACKGROUND

The CN/EJ&E Transaction. In Canadian National Railway and Grand Trunk Corp.—Control—EJ&E West Co., FD 35087 (STB served Dec. 24, 2008) (Approval Decision), the Board approved, subject to numerous environmental and other conditions, CN's acquisition of control of EJ&E West Company, a wholly owned, noncarrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E). The approval was subject to a 5-year monitoring and oversight period to allow the Board to examine closely various aspects of the transaction, including community concerns about post-acquisition increased delay and blockages at the numerous highway/rail at-grade crossings (places where rail lines cross streets at the same level, rather than going over or under the streets) on the former EJ&E line. As part of the oversight process, CN must file monthly reports on operational matters, including information pertaining to post-merger interchanges, railroad at-grade crossings, train volumes, accidents and incidents, and street crossing blockages.<sup>3</sup> CN is also required to file quarterly environmental reports on the implementation of the Board's environmental conditions.

In accordance with the Approval Decision, CN has filed monthly and quarterly reports since April 2009. The Board created an oversight website on which it posts the monthly and quarterly reports for the public to view easily and provide comments ([www.stbfinancedocket35087.com](http://www.stbfinancedocket35087.com)).

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<sup>3</sup> Approval Decision, slip op. at 26.

HDR Audit Report & Comments. In light of concerns raised by citizens and communities concerning the accuracy and completeness of CN's reports, including allegations involving the underreporting of crossing blockages lasting for 10 minutes or more and accidents and injuries occurring on the former EJ&E rail line, the Board tasked its independent third-party contractor, HDR Engineering, Inc. (HDR), with verifying the information contained in CN's latest reports (at that time, the November and December 2009 monthly reports). The Board directed HDR to investigate and prepare audit reports for the Board on 6 "task" areas of concern: community and agency outreach; train noise and vibration; train volumes and street blockages; vehicle delays and traffic congestion; review of operational accidents; and public grade crossing signs. On April 14, 2010, HDR issued its final audit report, which included technical memos on each of the task areas identified by the Board.

The Board held an oral hearing on April 28, 2010 to obtain an explanation as to why CN's submissions to the Board on crossing blockages of 10 minutes or more differed from data automatically reported by its own crossing gates and why CN did not disclose that it had such information.<sup>4</sup> The Board also ordered CN to provide supplemental reports and raw data on crossing blockages lasting ten minutes or more (as discussed under "Task 3: Train Volumes and Crossing Blockages" below). See Canadian Nat'l Ry. and Grand Trunk Corp.—Control—EJ&E W. Co., FD 35087 (STB served Apr. 21, 2010) (Decision No. 23). After the hearing, the Board sought public comments on the audit report.

The findings of the audit and comments<sup>5</sup> on each task area are discussed below:

*Task 1: Community and Agency Outreach.* HDR sought information about CN's coordination efforts with communities along the former EJ&E rail line, including those with which CN has negotiated agreements addressing issues of local concern. In addition, the Board developed a questionnaire that was sent to all of the communities along the former EJ&E rail line between Leithton, Ill., and Kirk Yard in Gary, Ind., seeking to determine whether CN had complied with Board-imposed conditions related to emergency response, hazardous material

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<sup>4</sup> The Board intends to address the outcome of the hearing and CN's failure to disclose its crossing data in a separate decision.

<sup>5</sup> Prior to the hearing, on April 21, 2010, United States Senator Richard Durbin (IL) and Representative Melissa Bean (IL) sent a letter to the Board. Following the hearing, U.S. Representatives Melissa Bean, Peter J. Visclosky, Bill Foster, Donald A. Manzullo, and Judy Biggert jointly submitted a letter on May 28, 2010. On May 28, 2010, comments on the audit and hearing also were filed by CN and The Regional Answer to Canadian National Coalition (TRAC). CN filed a reply to TRAC's initial comments on June 25, 2010. On July 28, 2010, TRAC replied to CN's June 25 comments, and CN replied to TRAC's comments on August 6, 2010.

training, blocked crossings, dispatching monitors, and establishment of quiet zones<sup>6</sup>, as well as with any negotiated agreements entered into with the communities. HDR found that CN has initiated extensive communication with affected communities and has generally complied with most conditions and negotiated agreements, with a few exceptions related to emergency response plans, the creation of quiet zones, and notice to emergency service dispatchers of blocked crossings.

In its comments on the audit report, filed May 28, 2010, CN asserts that HDR's final audit report shows that CN is complying with its obligations under the Approval Decision and is cooperating with local communities to mitigate the adverse impacts of the transaction-related increase in rail traffic along the former EJ&E rail line. For communities with negotiated agreements, CN states that it will continue to work closely with these communities to address concerns as they arise. CN avers that it will also continue working with communities currently without negotiated agreements to address their concerns and would work with them to establish quiet zones (whether through the Federal Railroad Administration (FRA) or negotiated agreements), provide free emergency hazmat training to interested emergency service providers, and provide communities with the Active Crossing System (ACS) software, a preferred alternative to dispatching monitors.<sup>7</sup> CN maintains that it will include additional documentation in its quarterly environmental reports to detail these efforts. CN notes that it has sent copies of its emergency response plan to the communities that had reported that they had not received it.

*Task 2: Noise and Vibration.* HDR reviewed anecdotal complaints received by the Board concerning train-related noise and vibration, which HDR sorted into 4 categories: excessive noise, locomotive horn use in quiet zones, ground-borne vibration, and noise from idling locomotives. HDR found that complaints concerning excessive noise, ground-borne vibration, and noise from idling locomotives did not suggest noise and vibration levels substantially different than what the Board's Final Environmental Impact Statement had estimated. HDR further concluded that a combination of circumstances likely had contributed to the complaints concerning horn use in quiet zones: possible increased horn use at night; obligatory horn use in quiet zones due to workers, equipment, or pedestrians in the right-of-way; or horn use at a crossing located between 2 quiet zones in Barrington, Ill., which may be construed as horn use in a quiet zone.

In its May 28 comments, TRAC urges the Board to review HDR's findings on noise and vibration, because the audit findings were prepared without field monitoring.

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<sup>6</sup> A quiet zone is a segment of track along which locomotive horns need not be routinely sounded. The Federal Railroad Administration requires railroads to sound horns at highway/at-grade crossings unless a quiet zone has been established.

<sup>7</sup> In Decision No. 24, served August 30, 2010, the Board reopened the Approval Decision to modify Condition No. 18 to require the installation of ACS in lieu of the closed-circuit television systems at specific at-grade crossings.

In its May 28 comments, CN states that it remains willing to discuss noise-related issues with any community, will respond appropriately to reasonable requests, and will reach out to communities on noise-related issues. CN maintains that its use of horns in quiet zones conforms to FRA requirements and notes the tradeoffs involved in daytime and nighttime operations—that while daytime operations may reduce night time noise, it will likely result in an increase in vehicle delays at grade crossings with higher traffic volumes during daytime hours.

*Task 3: Train Volumes and Crossing Blockages.* HDR sought to determine the accuracy of information reported by CN concerning train volumes and blockages by trains occupying highway/rail at-grade crossings for 10 minutes or more, as reported in CN’s November 2009 and December 2009 monthly reports. HDR found minor inconsistencies between the reported and actual train volumes. The inconsistencies were attributed to CN’s method of transmitting information from its automated data systems to the summaries used to prepare its monthly and quarterly reports to the Board.

More significantly, in the course of investigating crossing blockages, HDR discovered that many of the highway/rail at-grade crossings on the former EJ&E rail line are equipped with “Remote Terminal Units” (RTUs), which transmit information to a dispatching office when a grade-crossing signal system is activated for at least ten minutes.<sup>8</sup> In examining the RTU-generated data, HDR found significant discrepancies between the reported number of crossing blockages (14 blockages in CN’s November and December 2009 reports) and the number of instances that RTUs detected that a crossing signal system was activated for 10 minutes or more for that time period (1,443 blockages, including the 14 instances set forth in CN’s monthly reports).<sup>9</sup> According to HDR’s report (and CN’s monthly reports), CN had only been reporting

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<sup>8</sup> The RTUs record when crossing gates are down. The RTUs generate fax reports that are sent directly to the railroad dispatching desk that controls the rail line. When the gate down time exceeds 10 minutes, the RTU sends a time-stamped fax to the train dispatcher. When the crossing gate is raised, the RTU sends another fax to the train dispatcher indicating that the gate has been raised, along with the time that the crossing gate went up. The total elapsed time is then calculated and archived.

<sup>9</sup> Several of the conditions imposed in the Approval Decision address crossing blockages of 10 minutes or more. Condition No. 2 requires CN to report “the frequency, cause and duration of train blockages of crossings of 10 minutes in duration or greater, listing each delay and including any notifications from persons affected by the blockage and the time of the beginning and end of each delay. [CN] shall summarize the cause of each type of blockage that [CN] self-report[s] and shall state how [CN] intend[s] to reduce the incidence of all blockages not attributed to emergencies or weather-related incidents.” Approval Decision, slip op. at 73. Condition No. 3 requires CN to distribute to communities adjacent to, or intersected by, the former EJ&E line the contact information for the railroad’s community liaison to ensure that the railroad is “aware of the highway/rail at-grade crossing blockages lasting 10 minutes or more.” Id. Voluntary Mitigation No. 35 requires that CN “operate under U.S. Operating Rule No. 526 (Public Crossings), which provides that a public crossing must not be blocked longer than 10 minutes unless it cannot be avoided and that, if possible, rail cars, engines, and rail equipment may not stand closer than 200 feet from a highway/rail at-grade crossing when there is an

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crossing blockage events caused by a train that was stopped for more than 10 minutes and had not been reporting instances when trains were continuously moving across the crossing during the time the RTU-generated data reported that the crossing signal system was activated for more than 10 minutes.

In response to HDR's findings on the reporting of train volumes, CN states that it has begun using improved methodologies for counting trains and currently is creating a more automated approach to reporting train counts that should improve the accuracy of the information reported to the Board. As for crossing blockages, pursuant to the Board's direction in Decision No. 23, CN indicated that it has supplemented past crossing reports with RTU-reported data, and has provided all available historical RTU data.<sup>10</sup> CN states that its monthly reports, starting with the report for April 2010, now include all known instances of crossing signal system activations of 10 minutes or more, whatever the cause. CN adds that several planned capital improvement projects, which include infrastructure improvements and other routings that will allow for increased train speed, will reduce the recurring blockage problems and vehicular delay caused by crossing blockages. To further reduce the frequency and duration of blockages, CN outlines several intended changes to its operating practices, including changes to operations in Hawthorne Woods, Ill., Munger, Ill., and West Chicago, Ill. CN also states that it has improved the system that captures and records RTU information and that it is reviewing whether and where additional RTUs might be added to enhance CN's ability to capture crossing signal system activations of 10 minutes or more.

In its May 28 comments, TRAC contends that CN's underreporting was a willful effort to mislead the Board and the public and highlights the fact that CN never voluntarily disclosed the existence of the RTU technology. TRAC expresses concern that the number of crossing-blockages will increase once CN operates over the EJ&E rail line at full capacity. TRAC also questions HDR's capacity as an "independent auditor." TRAC offers the Board several suggestions on how to proceed, including requiring CN to provide details on crossing blockage frequency once CN is running the former EJ&E line at full capacity and infrastructure upgrades are completed; extending the oversight period; and assigning the audit powers to the Government Accountability Office or to another independent auditor.

Following the issuance of the audit report, United States Senator Richard Durbin (IL) and Representative Melissa Bean (IL) sent a letter to the Board on April 21, 2010, encouraging vigorous oversight of CN and consideration of penalties and fines if CN is found to have violated the Board's orders. In a letter dated May 28, 2010, United States Representatives Melissa Bean , Peter J. Visclosky (IN), Bill Foster (IL), Donald A. Manzullo (IL), and Judy Biggert (IL), submitted a joint statement, expressing disappointment in CN's failure to report on all crossing

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adjacent track (Applicants 2008a). If the blockage is likely to exceed this time frame, then the train shall be promptly cut to clear the blocked crossing or crossings." Id. at 63.

<sup>10</sup> CN submitted this data on April 26, 2010.

blockages along the EJ&E rail line lasting 10 minutes or more and requesting that the Board impose additional mitigation and extend its oversight period by one year.

On June 25, 2010, CN replied to TRAC's comments. CN details the limitations of using RTU data to provide systematic and reliable crossing blockage information, including several issues CN has encountered in the process of providing data to the Board. To correct various errors, or otherwise improve the accuracy and consistency of its data submitted on April 26, CN submitted revised data on August 3, 2010.

*Task 4: Vehicle Delay and Traffic Congestion.* HDR also investigated concerns involving vehicle delay occurring at highway/rail at-grade crossings where additional train traffic was expected as a result of the transaction. HDR examined the RTU-generated data collected in Task 3 and found that many of the blocked crossings described in complaints were the ones with frequent blockages of 10 minutes or more, notably Hawthorne Lane in West Chicago, Ill., Diehl Road in Naperville, Ill., Liberty Street in Aurora, Ill., and Western Avenue in Park Forest, Ill.

In its May 28 comments, CN notes that blockages at several of the identified crossings should be reduced upon completion of planned infrastructure improvements.

*Task 5: Review of Operational Accidents.* After reviewing comments received by the Board that CN was not reporting all train operation accidents and incidents, HDR audited CN's November and December 2009 monthly reports on accidents and incidents and verified whether the reported information was consistent with the information maintained by the FRA. HDR found that CN consistently reported to the Board accidents and incidents that: (1) resulted in death, medical treatment, or occupational illness to CN on-duty personnel, or (2) involved rail equipment resulting in damage exceeding FRA's monetary threshold (\$8,900 in 2009; \$9,200 in 2010) for reporting equipment accidents and incidents. HDR found that CN was not reporting grade crossing accidents or incidents if it did not exceed either of these 2 thresholds. HDR recommended that the Board clarify whether all grade crossing incidents (regardless of the damage cost) should be included in CN's monthly reports.

CN has since supplemented its prior monthly reports through March 2010, to include all accidents and injuries on highway/rail at-grade crossings, regardless of whether such incidents resulted in injuries to or illness of CN on-duty personnel or rail equipment accidents exceeding the FRA's monetary threshold. CN further indicates that its April 2010 report and all future reports will include all of this information.

In its May 28 comments, TRAC asserts that CN has failed to include pertinent information in its reports and cites 2 incidents that TRAC contends CN failed to report or understated the severity of the incident. In its June 25 reply to TRAC's comment, CN states that both incidents were addressed in its reports to the Board.

*Task 6: Public Grade Crossing Signs.* Finally, HDR looked into CN's compliance with Board conditions requiring temporary and permanent signs at each highway/rail at-grade crossing, as well as concerns that the signs were not visible enough and that the signs listed different phone numbers for motorists to report problems. In the audit report, HDR states that

CN acknowledged that different emergency phone numbers appeared on different emergency notification signs but informed HDR that all the phone numbers directed callers to CN's Police Communications Center. CN informed HDR that it would be installing new signs that comply with the latest revised Manual on Uniform Traffic Control Devices (MUTCD) standards and that such signs would be installed by the end of June 2010. HDR recommended that any future problems dealing with visibility of permanent signs be addressed on a case by case basis.

In its June 25 comments, in reply to TRAC's initial comments, as well as its second 2010 Quarterly Report filed with the Board on July 12, 2010, CN states that it has installed permanent signs that comply with the requirements of MUTCD. In its initial comments following the audit, and reiterated in its July 28 comments, TRAC asserts that CN's claims regarding the installation of signage have been disingenuous and inaccurate. TRAC contends that the recently-installed signs fail to meet MUTCD requirements governing the size of emergency notification signs. In response, CN states that TRAC has misinterpreted MUTCD guidelines as they apply to emergency notification signs, and maintains that its signs conform to the guidance and comply with the standards set forth in MUTCD.

RTU Data and Board Analysis. As previously noted, in light of the audit findings regarding the underreporting of blocked crossings lasting 10 minutes or more, the Board, in Decision No. 23, directed CN to immediately begin including all known occurrences of street crossing blockages of 10 minutes or more in future monthly and quarterly reports as reflected in the RTU-generated data, or any other information available to CN. CN was also directed to resubmit all previous reports that omit RTU-data for crossings blocked by moving trains. The Board further ordered CN to submit in electronic format all historical RTU-data in its possession (or otherwise available to it), for any past period for which it was available, for all crossings along the acquired line.

CN submitted the following to the Board on April 26, 2010: (1) summary sheets and complete raw RTU data relating to crossing signal system activations lasting for 10 minutes or more, covering the period from July 20, 2007, to April 9, 2010; (2) all prior blocked crossing reports (February 2009 to March 2010) restated to include added RTU data drawn from the raw data; and (3) CN's dispatcher spreadsheets from April 2009, when CN first began to use them to prepare monitoring reports, through March 2010. On August 3, 2010, CN submitted revised RTU data to correct various errors in, and otherwise improve the accuracy and consistency of, the information previously submitted. The submission of the revised data also included data from the months of April, May, and June 2010.

The Board has performed its own analysis of the revised raw RTU data submitted by CN, relating to notifications of blocked crossings lasting for 10 minutes or more from July 20, 2007 (the earliest date for which such data has been retained) to June 30, 2010.<sup>11</sup> The submitted data

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<sup>11</sup> The Board's analysis excluded data from July 2007 because it did not include blockages for the entire month. The Board also excluded data from March 2008 due to the abnormally low number of detected activations. In a letter dated August 3, 2010, which CN submitted with its revised RTU data, CN explains that in March 2008, many of the RTUs on the

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covers the entire former EJ&E rail line, including crossings not covered in the area examined by HDR. The Board’s analysis compared the frequency of crossing blockages 17 months prior to the transaction (August 2007 to January 2009, excluding March 2008, or “pre-merger”), to the frequency of crossing blockages 17 months following the transaction (February 2009 to June 2010 or “post-merger”). The Board also examined the time of day (weekday, weekday evening, weekend, or weekend evening) the blockages occurred.

As shown in Table 1 below, the former EJ&E line experienced 2,218 fewer blockages over the last 17 months, compared to the 17 months prior to the transaction. The total number of blockages lasting over 15 minutes dropped nearly by half, from 8,293 blockages, pre-merger, to 4,895 blockages, post-merger. On a monthly average basis, blockages fell by 10.8% along the entire former EJ&E rail line, with instances of blockages lasting more than 15 minutes dropping nearly 41%, post-merger. The average number of monthly blockages lasting between 10 to 15 minutes increased (by 9.6%); most of these blockages occurred during weekday evenings (7 pm to 7 am) or weekends, with the average number of blockages during weekday hours (7 am to 7 pm) dropping slightly (by 4.2%).<sup>12</sup>

<b>Total Blockages</b>		<b>Length of Road Blockage</b>		
<b>Period</b>	<b>Months</b>	<b>10-15 min</b>	<b>15+ min</b>	<b>Total</b>
Pre-Merger	17	12,293	8,293	20,586
Post-Merger	17	13,473	4,895	18,368
Total Change		1,180	-3,398	-2,218
Change		9.6%	-41.0%	-10.8%
<b>Average Blockages per Month</b>		<b>Length of Road Blockage</b>		
<b>Period</b>	<b>Months</b>	<b>10-15 min</b>	<b>15+ min</b>	<b>Total</b>
Pre-Merger	17	723.1	487.8	1210.9
Post-Merger	17	792.5	287.9	1080.4
Change		9.6%	-41.0%	-10.8%

A similar pattern emerges when the comparison is broken down by subdivision. See Table 2 below.<sup>13</sup> Along the former EJ&E Western Subdivision (WSD), which extends south

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former EJ&E rail line were not working because they were being converted from analog to digital technology.

<sup>12</sup> Appendix A presents a complete comparison of road crossing blockages, including a breakdown comparison of blockages at different times of the day.

<sup>13</sup> Appendix B presents the breakdown of blockages by subdivision. In addition to the Western and Eastern Subdivisions, information is provided for the H Yard (located near Joliet) (HYD), Illinois River Line (which joins the Western Subdivision near Normantown, Ill.) (IRL),  
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from Waukegan, Ill., to Joliet, Ill., the average number of blockages per month fell by 16.2%, with the number of average monthly blockages lasting more than 15 minutes decreasing by 45.1%, post-merger. Along the former EJ&E Eastern Subdivision (ESD), which runs eastward from Joliet to Griffith, Ind., then northward to Gary, Ind., average blockages per month rose by 12.1%, but the average number of blockages lasting more than 15 minutes fell by 30.0%.

**Table 2.: Average Blockages per Month by Subdivision  
Using Pre-Merger (Aug 2007 to Jan 2009, excluding March 2008) and Post-Merger  
(Feb 2009 to June 2010) RTU Data**

Western Subdivision		Length of Road Blockage		
Period	Months	10-15 min	15+ min	Total
Pre-Merger	17	373.7	218.7	592.4
Post-Merger	17	376.5	120.1	496.6
Change		0.7%	-45.1%	-16.2%
Eastern Subdivision		Length of Road Blockage		
Period	Months	10-15 min	15+ min	Total
Pre-Merger	17	215.8	137.7	353.5
Post-Merger	17	299.8	96.4	396.2
Change		38.9%	-30.0%	12.1%

Based on this analysis, it appears that following the transaction, overall, there has been a decrease in the frequency of crossing blockages, particularly for blockages lasting more than 15 minutes.<sup>14</sup> As discussed further below, however, the Board's analysis shows 4 crossing areas that experienced a significant increase in the average number of crossed blockages lasting 10 minutes or more per month (see Table 3).<sup>15</sup>

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Lake Front Line (LFL), and City Line (CTY) (both located at the end of the Eastern Subdivision along Lake Michigan).

<sup>14</sup> We note, however, that these changes have been measured during a period that included an overall economic downturn and a concomitant decrease in rail traffic. It is unclear as of yet whether this improved crossing trend will continue as traffic trends upward with improving economic conditions. The Board will continue to examine this crossing data as part of the oversight process in order to detect any trend changes due to the economy. In addition, as discussed further below, the Board will conduct another audit for 2011.

<sup>15</sup> Appendix C contains a table and graphs comparing pre-merger and post-merger crossing blockages (average per month), broken down by specific crossing and milepost. The table in Appendix C shows that Old Locks Road also experienced a significant increase in the number of average monthly blockages lasting 10 minutes or more. Old Locks Road, however, is a private industrial crossing with no public access.

**Table 3: Average Road Crossing Blockages per Month by Subdivision and Milepost for Areas of Heightened Concern**

<b>MP - Location – Subdivision</b>	<b>Pre-Merger</b>	<b>Post-Merger</b>
59.13 - Diamond Lake Road - WSD	8.9	38.4
59.02 - Rt 60/83 - WSD	13.2	42.8
1.80 - North Rowell Avenue - ESD	27.4	39.3
2.86 - South Rowell Avenue - ESD	1.9	6.8
3.15 - Country Club Road - ESD	0.6	4.2
21.61 - Main Street Matteson - ESD	65.8	92.6
36.22 - Broad Street - ESD	30.5	52.0
36.52 - Main Street Griffith - ESD	1.4	4.8
37.02 - Elm Street - ESD	0.0	2.8

## DISCUSSION AND CONCLUSIONS

Findings and Conclusions of the Audit. Overall, the audit findings demonstrate that CN has been working to comply with the obligations imposed by the Approval Decision and cooperating with affected communities to address local concerns related to the transaction. In reviewing the audit’s findings on noise and vibration, we find nothing to suggest that CN has failed to comply with the mitigation conditions imposed in the Approval Decision, or that additional noise and vibration analysis or mitigation is warranted at this point.<sup>16</sup> As previously discussed, CN has submitted more comprehensive accident and incident reports that capture all accidents and injuries on highway/rail at-grade crossings, regardless if such incidents resulted in injuries to or illness of CN on-duty personnel or rail equipment accidents exceeding the FRA’s monetary threshold.

As to the emergency notification signs, we have reviewed the submitted excerpts of the MUTCD guidelines and CN’s August 6 reply to TRAC’s July 28 filing, asserting that CN’s signs are smaller than the current MUTCD guidelines require and raising concerns about the placement of CN’s signs. Specifically, TRAC states that the table designating the minimum

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<sup>16</sup> The Board has imposed several mitigation conditions to address noise and vibration, which involve CN establishing and maintaining Quiet Zones (Condition No. 8; Voluntary Mitigation Nos. 3, 4, and 5); implementing noise mitigation measures (Voluntary Mitigation No. 77); minimizing construction-related noise (Voluntary Mitigation Nos. 78 and 79); maintaining and inspecting trains and rails to determine ways to reduce noise and vibration (Condition No. 26; Voluntary Mitigation Nos. 80 and 81); complying with decibel limits set by the FRA (Voluntary Mitigation Nos. 3, 4, and 5); implementing noise mitigation measures (Voluntary Mitigation No. 82); installing or relocating a Wheel Impact Load Detector on the EJ&E rail line (Voluntary Mitigation Nos. 3, 4, and 5); implementing noise mitigation measures (Voluntary Mitigation No. 83); notifying the U.S. Department of Energy Fermi National Accelerator Laboratory of potentially significant operational changes that may affect the laboratory’s vibration-sensitive equipment (Condition No. 27); and documentation and reporting of efforts to mitigate noise and vibration (Condition No. 28).

sizes for crossing signs and plaques in the MUTCD guidelines requires “signs designated 8B.05” to be between 30 square inches and 48 square inches. TRAC further asserts that CN’s emergency notification signs are located across the track from the traffic it faces and are not legible unless the reader stands dangerously close to the tracks.

The size requirements cited by TRAC apply to Section 8B.05 Stop and Yield signs, and do not apply to the Section 8B.18 Emergency Notification signs that CN has installed in accordance with Voluntary Mitigation No. 9. Voluntary Mitigation No. 9 provides, in relevant part, that for each public grade crossing on the former EJ&E line, Applicants should provide and maintain permanent signs prominently displaying both a toll-free telephone number and a unique grade-crossing number that comply with Federal Highway Regulations at 23 C.F.R. pt. 655. The Federal Highway Regulations, in turn, incorporate by reference the Federal Highway Administration’s MUTCD (see 23 C.F.R. § 655.603(a)). The MUTCD guidelines that apply to emergency information signs at crossings are contained in Section 8B.18, and it appears that CN’s signs comply with the requirements of those guidelines. Section 8B.18 contains no specific size mandates, but rather states that emergency notification signs should be large enough to provide the necessary contact and other information, and that use of larger signs that might obstruct the view of rail traffic or other highway vehicles should be avoided.<sup>17</sup> In addition, CN’s placement of the signs appears to be consistent with the intended purposes of the signs (to provide emergency contact information if a vehicle is disabled in the crossing, or if there is a

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<sup>17</sup> Specifically, Section 8B.18 states:

01 Emergency Notification (I-13) signs . . . should be installed at all highway-rail grade crossings, and at all highway-LRT grade crossings on semi-exclusive alignments, to provide information to road users so that they can notify the railroad company or LRT agency about emergencies or malfunctioning traffic control devices. [FIGURE OMITTED] 02 When Emergency Notification signs are used at a highway-rail grade crossing, they shall, at a minimum, include the USDOT grade crossing inventory number and the emergency contact telephone number. 03 When Emergency Notification signs are used at a highway-LRT grade crossing, they shall, at a minimum, include a unique crossing identifier and the emergency contact telephone number. 04 Emergency Notification Signs shall have a white legend and border on a blue background. 05 The Emergency Notification signs shall be positioned so as to not obstruct any traffic control devices or limit the view of rail traffic approaching the grade crossing. Guidance: 06 Emergency Notification signs should be retroreflective. 07 Emergency Notification signs should be oriented so as to face highway vehicles stopped on or at the grade crossing or on the traveled way near the grade crossing. 08 At station crossings, Emergency Notification signs or information should be posted in a conspicuous location. 09 Emergency Notification signs mounted on Crossbuck Assemblies or signal masts should only be large enough to provide the necessary contact information. Use of larger signs that might obstruct the view of rail traffic or other highway vehicles should be avoided.

warning device malfunction or accident), and also adheres to the MUTCD Section 8B.18 standard that emergency notification signs should be positioned so as not to obstruct traffic control devices or limit the view of rail traffic approaching the crossing.

TRAC states that the signs are not always legible to drivers. However, based on the language in Section 8B.18, emergency notification signs are not regulatory or warning signs intended to provide notice to road users of traffic laws or hazards, such as those addressed in Section 8B.05, which necessarily must be large enough to be read by drivers at posted highway speeds. Rather emergency notification signs are intended to provide information for people in stopped vehicles and to do so without blocking road or crossing visibility. While CN's emergency notification signs appear to comply with applicable law, the Board encourages CN to consider any latitude it may have consistent with Section 8B.18 to accommodate the concerns raised by TRAC about the size and prominence of the signs.<sup>18</sup>

With respect to blocked crossings, the Board is addressing today the outcome of the Board's April 2010 hearing and CN's failure to disclose its RTU-generated crossing data in a separate decision. See Canadian Nat'l Ry. & Grand Trunk Corp.—Control—EJ&E West Co., FD 35087, Decision No. 27 (STB served December 21, 2010). CN has supplemented its past reports and continues to provide the RTU-generated data on blockages lasting 10 minutes or more. As discussed below, 4 areas have experienced a significant increase in blocked crossings, which has resulted in vehicle delay and traffic congestion. These delays may be due to construction of transaction-related infrastructure improvements, which should alleviate the frequency and duration of blocked crossings once completed. However, the significant increase in blocked crossings in certain areas is of great concern to the Board. Accordingly, as discussed below, the Board will continue to closely monitor the areas where blocked crossings have significantly increased, as well as the future reports that CN will be filing.

Board RTU Analysis and Conclusions. The Board's analysis of the RTU data indicates that thus far there has been an overall decrease in crossing blockages, with a drop in crossing blockages lasting over 15 minutes since the date of the transaction.<sup>19</sup> However, the Board remains concerned about 4 crossing areas. These areas, as noted above, have experienced a significant increase in blocked crossings of 10 minutes or more post-merger. While the Board recognizes that construction activities around these crossings have most likely contributed to this increase (and that when the planned infrastructure improvements at those locations are completed, the number of blockages lasting 10 minutes or more likely will decrease), we will continue to monitor closely the following areas.

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<sup>18</sup> In a letter dated November 11, 2010, CN states that, while its emergency signs comply with applicable regulations and mitigation conditions, it is working with Barrington to provide additional emergency notification signs at grade crossings. CN also notes that it intends to offer this supplemental signage to other communities along the former EJ&E line.

<sup>19</sup> As noted above, this decrease in traffic may in part reflect a downturn in the overall economy and thus an overall decrease in rail traffic for a measurable portion of the reported period.

1. There is a significant increase in monthly average blockages around Leithton, Ill., at Diamond Lake Road (WSD milepost 59.13) and Route 60/83 (WSD milepost 59.02). In that area, the average number of blockages per month has jumped by 267.4%. Given the proximity of this area to the connection between CN's Waukesha Subdivision and the EJ&E Western Subdivision, an increase in blockages post-merger could be expected. Further, current construction activities related to upgrading the connection and construction of double track have likely contributed to this upswing. CN notes in its May 28 comments that its planned capital improvements in this area are intended to allow trains to operate at 25 miles per hour instead of 10 mile per hour, which likely will result in fewer blocked crossings or blockages shorter in duration once the improvements are completed. Nevertheless, close monitoring of that crossing is warranted given the significant increase in blockages that have taken place following the transaction.

2. A series of crossings in Joliet, Ill.—North Rowell Avenue (ESD milepost 1.8), South Rowell Avenue (ESD milepost 2.86), and Country Club Road (ESD milepost 3.15)—have experienced a 68.2% increase in average monthly blockages, post-merger. This area raises concerns even though the current installation of double track in this area may be contributing to the uptick, and, as CN notes, once the construction is complete, trains should be able to bypass the East Joliet Yard at a higher speed, thus reducing the length of delays in the area.

3. At the Main Street crossing in Matteson, Ill. (ESD milepost 21.61), average monthly blockages have gone up by 40.7%. The crossing's proximity to construction currently occurring around the connection between CN's Chicago Subdivision and the EJ&E Eastern Subdivision may explain the increase in blockages. As CN notes, the changes to the connection, when completed, should allow trains to pass through the connection faster, and potentially allow many trains moving between the subdivisions to avoid crossing Main Street at all, thus reducing the number of blockages at this crossing. Nevertheless, the sizeable increase in the number of blockages is a concern.

4. The average monthly blockages for a series of crossings in Griffith, Ind.—Broad Street (ESD milepost 36.22), Main Street Griffith (ESD milepost 36.52), and Elm Street (ESD milepost 37.02)—have increased by 86.8% post-merger. This raises concerns even if the increase is temporary and could be reduced once CN's construction of a connection between the Elsdon Subdivision and the Eastern Subdivision is completed.

To keep the Board updated on the blockages at these locations, CN is directed to provide additional information on these 4 crossing areas in its future quarterly environmental reports until further order of the Board. In addition to the information required by Condition No. 2, which includes information on the cause of each blockage lasting 10 minutes or more, as well as how CN intends to reduce the blockages, CN shall include information on the extent to which its construction projects in these areas are contributing to the blockages, the progress of the construction, and, upon completion, how such construction projects will alleviate (or are alleviating) the frequency and duration of blocked crossings, if at all.

As TRAC notes, the number of crossing blockages at other locations along the former EJ&E line is likely to increase once CN operates the former EJ&E line at full capacity. Accordingly, CN also shall provide the above information in its quarterly environmental reports for any additional public crossing areas that experience a 25% increase in average blockages per month during the course of a reporting quarter.

We have decided to conduct a similar audit next year to verify CN's reports and to assist the Board in monitoring the impact of the transaction. In light of the information learned through the hearing and the audit process, and the ongoing concerns that have been raised by commenters, we will also extend the oversight and reporting period for an additional year.

### CONCLUSION

During the course of CN implementing its operating plan on the former EJ&E line, the monitoring and oversight required by the Approval Decision has and should continue to be a useful mechanism to identify and address potentially significant issues as they arise. The audit process has served as a valuable tool in verifying the information CN has submitted in its monthly and quarterly reports and identifying areas of concern. Of particular significance, the audit revealed the availability of RTU-generated data, which has provided a better picture of how the transaction has impacted affected communities so far. In the months following the acquisition, the EJ&E rail line has experienced an overall decline in crossing blockages, with a more significant drop in crossing blockages lasting more than 15 minutes. However, the Board intends to monitor closely all crossings, particularly those identified in this decision, so that we can take further appropriate action should circumstances warrant.

This action will not significantly affect either the quality of the human environment or the conservation of energy resources.

It is ordered:

1. CN shall supplement its reports as described in this decision.
2. The oversight period for this transaction shall be extended for an additional year, until January 23, 2015.
3. This decision is effective on the date of service.

By the Board, Chairman Elliott, Vice Chairman Mulvey, and Commissioner Nottingham.

## Appendix A

### Comparison of Road Crossing Blockages

Using Pre-Merger (Aug 2007 to Jan 2009, excl Mar 2008) and Post-Merger (Feb 2009 to June 2010) RTU Data

#### Total Blockages

Period	Months	Length of Road Blockage					
		10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	17	12,293	5,740	1,689	388	141	335
Post-Merger	17	13,473	3,864	631	163	57	180

#### Average Blockages per Month

Period	Months	Length of Road Blockage					
		10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	17	723.1	337.6	99.4	22.8	8.3	19.7
Post-Merger	17	792.5	227.3	37.1	9.6	3.4	10.6
Change		9.6%	-32.7%	-62.6%	-58.0%	-59.6%	-46.3%

#### Average Blockages per Month: Weekdays (7:00 am to 7:00 pm)

Period	Months	Length of Road Blockage					
		10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	17	272.1	128.1	33.6	8.9	3.0	8.8
Post-Merger	17	260.7	75.5	13.2	3.9	1.5	5.1
Change		-4.2%	-41.1%	-60.7%	-56.3%	-51.0%	-42.0%

#### Average Blockages per Month: Weekday Evenings (7:00 pm to 7:00 am)

Period	Months	Length of Road Blockage					
		10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	17	241.4	120.7	35.9	8.4	2.8	5.3
Post-Merger	17	294.5	88.6	14.5	3.2	1.2	3.3
Change		22.0%	-26.6%	-59.6%	-61.3%	-55.3%	-37.8%

#### Average Blockages per Month: Weekends (7:00 am to 7:00 pm)

Period	Months	Length of Road Blockage					
		10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	17	108.0	46.9	14.1	2.6	1.4	3.5
Post-Merger	17	114.4	28.0	3.9	0.9	0.4	1.2
Change		5.9%	-40.4%	-72.5%	-63.6%	-75.0%	-64.4%

#### Average Blockages per Month: Weekend Evenings (7:00 pm to 7:00 am)

Period	Months	Length of Road Blockage					
		10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	17	101.6	41.9	15.6	3.0	1.1	2.1
Post-Merger	17	123.0	35.2	5.5	1.5	0.3	0.9
Change		21.0%	-16.0%	-65.0%	-49.0%	-73.7%	-55.6%

## Appendix B

### Comparison of Road Crossing Blockages by Division

Using Pre-Merger (Aug 2007 to Jan 2009, excl. March 2008) and Post-Merger (Feb 2009 to June 2010) RTU Data

#### Total Blockages by Division

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	WSD	17	6,353	2,580	730	186	69	153
	ESD		3,668	1,695	431	81	38	96
	HYD		1,079	533	120	19	7	28
	IRL		835	602	82	13	5	18
	LFL		165	252	303	84	19	32
	CTY		178	75	21	5	2	8
	CAL		15	3	2	0	1	0
	<i>Sub-Total</i>			<i>12,293</i>	<i>5,740</i>	<i>1,689</i>	<i>388</i>	<i>141</i>
Post-Merger	WSD	17	6,400	1,697	193	54	26	71
	ESD		5,097	1,331	170	55	14	69
	HYD		1,142	271	15	0	1	2
	IRL		476	241	31	5	2	17
	LFL		150	250	203	44	14	17
	CTY		207	74	18	5	0	4
	CAL		1	0	1	0	0	0
	<i>Sub-Total</i>			<i>13,473</i>	<i>3,864</i>	<i>631</i>	<i>163</i>	<i>57</i>

#### Average Blockages per Month: Western Sub Division (WSD)

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	WSD	17	373.7	151.8	42.9	10.9	4.1	9.0
Post-Merger	WSD	17	376.5	99.8	11.4	3.2	1.5	4.2
Change			0.7%	-34.2%	-73.6%	-71.0%	-62.3%	-53.6%

#### Average Blockages per Month: Eastern Sub Division (ESD)

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	ESD	17	215.8	99.7	25.4	4.8	2.2	5.6
Post-Merger	ESD	17	299.8	78.3	10.0	3.2	0.8	4.1
Change			39.0%	-21.5%	-60.6%	-32.1%	-63.2%	-28.1%

#### Average Blockages per Month: H Yard (HYD)

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	HYD	17	63.5	31.4	7.1	1.1	0.4	1.6
Post-Merger	HYD	17	67.2	15.9	0.9	0.0	0.1	0.1
Change			5.8%	-49.2%	-87.5%	-100.0%	-85.7%	-92.9%

#### Average Blockages per Month: Illinois River Line (IRL)

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	IRL	17	49.1	35.4	4.8	0.8	0.3	1.1
Post-Merger	IRL	17	28.0	14.2	1.8	0.3	0.1	1.0
Change			-43.0%	-60.0%	-62.2%	-61.5%	-60.0%	-5.6%

#### Average Blockages per Month: Lake Front Line (LFL)

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	LFL	17	9.7	14.8	17.8	4.9	1.1	1.9
Post-Merger	LFL	17	8.8	14.7	11.9	2.6	0.8	1.0
Change			-9.1%	-0.8%	-33.0%	-47.6%	-26.3%	-46.9%

#### Average Blockages per Month: City Line (CTY)

Period	Division	Months	Length of Road Blockage					
			10-15 min	15-30 min	30-60 min	60-90 min	90-120 min	120+ min
Pre-Merger	CTY	17	10.5	4.4	1.2	0.3	0.1	0.5
Post-Merger	CTY	17	12.2	4.4	1.1	0.3	0.0	0.2
Change			16.3%	-1.3%	-14.3%	0.0%	-100.0%	-50.0%

## Appendix C

### Average Road Crossing Blockages per Month by Division and Milepost

<b>DIV</b>	<b>MP</b>	<b>MP - Location - Division</b>	<b>Pre-Merger</b>	<b>Post-Merger</b>
WSD	73.20	73.20 - Clayton Street - WSD	0.1	0.1
WSD	73.00	73.00 - Washington Street Waukegan - WSD	1.2	0.2
WSD	72.85	72.85 - Water Street - WSD	0.4	0.1
WSD	69.75	69.75 - 22nd Street North Chicago - WSD	0.2	0.5
WSD	69.60	69.60 - Morrow Avenue - WSD	0.1	0.1
WSD	69.00	69.00 - Buckley Road N. Chicago - WSD	0.2	0.1
WSD	66.40	66.40 - Telegraph Road - WSD	0.2	0.0
WSD	65.74	65.74 - Rockland Road - WSD	1.2	0.0
WSD	65.60	65.60 - Arcadia Road - WSD	2.4	0.1
WSD	65.06	65.06 - Bradley Road - WSD	9.4	0.2
WSD	63.86	63.86 - Old School Road - WSD	0.6	0.0
WSD	63.33	63.33 - Saint Mary's Road - WSD	0.1	0.0
WSD	62.70	62.70 - Milwaukee Ave EB Start - WSD	0.3	0.1
WSD	62.20	62.20 - Milwaukee Avenue SR 21 - WSD	0.2	0.1
WSD	61.83	61.83 - Lakeview Parkway - WSD	0.1	0.0
WSD	60.42	60.42 - Butterfield Road - WSD	0.2	0.2
WSD	59.13	59.13 - Diamond Lake Road - WSD	8.9	38.4
WSD	59.02	59.02 - Rt 60/83 - WSD	13.2	42.8
WSD	56.91	56.91 - McHenry-Gilmer Road - WSD	1.4	1.5
WSD	55.44	55.44 - Old McHenry Road - WSD	0.6	0.4
WSD	54.73	54.73 - Oakwood Road - WSD	1.2	0.5
WSD	53.45	53.45 - Main Street - SR22 - WSD	0.3	0.4
WSD	53.26	53.26 - Paine Street - WSD	0.6	0.6
WSD	52.36	52.36 - Ela Road - WSD	0.6	0.4
WSD	51.56	51.56 - Cuba Road - WSD	4.6	1.9
WSD	50.42	50.42 - Lake Zurich Road - WSD	0.9	0.2
WSD	50.11	50.11 - Northwest Highway Rt 14 - WSD	0.8	0.0
WSD	49.79	49.79 - Hough Street Rt 59 - WSD	1.4	0.6
WSD	49.30	49.30 - Barrington Int E-Lock - WSD	0.9	0.2
WSD	49.29	49.29 - Main Street Barrington - WSD	1.1	0.4
WSD	47.90	47.90 - Otis Road - WSD	2.3	2.1
WSD	44.48	44.48 - Penny Road - WSD	6.6	4.1
WSD	43.97	43.97 - Sutton Road - WSD	7.5	5.2
WSD	41.90	41.90 - Shoe Factory Road - WSD	11.1	9.5
WSD	37.50	37.50 - Spaulding Road - WSD	9.4	8.4
WSD	37.50	37.50 - Gifford Road - WSD	0.1	0.2
WSD	36.95	36.95 - West Bartlett Road - WSD	13.0	7.8
WSD	35.68	35.68 - Stearns Road - WSD	27.4	22.4
WSD	33.89	33.89 - Army Trail Road - WSD	0.2	1.6
WSD	32.94	32.94 - Smith Road - WSD	0.9	1.3
WSD	30.24	30.24 - Hawthorne Lane - WSD	51.5	41.1
WSD	28.89	28.89 - West Washington Street West Chicago - WSD	55.1	37.1
WSD	28.77	28.77 - Church Street - WSD	42.9	26.1

WSD	28.55	28.55 - Ann Street - WSD	31.8	21.5
WSD	25.64	25.64 - Batavia-Warrenville Road - WSD	0.9	0.8
WSD	22.81	22.81 - Diehl Road - WSD	24.3	26.1
WSD	20.60	20.60 - Liberty Street - WSD	56.8	32.5
WSD	19.05	19.05 - Oswego Road Rt 34 - WSD	1.9	0.8
WSD	18.19	18.19 - 83rd Street - WSD	2.4	0.5
WSD	17.68	17.68 - 87th Street - WSD	0.9	0.5
WSD	17.03	17.03 - 91st Street - WSD	1.0	0.5
WSD	16.20	16.20 - 95th Street - WSD	3.3	2.8
WSD	14.60	14.60 - 111th Street - WSD	4.8	3.6
WSD	13.59	13.59 - Ferguson Road (119th St) - WSD	2.1	1.4
WSD	12.91	12.91 - Normantown Road - WSD	3.2	1.4
WSD	12.56	12.56 - Chapins Road - WSD	2.9	0.5
WSD	11.44	11.44 - 135th Street (Pilchers Road) - WSD	6.2	1.7
WSD	10.59	10.59 - Van Dyke Road - WSD	6.2	3.3
WSD	10.33	10.33 - 143rd Street - WSD	4.0	1.6
WSD	9.61	9.61 - Naperville Road Plainfield - WSD	12.2	2.4
WSD	9.53	9.53 - Rt 126 Plainfield - WSD	8.2	1.8
WSD	9.41	9.41 - Center Street Plainfield - WSD	7.8	1.9
WSD	9.28	9.28 - Eastern Avenue - WSD	5.2	1.4
WSD	8.99	8.99 - Lockport Street - WSD	3.4	1.5
WSD	7.61	7.61 - Renwick Road - WSD	0.5	0.9
WSD	6.87	6.87 - Essington Road - WSD	1.7	2.0
WSD	6.05	6.05 - Division Street - WSD	6.4	6.7
WSD	5.56	5.56 - Gaylord Road - WSD	11.4	13.3
WSD	3.20	3.20 - Oakland Avenue - WSD	38.4	43.8
WSD	0.81	0.81 - Woodruff Road - WSD	63.3	64.6
HYD	0.00	0.00 - Collins Street - H-Yard, Joliet	20.2	10.5
HYD	0.00	0.00 - Henderson Avenue - H-Yard, Joliet	43.2	36.8
HYD	0.00	0.00 - Royce Avenue - H-Yard, Joliet	41.7	36.9
ESD	0.80	0.80 - Washington Street East Joliet - ESD	0.7	0.7
ESD	1.80	1.80 - North Rowell Avenue - ESD	27.4	39.3
ESD	2.86	2.86 - South Rowell Avenue - ESD	1.9	6.8
ESD	3.15	3.15 - Country Club Road - ESD	0.6	4.2
ESD	4.22	4.22 - Briggs Street - ESD	1.8	1.8
ESD	5.00	5.00 - Cherry Hill Road - ESD	0.6	0.6
ESD	6.00	6.00 - Gougar Road - ESD	0.5	0.8
ESD	7.00	7.00 - Nelson Road - ESD	0.2	0.6
ESD	8.00	8.00 - South Cedar Street - ESD	0.5	0.9
ESD	9.24	9.24 - Spencer Road - ESD	0.4	0.5
ESD	10.00	10.00 - Schoolhouse Road - ESD	0.5	0.6
ESD	11.49	11.49 - Bobzin Road (116th Street) - ESD	6.4	2.8
ESD	12.00	12.00 - Wolf Road - ESD	3.1	1.8
ESD	14.05	14.05 - Center Street - ESD	0.8	1.6
ESD	14.83	14.83 - Old Sauk Trail - ESD	2.0	2.4
ESD	15.06	15.06 - Pfeiffer Road - ESD	1.5	2.9
ESD	17.06	17.06 - Harlem Avenue - ESD	0.8	1.1
ESD	18.07	18.07 - Ridgeland Ave - ESD	0.5	0.5

ESD	19.07	19.07 - Central Ave - ESD	3.5	2.5
ESD	20.12	20.12 - Cicero Avenue - ESD	4.1	4.4
ESD	21.61	21.61 - Main Street Matteson - ESD	65.8	92.6
ESD	23.12	23.12 - Western Avenue - ESD	33.8	37.3
ESD	24.63	24.63 - Euclid Avenue - ESD	19.1	15.2
ESD	24.91	24.91 - Chicago Road - ESD	12.2	11.4
ESD	25.00	25.00 - Halsted Street - ESD	12.1	11.6
ESD	25.19	25.19 - East End Avenue - ESD	12.7	13.2
ESD	25.92	25.92 - Wentworth Avenue - ESD	26.5	23.2
ESD	26.16	26.16 - State Street - ESD	11.8	10.1
ESD	27.17	27.17 - Cottage Grove Ave - ESD	4.8	7.4
ESD	29.18	29.18 - Torrence Ave - ESD	3.6	6.1
ESD	30.69	30.69 - Lincoln Highway (Rt. 30) - ESD	2.6	1.6
ESD	31.00	31.00 - Lake Street - ESD	3.8	1.9
ESD	31.10	31.10 - Hart Street - ESD	3.3	2.4
ESD	33.66	33.66 - Airport Road - ESD	15.4	7.1
ESD	34.36	34.36 - Kennedy Ave - ESD	25.6	12.5
ESD	36.22	36.22 - Broad Street - ESD	30.5	52.0
ESD	36.52	36.52 - Main Street Griffith - ESD	1.4	4.8
ESD	37.02	37.02 - Elm Street - ESD	0.0	2.8
ESD	41.03	41.03 - West 15th Ave - ESD	9.1	4.6
ESD	41.50	41.50 - West 9TH Avenue - ESD	1.5	1.6
LFL	1.83	1.83 - 95th Street - LFL	5.4	1.1
LFL	2.46	2.46 - 100th Street - LFL	11.5	5.6
LFL	3.67	3.67 - Marina Lot Drive - LFL	33.5	33.1
CTY	0.00	0.00 - Clark Road - City Track	1.1	1.9
CTY	0.00	0.00 - East 5th Ave - City Track	0.8	0.3
CTY	4.20	4.20 - Virginia Street - CT	0.0	4.6
CTY	5.82	5.82 - Taylor Forge Road - City Track	15.1	11.4
IRL	1.65	1.65 - Old Locks Road - IRL	4.3	13.4
IRL	10.17	10.17 - Water Works - IRL	12.3	7.3
IRL	10.61	10.61 - Route 30 - IRL	1.3	0.4
IRL	11.96	11.96 - Renwick Road - IRL	0.0	0.1
IRL	12.50	12.50 - Drauden Road - IRL	0.0	0.1
IRL	14.61	14.61 - Caton Farm Road - IRL	0.4	0.2
IRL	15.16	15.16 - Theodore Street - IRL	0.1	0.1
IRL	17.16	17.16 - Route 52 (Barr Road) - IRL	0.1	0.1
IRL	18.16	18.16 - Beith Road - IRL	0.5	0.2
IRL	19.23	19.23 - Mound Road - IRL	0.0	0.1
IRL	20.46	20.46 - County Line Road - IRL	0.1	0.2
IRL	21.00	21.00 - Holt Street - IRL	0.2	0.4
IRL	21.41	21.41 - Wabena Avenue - IRL	0.2	0.5
IRL	23.63	23.63 - Cadillac Road - IRL	0.1	0.1
IRL	25.42	25.42 - U S Route 6 - IRL	4.3	1.6
IRL	26.94	26.94 - Tabler Road - IRL	67.7	20.8
CAL	43.50	43.50 - Gary Avenue - Calumet	1.2	0.1

Average Blockages per Month











