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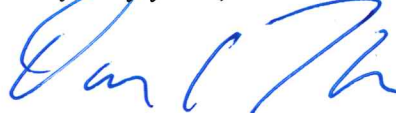
**Re: *Application of the National Railroad Passenger Corporation under 49 U.S.C.
§ 24308(A) – Canadian National Railway Company (Docket No. FD 35743)***

Dear Ms. Brown:

Enclosed for filing under seal in the above-referenced docket please find the Highly Confidential Version of the Opening Brief of Illinois Central Railroad Company and Grand Trunk Western Railroad Company.

Also enclosed for filing on the public record in this proceeding is a copy of the Public Version of this brief, redacted in accordance with the protective order entered in this proceeding on December 16, 2013.

Very truly yours,



David A. Hirsh

Counsel for Illinois Central Railroad Company and
Grand Trunk Western Railroad Company

Enclosures

cc: Kevin M. Sheys, Esquire

PUBLIC VERSION

BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. FD 35743

APPLICATION OF THE NATIONAL RAILROAD PASSENGER CORPORATION UNDER
49 U.S.C. § 24308(a) – CANADIAN NATIONAL RAILWAY COMPANY

**OPENING BRIEF OF ILLINOIS CENTRAL RAILROAD COMPANY
AND GRAND TRUNK WESTERN RAILROAD**

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January 19, 2018

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Exhibit 1	CN markup of proposed Operating Agreement
Exhibit 2	Transcript of Deposition of Paul E. Vilter (June 13, 2017) (excerpts)
Exhibit 3	Transcript of Oral 30(b)(6) Deposition of National Railroad Passenger Corporation by and Through Its Representative Jason J. Maga (July 10, 2017) (excerpts)

SHORT FORMS FOR FREQUENTLY CITED CASES

The following short form case citations are used herein:

<i>Conrail</i>	<i>Nat'l R.R. Passenger Corp. & Consol. Rail Corp.—Application Under Section 402(a) of the Rail Passenger Service Act for an Order Fixing Just Comp.</i> , 10 I.C.C.2d 863 (1995).
<i>Guilford</i>	<i>Application of the Nat'l R.R. Passenger Corp. Under 49 U.S.C. 24308(a) – Springfield Terminal Ry. Co., Boston & Maine Corp., & Portland Term. Co.</i> , 3 S.T.B. 157 (1998).
<i>Metro North</i>	<i>National Rail Passenger Corp. Application Under Section 402(a) of the Rail Passenger Service Act</i> , FD No. 30426, 1985 ICC LEXIS 318 (ICC decided July 5, 1985).
<i>MTRC</i>	<i>Minnesota Transfer Ry. Co. Order to Provide Servs., Tracks & Facilities for the Operations of Trains of the Nat'l R.R. Passenger Corp. & the Establishment of Just & Reasonable Compensation</i> , 354 I.C.C. 552 (1978).
<i>Penn Central</i>	<i>Baker et al., Trustees of Penn Cent. Transp. Co—Compensation for Passenger Serv.</i> , 342 I.C.C. 765 (1973).
<i>T&P</i>	<i>Amtrak & Texas & Pac. Ry. Co., Use of Tracks & Facilities & Establishment of Just Comp.</i> , 348 I.C.C. 645 (1976)
<i>Texas & Pacific</i>	<i>Nat'l R.R. Passenger Corp. & Tex. & Pac. Ry. Co., Use of Tracks & Establishing Just Comp.</i> , 348 I.C.C. 357 (1975).
<i>TRRA</i>	<i>Nat'l R.R. Passenger Corp. & Terminal R.R. Ass'n of St. Louis, et al., Use of Tracks & Facilities & Establishment of Just Comp.</i> , 348 I.C.C. 901 (1977).
<i>UP/SP</i>	<i>Application of the Nat'l R.R. Passenger Corp. Under 49 U.S.C. 24308(a) – Union Pac. R.R. Co. & S. Pac. Transp. Co.</i> , 3 S.T.B. 143 (1998).

ACRONYMS

AESS	Auto Engine Start Stop
ASOTP	All-Stations On Time Performance
BNSF	BNSF Railway Company
CBT	Contract Basic Tolerance
CN	Illinois Central Railroad Company and Grand Trunk Western Railroad, U.S. Operating Subsidiaries of the Canadian National Railway Company
CSX	CSX Transportation, Inc.
DAI	Delay Avoidance Incentives
DNC	Do Not Count
eDR	Electronic Delay Reporting
EOTP	Endpoint On Time Performance
FRA	Federal Railroad Administration
FTI	Freight Train Interference (a subset of HRD) (except when referring to FTI Consulting)
G&A	General and Administrative
GTW	Grand Trunk Western Railroad
HPH	Horsepower per hour
HEP	Head End Power
HPT	Horsepower per ton
HRD	Host Responsible Delay
IC	Illinois Central Railroad Company
ICC	Interstate Commerce Commission
KOTP	Contractual On Time Performance

Metra	Metra Rail (a commuter railroad in Chicago)
NS	Norfolk Southern Railway Company
PRIA	Passenger Rail Investment & Improvement Act of 2008
PRT	Pure Run Time
RCM	Route Capacity Model
RPSA	Rail Passenger Service Act of 1970
RTB	Recovery Time Base
RTC	Rail Traffic Controller
SRS	Service Reliability Strategy
TPC	Train Performance Calculator
UP	Union Pacific Railroad Company

Notes regarding record cites:

Statements filed with the parties' opening evidence are identified by "[Last Name] VS"; those filed with the parties' rebuttal evidence by "[Last Name] RVS"; and those filed with the parties' surrebuttal evidence by "[Last Name] SRVS".

A copy of CN's proposed markup of the Operating Agreement is attached as Exhibit 1.

Transcripts of the Deposition of Paul E. Vilter and of the Oral 30(b)(6) Deposition of Amtrak, by and through Jason J. Maga are cited as "Vilter Tr." and "Maga Tr." respectively. Cited portions of those transcripts are attached hereto as Exhibits 1 and 2.

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BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. FD 35743

APPLICATION OF THE NATIONAL RAILROAD PASSENGER CORPORATION UNDER
49 U.S.C. § 24308(a) – CANADIAN NATIONAL RAILWAY COMPANY

**OPENING BRIEF OF ILLINOIS CENTRAL RAILROAD COMPANY
AND GRAND TRUNK WESTERN RAILROAD**

Illinois Central Railroad Company and Grand Trunk Western Railroad Company (together, “CN”) hereby submit their Opening Brief in this proceeding under 49 U.S.C. § 24308(a) to set the terms and compensation for the use of CN’s tracks and other facilities by National Railroad Passenger Corporation (“Amtrak”).

SUMMARY

In this proceeding, Amtrak seeks to burden CN with the responsibility of achieving Amtrak’s aspirational service goals, under the threat of massive penalties. Amtrak seeks to do so without addressing major obstacles to achieving those goals posed by Amtrak’s schedules and equipment, and by the limitations of current infrastructure. Amtrak has not considered the costs and benefits of its new service goals, and has not considered more cost-effective ways of achieving them.¹ And Amtrak does not propose to pay for the added incremental costs it would impose on CN.

¹ Amtrak’s own witnesses testified that {{ [REDACTED] }} Transcript, Deposition of Paul E. Vilter at 56:24-57:1 (June 13, 2017) (“Vilter Tr.”) (relevant excerpts reprinted as Exhibit 1 hereto); Transcript, Oral 30(b)(6) Deposition of National Railroad Passenger Corporation by and Through Its Representative Jason

Amtrak's proposal is neither cost-effective nor consistent with the public interest. And it is fundamentally at odds with the letter and spirit of the Rail Passenger Service Act, in which Congress instructed Amtrak to work reasonably and cooperatively with its freight railroad hosts, and mandated that it compensate them for no less than their incremental costs of hosting Amtrak.

CN, on the other hand, has called for greater collaboration with Amtrak and sought to accommodate Amtrak's goals, consistent with the public interest, sound economic principles, and the practical realities of railroad operations. CN has proposed schedule adjustments and identified capital investments that would help enable Amtrak to achieve its service goals, as well as adjustments to contractual performance payments and penalties provisions to address Amtrak's stated concerns regarding delay coding and performance incentives relating to interim stations.

The contrasting approaches and proposals of the parties present the Board with two fundamental issues relating to host compensation. The first issue is whether, having been compelled to host Amtrak, CN is entitled to receive its full incremental costs of doing so, including the quantifiable costs it suffers as a result of delays to its freight trains due to hosting Amtrak. Legal, economic, and public policy principles all clearly support that entitlement, Amtrak's contrary arguments notwithstanding. CN cannot and should not be compelled to host Amtrak for less than its full incremental costs, and the public interest will best be served if Amtrak internalizes the costs its demands create.

J. Maga at 106:5-18 (July 10, 2017) ("Maga Tr.") (relevant excerpts reprinted as Exhibit 2 hereto). Information that has been designated as Highly Confidential under the protective order in this proceeding is enclosed with double braces { { } }. Information that has been designated as Confidential under the protective order is enclosed with single braces { }.

The second issue is whether the Board should impose on CN a radical change in the basic contractual framework for performance payments and penalties that would leave CN with a Hobson's choice: either dramatically subordinate and impair freight operations, and incur huge uncompensated capital or operating costs in order to attempt to meet Amtrak's unreasonable service demands, or pay large penalties to Amtrak while being compelled to host Amtrak for less than incremental cost compensation or even for free. While this issue directly affects CN, the Board's decision will set a precedent, and Amtrak has made clear that it seeks a precedent that will have similarly dramatic impacts on all of its freight hosts nationwide.²

CN believes the key to resolving the impasse between the parties is to establish clearly that, as a matter of law and public policy, Amtrak is not entitled to a free ride. When Amtrak internalizes the costs, as well as the benefits, of its service demands, its interests will be better aligned with the public interest. It can then work together with CN, with the Board's guidance, to address the unavoidable trade-offs between performance, schedule lengths, capacity costs, and operating costs.

² See National Railroad Passenger Corporation's Reply to Petitions to Intervene and Comments at 4 (Feb. 28, 2014) (the Board's "decision in this case will set important precedent for future disputes dealing with operating agreements involving Amtrak and other parties").

BACKGROUND

A. Statutory Framework.

1. The Rail Passenger Service Act and the contractual relationship between Amtrak and its host carriers.

Section 402(a) of the Rail Passenger Service Act of 1970 (“RPSA” or “the Act”)³ authorizes Amtrak to contract with a host railroad for the use of that railroad’s facilities “under terms on which the parties agree.” If the parties cannot agree, the Board is authorized to “prescribe reasonable terms and compensation for using the facilities and providing the services.”⁴ In doing so, the Board is to “consider quality of service as a major factor when determining whether, and the extent to which, the amount of compensation shall be greater than the incremental costs of using the facilities and providing the services.”⁵

The first major issue in this case is the meaning and scope of the “incremental cost” standard in Section 402(a), which was added by the Amtrak Improvement Act of 1973.⁶ The accompanying House Commerce Committee report explained that the amendment intended to provide “a floor for the compensation to be paid a railroad for services performed.”⁷ The Conference Report elaborated that the term “incremental costs” is “intended to provide a basis for payment to the railroad of **all costs** which would not be incurred if passenger service were not performed for Amtrak.”⁸ Subsequent agency and judicial decisions have affirmed that (1)

³ Pub. L. No. 91-518, § 402(a), 84 Stat. 1327, 1335 (1970). Section 402(a) was codified “without substantive change” to 49 U.S.C. § 24308(a) by Public Law No. 103-272, §§ 1(a), 6(a), 108 Stat. 745, 745, 911-12, 1378 (1994).

⁴ 49 U.S.C. § 24308(a)(2)(A)(ii).

⁵ 49 U.S.C. § 24308(a)(2)(B).

⁶ Pub. L. No. 93-146, 87 Stat. 548, 552 (1973).

⁷ H.R. Rep. No. 93-415, at 11 (1973).

⁸ H.R. Conf. Rep. 93-587, at 16 (1973) (“1973 Conference Report”) (emphasis added).

Congress intended incremental cost to be the floor to the compensation paid by Amtrak to host railroads, and (2) “incremental cost” includes a broad spectrum of costs.⁹

The second major issue in this case relates to the structure of a rational incentive/penalty system. Two statutory provisions are implicated. The terms of an agreement between Amtrak and a host railroad (1) must “include a penalty for untimely performance,”¹⁰ and (2) may provide for payments above incremental cost based on the “quality of service.”¹¹ These provisions are given effect in the vast majority of Amtrak’s Operating Agreements with host railroads through an integrated provision for incentives (or “performance payments”) and penalties. In addition to the specific structure of the contractual incentive/penalty provision itself, this proceeding involves the question of whether penalties incurred should or must be structured to offset performance payments earned, so that net payments to CN as a host are not reduced below the incremental costs of hosting Amtrak (or even reduced to the point that the host railroad is required to pay Amtrak out of pocket for hosting Amtrak).

⁹ See, e.g., *Application of the Nat’l R.R. Passenger Corp. Under 49 U.S.C. 24308(a) – Union Pac. R.R. Co. & S. Pac. Transp. Co.*, 3 S.T.B. 143, 155 & n.24 (1998) (“UP/SP”) (“as a matter of course, we view all costs that a freight carrier would not incur but for the operations of Amtrak as incremental costs”); *Nat’l Rail Passenger Corp. Application Under Section 402(a) of the Rail Passenger Service Act*, FD No. 30426, 1985 ICC LEXIS 318, at *2, *6 -*7, *31 (ICC decided July 5, 1985) (“Metro North”) (“avoidable costs” are “equivalent” to “incremental costs”; “[t]he proper costing standard to be used in section 402(a) proceedings is avoidable costs. By avoidable costs we mean the costs that would not be present if a minority user’s service were eliminated”; adopting quality of performance proposal designed to protect host from risk that it “could ever receive less than its avoidable costs in connection with the operation of Amtrak trains”) (citing H.R. Rep. No. 93-415, at 6, 11 (1973)); *Nat’l R.R. Passenger Corp. v. ICC*, 610 F.2d 865, 880 (D.C. Cir. 1979) (“There is no legislative intent that would justify forcing a railroad to accommodate Amtrak operations without the recovery of at least its incremental costs.”).

¹⁰ 49 U.S.C. §24308(a)(1). This provision, which was added by the Omnibus Budget Reconciliation Act of 1981, Pub. L. No. 97-35, 95 Stat. 357, 693, codified what was already an existing practice between Amtrak and many of its freight rail hosts.

¹¹ 49 U.S.C. § 24308(a)(2)(B).

{{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] }}¹² And consistent with Congress’s intent that a host railroad’s compensation not be driven below the statutory “floor” of its incremental costs, {{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] }}¹³ But Amtrak now seeks to eliminate that protection.

2. The Board’s role.

Section 402(a) casts the Board in a fall-back role. Congress’s preferred plan, codified at 49 U.S.C. § 24308(a)(1), is that Amtrak and the host – here, CN –reach a voluntary commercial agreement specifying “terms on which the parties agree.” Only if “the parties cannot agree,” and the Board “finds it necessary,” is the Board to “prescribe reasonable terms and compensation [to be paid by Amtrak to the host] for using the [host’s] facilities and providing the [host’s] services.”¹⁴

As elaborated below, the Board’s precedents¹⁵ flesh out the requirements of the RPSA and the criteria for a “reasonable” agreement.

¹² Hirsh VS at 4-5.

¹³ Hirsh VS at 5.

¹⁴ 49 U.S.C. § 24308(a)(2)(A). “Amtrak’s right to use the facilities or have the services provided is conditioned on payment of the compensation.” 49 U.S.C. § 24308(a)(3).

¹⁵ Unless otherwise specific, references to the Board and the Board’s precedents includes decisions of the Interstate Commerce Commission (“ICC”), the Board’s predecessor agency.

B. Factual Background

1. Amtrak's services on CN's lines.

As illustrated on the following table, currently CN hosts six regular Amtrak passenger train services—four on the lines of the Illinois Central Railroad Company (“IC Lines”), and two on the lines of the Grand Trunk Western Railroad (“GTW Lines”), comprising a total of 24 daily train trips.¹⁶

Service & Train Nos.	Service Endpoints	Service Route Miles	CN Segment Endpoints	CN Segment Route Miles	Number of Trains and Frequency of Operation	Number of Railroads Other than CN in Route (including Amtrak)
Blue Water 364-365	Chicago to Port Huron	318.5	Gord to Port Huron	158.7	2 daily	2
City of New Orleans, 58-59	Chicago to New Orleans	933.8	Clark Street to Southport Jct.	927.8	2 daily	1
Illini/Saluki, 390-393	Chicago to Carbondale	308.9	Clark Street to Carbondale	306.7	4 daily	1
Lincoln, 300-307	Chicago to St. Louis	284.1	21st Street to Joliet	34.9	8 daily	3
Texas Eagle, 21-22	Chicago to San Antonio	1305.4	21st Street to Joliet	34.9	2 daily	4
Wolverine, 350-355	Chicago to Pontiac	304.1	Pontiac to West Detroit; Gord to Baron	26.3; 1.2	6 daily	3

As this table shows, CN hosts the majority of the route for only two of the six services – the City of New Orleans and the Illini/Saluki. Of the remaining four services, CN hosts 50%

¹⁶ The four services on the IC Lines are referred to as the “IC Services,” and the two services on the GTW Lines are referred to as the “GTW Services.”

(Blue Water),¹⁷ 13% (Lincoln),¹⁸ 9% (Wolverine),¹⁹ and 3% (Texas Eagle) of the total route miles.²⁰ As described in more detail in CN's evidentiary submissions, the services differ in their infrastructure, their mixes of freight and passenger traffic, their schedules, and their challenges to providing the level of service Amtrak demands.²¹

The four services operating on the IC Lines account for approximately 80% of the total Amtrak route-miles hosted by CN. Two of them, the City of New Orleans and the Illini/Saluki services, operate on CN's most important U.S. corridor, the IC Line between Chicago and New Orleans. This route is primarily single track, with sidings at appropriate locations to allow for meets and passes.

2. Amtrak's number of passenger trains on CN's lines has grown, without any accompanying Amtrak investment.

Since November 1971, the number of trains operated by Amtrak on CN's lines has tripled from 8 to 24. For the 46 years Amtrak has been operating on CN's lines, however, it has neither contributed any capital to infrastructure improvements, nor arranged for public infrastructure funding to accommodate the dramatic increase in Amtrak traffic.

Freight traffic has grown on CN's lines, particularly around Chicago and on IC's Chicago-to-New Orleans line, and the capacity of those lines has become increasingly

¹⁷ Blue Water trains also operate over lines of Norfolk Southern Railway Company ("NS"), Amtrak itself, and Michigan Department of Transportation ("MiDOT") between Chicago and Battle Creek.

¹⁸ Trains in the Lincoln service also operate between Joliet and St. Louis over the lines of Union Pacific Railroad Company ("UP").

¹⁹ Wolverine trains also operate over lines of NS, MiDOT, and Amtrak itself between Chicago and Gord and between Baron and West Detroit.

²⁰ Texas Eagle trains also operate over lines of BNSF Railway ("BNSF") and UP between Joliet and San Antonio.

²¹ See Ladue/Kuxmann VS at 34-49; Ladue/Kuxmann RVS at 21-27.

constrained. CN is incurring increased incremental costs of delays and interference with its freight trains due to the presence of Amtrak passenger trains on CN's lines. Amtrak has recognized it cannot expect increased on-time performance without additional infrastructure investment.²² Nonetheless, Amtrak has not made infrastructure investments in CN's lines.

For its part, CN has continued to invest millions of dollars to maintain and improve its lines as required for its own freight services. In addition, CN has developed at its own expense, and has shared with Amtrak, several detailed proposals for track and signal work to improve Amtrak performance and to reduce delays to CN's freight trains caused by Amtrak's passenger trains. CN developed cost estimates for each element of its proposals, and detailed the benefits anticipated from each. Because the infrastructure improvements proposed by CN would not be necessary but for Amtrak's services, CN requested that Amtrak contribute to the cost of the proposed capital improvements. Amtrak has refused. Instead, Amtrak has demanded that CN accommodate increased passenger service levels without Amtrak making any infrastructure improvements or paying CN for the additional incremental costs.

3. The basic structure of the Amtrak-CN Operating Agreement.

For 42 years, from the time Amtrak began operations until it initiated this action, the terms and compensation governing Amtrak's use of CN's tracks were determined by a series of consecutive operating agreements negotiated by the parties without the need for Board

²² See, e.g., Testimony of Alex Kummant (President and Chief Executive Officer, Amtrak) Before the U.S. Surface Transportation Board at 4 (Apr. 11, 2007), *Rail Capacity & Infrastructure Requirements*, Docket No. EP 671 (Hirsh RVS, Exh. 75) ("all [Amtrak routes], to a greater or lesser degree, encounter delays related to insufficient rail capacity and the need for additional infrastructure investment"); see also H.R. Rep. 110-690, at 43 (2008) (reporting that Amtrak had identified 18 congested points in its national network "where Federal funding [for capital costs of facilities, infrastructure, and equipment] could immediately improve on-time performance and ridership growth," including "Chicago, IL, to Carbondale, IL.").

intervention. Those agreements embody various compromises and quid pro quo arrangements on which the parties have agreed. Thus, for example, CN agreed to permit Amtrak to operate additional trains on its lines, even without contributing to infrastructure improvements, at service levels defined by the Operating Agreement, and on the condition that Amtrak stop penalizing CN under the Operating Agreement for delays to Amtrak trains at interlockings that CN does not and cannot control.

The most recent of these negotiated agreements is the Operating Agreement of May 1, 2011. That Agreement expired by its own terms on August 11, 2013, but has continued in force since that date (with various technical amendments agreed to by the parties) by virtue of the Board's order served in this proceeding on August 9, 2011. Because its terms, as amended, continue to govern Amtrak's use of CN's lines, the Operating Agreement is referred to here as the "existing" or "current" Operating Agreement.

Under the current Operating Agreement, as under its predecessors, there are two components to the compensation CN receives for hosting Amtrak's trains: base compensation, meant to compensate CN for the incremental cost it incurs in providing services and facilities to Amtrak, and Performance Payments and Penalties, based on the quality of the service provided to Amtrak.²³

For base compensation, the Operating Agreement identifies various items the parties have agreed are incremental costs of hosting Amtrak service, and prescribes the amounts, or formulae for calculating the amounts, to be paid for those items.

²³ As discussed below, the compensation CN receives for the GTW Services is handled differently, but the parties agree that in the next Operating Agreement it should be conformed to the same compensation system as will apply to the IC Services.

The Operating Agreement also provides that CN may earn Performance Payments above its incremental costs. These payments are calculated on the basis of an agreed contractual measure of the on-time performance (“KOTP”) of Amtrak’s trains, which is { [REDACTED] }²⁴. A train is counted as “on time” at a checkpoint if it reaches that point by the scheduled arrival time agreed upon by the parties, or { [REDACTED] } [REDACTED] [REDACTED] [REDACTED] [REDACTED] }.

CN earns performance payments if the KOTP for a particular group of Amtrak trains exceeds { [REDACTED] }. The Agreement provides further that CN will incur penalties if KOTP for any group of trains falls below { [REDACTED] } [REDACTED] }. { [REDACTED] } [REDACTED] }.

Penalties assessed against CN are subject to a so-called “lookback” provision, which provides that { [REDACTED] } [REDACTED] }. The lookback provision assures that { [REDACTED] } [REDACTED] }.

²⁴ { [REDACTED] } [REDACTED] }

4. Amtrak's current schedules have not been updated regularly or cooperatively.

KOTP is assessed against Amtrak schedules, which are incorporated into the Operating Agreement.²⁵ Amtrak schedules have 3 primary components: "pure" run time ("PRT"), recovery/miscellaneous time, and dwell time.

- PRT is the theoretically shortest time, given established track speeds, in which a given Amtrak train can traverse its assigned route if there is no other traffic on the rail line and all operating conditions are perfect.²⁶
- Recovery time is intended to allow for reasonably foreseeable contingencies and delays that are an inevitable part of practical railroading, so that the train's schedule can be met with regularity.
- Dwell time is the amount of time a train is scheduled to stop at a station in order to load and unload passengers and bags, change crews, service locomotives, or perform any other required work.

Ensuring each of these components has sufficient time and is properly allocated is the key to reliably achieving high on-time performance.

There are three primary methods for establishing (or verifying) PRT: field or "check" riding; manual desk calculation; or use of a Train Performance Calculator ("TPC").²⁷ "TPC

²⁵ {

[REDACTED]

²⁶ Ladue/Kuxmann VS at 32; *see also* ATK0000359196 [HC] (Hirsh RVS Exh. 54)

{{ [REDACTED] }}

programs are recommended” because they “allow the computer to calculate performance over a line of railroad with amazing accuracy,” “are a great time-saver compared to multiple trips on long distance trains,” and “are especially useful in developing additional running time required for changing power-to-weight ratios.”²⁸ In contrast, a field or check ride involves a laborious manual process in which a team rides the engine over the entire trip, factors out delays, and manually measures PRT to the nearest tenth of a minute.²⁹

The Agreement includes procedures to be followed if one party wishes to change an existing schedule, but those procedures have not proved conducive to the joint development of schedules, particularly given Amtrak’s obstinate refusal to seriously entertain proposals that involve lengthening its schedules. Moreover, those procedures do not require the use of appropriate modeling or test run techniques, which could provide an objective basis for evaluating proposed modifications.

5. The “Short Shunt” safety issue with Amtrak’s single-level Horizon/Amfleet cars affects the run time of the Illini/Saluki service.

One issue of disagreement between the parties has had an effect both on the performance of Amtrak’s trains and the amount of Performance Payments remitted by Amtrak; the “Short Shunt” problem. Amtrak operates some of its corridor services, including its trains in the Illini/Saluki service, with single-level Horizon/Amfleet cars. Those car sets have on occasion

²⁷ See Operations Department, National Railroad Passenger Corporation, *THE ART OF SCHEDULING TRAINS: THE IMPACT OF DELAYS AND THE ART OF SCHEDULE ANALYSIS* 6 (2d ed. Aug. 8, 1996) (Hirsh RVS Exh. 67) (“*The Art of Scheduling*”); see also ATK0000359196, 99 [HC] (Hirsh RVS Exh. 54).

²⁸ *The Art of Scheduling* at 7.

²⁹ *The Art of Scheduling* at 6. Unsurprisingly, the addition of a human element can frequently cause exceptions that must be accounted for. For example, the presence of another observer “may cause the [the engineer] to run 3 mph under the speed limit,” which would “destroy[] the integrity of the schedule check.” *Id.* at 61.

failed to properly close an electric circuit or “shunt” that activates crossing signals (the error is commonly called a “Short Shunt”). As a result, CN ({ [REDACTED] [REDACTED] }) has had to impose operating restrictions (minimum axle requirements and/or speed restrictions) to protect the public.³⁰ In CN’s case, those operating restrictions have the effect of lengthening the Illini/Saluki trains’ run time. Despite this known and now long-term operating restriction, Amtrak in this proceeding opposes any adjustment to the schedules for these trains to reflect the speed restriction required for safe operation. Instead, Amtrak continues to record and treat the lost time due to the speed restriction as unscheduled delays, significantly reducing the published ASOTP of the Illini/Saluki service.

The parties disagree as to responsibility for the Short Shunt problem and the proper treatment under the Operating Agreement of delays due to the speed restrictions that affect these trains. After Amtrak backed out of a joint study it had initially proposed, CN hired at its own expense an independent engineering firm to assess the problem.³¹ CN has also organized joint discussions of the problem including technical people from CN, { [REDACTED] }, FRA, and Amtrak.³² The problem is specific to Amtrak’s preferred Horizon/Amfleet equipment, and Amtrak could remedy it by switching to Superliner cars or by adding shunt enhancers to its locomotives. CN hopes that the parties can settle on a solution to this problem so that the Illini/Saluki service can be operated safely without a speed restriction.

³⁰ Motion of Illinois Central Railroad Company and Grand Trunk Western Railroad Company to Strike or, in the Alternative, for Leave to Supplement the Record, Exh. 1 (Verified Statement of Tom Hilliard) at 2 (“Hilliard VS”) (Nov. 20, 2014).

³¹ Hilliard VS at 2.

³² Hilliard VS at 3.

6. CN's strong performance under the current Amtrak-CN Operating Agreement is reflected in the incentive payments it has earned under terms the parties negotiated.

CN's performance under the existing Operating Agreement has been strong, and CN has consequently earned significant net incentive payments.³³ Between 2012 and 2014, for example, KOTP ranged from { [REDACTED] },³⁴ and CN earned incentive payments on each of the Amtrak services operating on the IC Lines, ranging from a monthly average of { [REDACTED] }.³⁵

C. The present proceeding and the parties' positions.

1. 2013 negotiations and the initiation of this proceeding.

As originally adopted, the current Agreement had a two-year term. As its August 2013 expiration date approached, CN and Amtrak engaged in months of renewal negotiations. CN proposed maintaining the basic structure of the current Agreement, including its KOTP-based system of incentives and penalties. CN favors the KOTP-based system as it assesses CN's actual contribution to Amtrak's performance, and thus provides the most direct measure of the quality of service provided by CN with respect to Amtrak trains.

However, CN also proposed modifications to the Agreement, most significantly a provision for reimbursement of incremental costs incurred by CN as a result of delays to its freight trains caused by the presence of Amtrak trains on CN's lines. For purposes of that proposal, CN estimated its incremental costs based on a temporary experimental effort to attempt

³³ The figures cited in this subsection are based on CN's billing to Amtrak, which does not treat Short Shunt delays as CN-responsible delays.

³⁴ Ladue/Kuxmann VS at 24 (corrected by errata filed Sept. 23, 2015).

³⁵ Ladue/Kuxmann VS at 26.

to meet the then applicable PRIIA standard of 900 HRD minutes/10,000 train-miles without additional capital investment.³⁶ The experiment revealed that { [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]}.³⁷

Amtrak, on the other hand, proposed replacing the existing KOTP system with a new system under which performance payments and penalties would be determined on the basis of HRD.³⁸ Initially, Amtrak proposed { [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]}.³⁹ HRD is a less direct

assessment of host performance than KOTP, as HRD attributes delays to hosts that are beyond their reasonable control and fails to reflect the specific compromises and adjustments to which the parties have agreed during their decades long course of dealing. The following table highlights the differences between the two systems proposed by the parties.

³⁶ Ladue/Kuxmann RVS at 46-47 n.53.

³⁷ See Sacks VS, Exh. G at 2. { [REDACTED]

[REDACTED]
[REDACTED] }

³⁸ See *id.* { [REDACTED]

[REDACTED]
[REDACTED] }

³⁹ See Sacks VS, Exh. G at 2.

	<i>% KOTP</i>	<i>HRD/10k Miles</i>
<i>Measures Performance of Individual Host for Multi-Host Moves?</i>	✓	✓
<i>Measures Host-Responsible Delay & Bases It On Specifics, Not General Codes?</i>	✓	X
<i>Reflects Made Up Lost Time?</i>	✓	X
<i>Standards, Measures & Route/Schedule Developed Together?</i>	✓	X
<i>Prevents Outliers From Over-whelming the General Measure?</i>	✓	X

On July 30, 2013, while negotiations were ongoing, Amtrak filed its Application in this proceeding. In response, the Board initiated the present proceeding in accordance with 49 U.S.C. § 24308(a), ordered that CN continue to provide services and facilities (including rail lines) to Amtrak on an interim basis on the same terms and conditions of the existing Agreement (though CN had not threatened to deny Amtrak services or facilities), and adopted a procedural schedule providing for evidentiary submissions and subsequent briefing.

2. The parties' opening evidentiary submissions.

On September 4, 2015, after extensive discovery, the parties filed their opening evidentiary submissions. CN's Region Director Contracts and Administration Southern Region, Paul Ladue and Manager of Passenger Operations Scott Kuxmann ("Ladue/Kuxmann")⁴⁰ explained that the existing Agreement has generally functioned well, that CN's performance under the Agreement has been strong, and that the failure to meet certain Amtrak metrics is

⁴⁰ Together, Messers. Ladue and Kuxmann were responsible for managing the CN/Amtrak relationship and administering the CN/Amtrak Operating Agreement. Since filing the opening statement, Paul Ladue retired from CN and now works as an outside consultant.

primarily due to issues outside of CN's control.⁴¹ Among the issues highlighted by Ladue/Kuxmann were the fact that schedules for the Illini/Saluki and City of New Orleans services have insufficient PRT and significantly backloaded recovery time (which, for these services, is incompatible with high ASOTP),⁴² the Short Shunt problem, and Amtrak's lack of infrastructure investment.

Ladue/Kuxmann proposed that the essential structure of the Performance Payments and Penalties provision should serve "as the basis for the operating relationship between CN and Amtrak moving forward," with modest modifications "to better align Performance Payments and Penalties with elements of performance that CN can reasonably control," and that the broken process for schedule changes be replaced with a process to regularly review and update, as necessary, Amtrak's schedules.

CN submitted expert evidence from Robert Willig ("Willig"), Professor Emeritus of Economics and Public Affairs at the Woodrow Wilson School at Princeton University and an expert in railroad economics. Willig explained the key economic principles, rooted in efficiency and the public interest, and consistent with statutory criteria, that should be embodied by operating agreements between Amtrak and its hosts:

⁴¹ Ladue/Kuxmann VS at 24-49.

⁴² Ladue/Kuxmann VS at 34-44. Recovery time – *i.e.*, the time included in schedules to allow for delays that are an inevitable part of railroad operations – is referred to as "backloaded" when it is concentrated at or near the end of the schedule, rather than being spread in a manner that creates a reasonable chance of reliable on-time performance at intermediate stations. Insofar as ASOTP is a goal, backloaded recovery time remains a concern pertinent to the CN services at issue in this proceeding, as reflected in both parties' competing schedule adjustment proposals discussed below. It was largely concerns expressed by multiple commenters in the FRA/Amtrak PRIIA standards rulemaking regarding backloaded recovery time that led FRA and Amtrak to delay by two years implementation of their ASOTP standard developed in that rulemaking. *See* PRIIA Metrics & Standards at 18.

- that the host railroad should be compensated for its full incremental or avoidable costs incurred in hosting Amtrak's services;
- that the host may receive additional payments above incremental cost as an incentive to improve the quality of its service to Amtrak, and may incur penalties offsetting those performance payments when service falls below the standards provided for in the agreement;
- that the quality of the host's service should be judged by its avoidance of delays that it can reasonably control; and
- that the levels of incentives and penalties should be symmetrical around an agreed base level of service.

He opined that the current Operating Agreement generally follows those principles, but would be improved by CN's proposals, including adding base compensation for freight delays caused by Amtrak and making changes to the Performance Payments and Penalty provision that more accurately assign delays to CN only where reasonably within its control.

Fiona Murray, CN's Vice President of Corporate Marketing at the time of her statement (now CN's Vice President for Industrial Products), and Anne Morehouse, CN's Superintendent of the Regional Operations Center at the time of her statement (now Superintendent, Chicago Division), described the significant adverse effects Amtrak's use of CN's lines has on CN's customers and operations, including significant costs that are difficult to isolate and quantify.⁴³ CN witnesses John Summerfield, Gregg Girard, and Anne Morehouse ("Summerfield/Girard/Morehouse") described how CN's SRS database could be used to measure delays to CN's freight trains, and Michael Baranowski and Benton Fisher ("Baranowski/Fisher")

⁴³ For example, Murray described how scheduling restrictions, train-length restrictions, and delays that increase cycle times make it harder for CN to serve its shippers, resulting in real and substantial, although not generally readily quantifiable, increases in costs and reductions in revenues. Murray VS at 1-2. Morehouse testified that, among other operational restrictions CN imposes due to Amtrak, CN generally runs shorter-than-optimal northbound intermodal trains on its Yazoo Subdivision so that Amtrak is not forced to take a siding for a meet, resulting in higher (although not readily quantifiably so) costs per freight car. Morehouse VS at 15-16.

of FTI Consulting (“FTI Consulting”) described their quantification and costing to determine the incremental costs CN incurs for freight delays due to Amtrak. Finally, CN witnesses Harald Krueger, Senior Manager, Network Planning for CN, and independent consultants Brian Doyle and Nikola Rank (“Krueger/Doyle/Rank”) used established, standard modeling techniques to calculate the infrastructure investment that would be required to replace the capacity consumed by Amtrak operations at different service levels.

Amtrak’s Deputy Chief, Host Railroads, Paul Vilter, argued in Amtrak’s simultaneously filed Opening Statement that the KOTP system of Performance Payments and Penalties in the current Operating Agreement was “broken,” because it allowed CN to earn net Performance Payments at levels of delay that Amtrak unilaterally deemed unsatisfactory (based on Amtrak’s aspirational goals rather than standards under the Operating Agreement, agreed to by CN, or previously achieved). Amtrak therefore called for the existing system to be scrapped and replaced with one “based on the number of minutes of host responsible delay to Amtrak trains,” that is HRD⁴⁴ – but ostensibly aimed at achievement of ASOTP of 80% (“Amtrak’s Initial Proposal”).⁴⁵ Based on historic performance under existing schedules (which Amtrak indicated required no changes), Amtrak’s witness Benjamin Sacks (“Sacks”) proposed performance standards (in terms of the HRD levels at which no Performance Payments or Penalties would be earned). Delays permitted under Sack’s proposed performance standards were generally well below what had been historically achieved on a sustained basis by CN or by other host railroads

⁴⁴ The HRD metric aims to assess each individual host’s performance, although CN and other hosts have consistently contended that HRD, as unilaterally defined and implemented by Amtrak, is overbroad and holds hosts responsible for matters beyond their reasonable control.

⁴⁵ ASOTP is a measure of Amtrak’s performance over an entire service, and does not isolate performance over individual hosts if there are multiple hosts.

on comparable services, and were in many cases infeasible, if not impossible, for CN to regularly achieve without significantly impairing or halting its freight operations.

Amtrak's Initial Proposal further called for penalties to be assessed at a level high enough to exceed any monetary advantage that, by Amtrak's calculation, CN would allegedly gain when Amtrak trains are delayed. Amtrak also proposed to eliminate the lookback provision. In combination, these proposed changes would make it highly likely, and for some services practically unavoidable, for CN to incur substantial net penalties, which would cause its net compensation to be driven below the statutory floor of its incremental costs of providing service to Amtrak. The proposed changes could even result in CN being compelled to make a substantial net payment to Amtrak while simultaneously being compelled to serve Amtrak.

3. The parties' rebuttal submissions

On September 14, 2017, after significant additional discovery, the parties filed their rebuttal submissions. CN witnesses Ladue/Kuxmann described the key failings of Amtrak's Initial Proposal and why the structure of the existing Operating Agreement is appropriate as contrasted with Amtrak's proposal. They also explained why Amtrak's complaints about the incentive structure of the existing Operating Agreement are unfounded. Ladue/Kuxmann showed that Amtrak's proposal would result in enormous penalties that would greatly exceed the incremental cost compensation Amtrak pays to CN, meaning that CN would be forced to host Amtrak for free and pay Amtrak over \$35 million.

Moreover, even if CN achieved 900 HRD on all services for a full year – a feat no other Class I railroad has come close to achieving – CN would have to pay Amtrak more than \$7 million in penalties, meaning that CN would host Amtrak for free { [REDACTED] } And Ladue/Kuxmann showed that extending Amtrak's proposal to other hosts (including Amtrak itself) on the multi-host routes at issue would result in

the imposition of massive penalties on them as well. Union Pacific would be subject to \$84 million in annual penalties related to its hosting the Texas Eagle service; Michigan DOT would be subject to over \$13 million in penalties for its performance on the Wolverine Service; and Amtrak itself (as a host on a different portion of Wolverine) would be subject to over \$4.5 million in penalties.

CN's witness Harald Krueger described a February 2017 Amtrak proposal to revise schedules for its City of New Orleans and the Illini/Saluki trains. That proposal merely redistributed the existing recovery time; it failed to address other problems with the schedules, such as insufficient run time, that CN { [REDACTED] }⁴⁶ had previously identified; and Amtrak provided no objective analysis or explanation to support its proposed schedules.

Mr. Krueger further explained that to address the full range of issues with the schedules, and to help Amtrak achieve its ASOTP goals, CN's Network Planning team performed a rigorous analysis and developed improved schedules for the Illini/Saluki services, which CN proposed to Amtrak on August 18, 2017. CN offered to develop a similar revision of the City of New Orleans schedules, if Amtrak were receptive to that proposal.⁴⁷ Mr. Krueger showed that CN's proposed modest revisions to the schedules would make it possible, based on the historical

⁴⁶ See, e.g., Ladue/Kuxmann VS at 38-39 n.57 { [REDACTED] }; see also ATK0000032675-78 [HC] (Hirsh VS, Exh. 60 { [REDACTED] })

⁴⁷ Letter from Scott Kuxmann (Manager Passenger Operations, Southern Region, CN) to Jason Maga (Senior Manager, Host Railroads, Amtrak) (Aug. 18, 2017) (Krueger RVS, Exhs. 2-4). CN has submitted evidence that the proposed Illini/Saluki schedules should make it possible to consistently attain 80% ASOTP.

operating experience of those trains, to “have a major positive effect” on the Illini/Saluki trains and to regularly achieve Amtrak’s stated goal of 80% ASOTP.⁴⁸

In its rebuttal, Amtrak presented a new “alternative” proposal (“Amtrak’s Rebuttal Proposal”). Amtrak included a markup of Appendix V of the Agreement (the Performance Payments and Penalties provisions). Amtrak’s witnesses also disputed CN’s freight delay compensation proposal, the quantification and costing of those delays by FTI Consulting, CN’s capacity modeling, and the testimony of CN’s economic expert (based largely on legal, rather than economic arguments, posited by Amtrak’s economist).

4. The parties’ surrebuttal submissions.

On October 30, 2017, the parties filed limited surrebuttal submissions. CN argued that Amtrak’s Rebuttal Proposal was seriously flawed and should be largely rejected by the Board, although it also noted certain points with which it could agree. As agreed by the parties, CN also submitted a complete markup of the Operating Agreement, incorporating CN’s proposed changes, with several modifications to accommodate Amtrak. (A copy of that markup is also attached to this Brief as Exhibit 1.)

Amtrak’s surrebuttal criticized CN’s proposed schedule changes. Amtrak opposed, among other things, the addition of time to the Illini/Saluki schedules to reflect delays due to the Short Shunt problem, on the basis that CN had not proven that Amtrak was the cause of that problem. Amtrak also argued that CN’s proposed schedule changes were unnecessary to achieve 80% ASOTP on the Illini/Saluki and City of New Orleans trains. And in an effort to rehabilitate its Initial Proposal – which, among other things, has no application under different schedules – Amtrak proposed an addition to the Operating Agreement providing that, in the event Amtrak

⁴⁸ Krueger RVS at 13-14.

train schedules were adjusted (as both parties had proposed), Amtrak would consider whether to adjust its proposed HRD thresholds for performance payments and incentives.

5. CN's Motion to Strike or in the Alternative Supplement the Record and Amtrak's Reply.

On November 20, 2017, CN moved to strike certain aspects of the surrebuttal testimony of Amtrak witness Jason Maga. CN explained that Mr. Maga's testimony went beyond the scope of permissible surrebuttal (as defined in the Board's scheduling order providing for the surrebuttal) by opining as to the cause of the Short Shunt problem. CN moved in the alternative that, if the Board did not strike Mr. Maga's testimony on that subject, CN be allowed to supplement the record through the proffered Verified Statement of Thomas Hilliard. Mr. Hilliard described the history of Short Shunt problems affecting Amtrak's Horizon/Amfleet equipment (used on the Illini/Saluki trains) on the lines of CN { [REDACTED] }. He also explained the steps initiated by CN to investigate the causes of the problem, including its funding of an independent study (which was attached to Mr. Hilliard's statement), and arranging joint meetings with FRA, { [REDACTED] }, and Amtrak. Amtrak replied on December 7, 2017. On the condition that a reply statement by Mr. Maga be accepted, Amtrak did not oppose the Board accepting CN's request to add Mr. Hilliard's statement into the record. CN's motion to strike or, in the alternative, to supplement the record, and Amtrak's reply and motion to supplement the record, remain pending before the Board.

ARGUMENT

In Section I, CN addresses Amtrak's professed goal of achieving 80% ASOTP. CN demonstrates that Congress intended Amtrak to achieve high levels of on-time performance by adopting realistic schedules and working cooperatively with its freight hosts – not by placing the entire burden on those hosts without compensation; that neither the structure of the Performance

Payments and Penalties provision of the current Operating Agreement nor CN's performance are responsible for Amtrak's current failure to meet its ASOTP goals; and that, based on historical performance, 80% ASOTP is achievable with modest schedule changes CN has proposed.⁴⁹

In Section II, CN demonstrates that both the law and sound public policy require that Amtrak compensate its hosts fully for their incremental costs; that a "lookback" provision is necessary to ensure that the requisite incremental cost compensation is not reduced by contractual penalties; and that limitations and exceptions to incremental cost compensation proposed by Amtrak witnesses are without merit.

In Section III, CN summarizes and defends its proposals to retain, but modify, the Operating Agreement's Performance Payments and Penalties system; to measure and provide compensation for CN's quantifiable incremental costs of freight delays due to Amtrak;⁵⁰ to revise the schedules for the Illini/Saluki trains and adopt a new provision requiring periodic review of schedules; to adopt a renewable three-year term for the next Operating Agreement; and to incorporate into it a side agreement the parties have already reached.

Finally, in Section IV, CN explains why the Board should reject Amtrak's two alternative proposals, both of which would unreasonably alter the Performance Payments and Penalties

⁴⁹ In Section I of the Appendix to this brief, CN rebuts specific criticisms of CN's proposed schedules that Amtrak made in its surrebuttal evidence.

⁵⁰ In Section II of the Appendix, CN refutes arguments Amtrak made in its rebuttal evidence about the relationship between freight delays due to Amtrak and CN's freight schedules. In Section III of the Appendix, CN refutes criticisms leveled in Amtrak's rebuttal evidence against CN's modeling of the infrastructure that would be necessary to restore the CN line capacity Amtrak consumes. CN is not asking the Board to order Amtrak to pay the cost of that infrastructure, but it is indicative of the full incremental costs Amtrak imposes on CN.

provision of the Operating Agreement, with drastic negative implications for the entire railroad industry.⁵¹

I. AMTRAK’S EFFORT TO IMPOSE ON CN THE ENTIRE BURDEN OF MEETING AMTRAK’S ASOTP GOALS IS CONTRARY TO THE STATUTE AND THE PUBLIC INTEREST, AS ILLUSTRATED BY CN’S MODEST PROPOSED SCHEDULE ADJUSTMENT, WHICH WOULD ACHIEVE 80% ASOTP MUCH MORE COST-EFFECTIVELY.

The central premise of Amtrak’s proposals in this proceeding is that Amtrak should achieve 80% ASOTP on all of its services operated on CN’s lines by requiring CN to “minimize” delays, coerced by threats of huge penalties generated by a radical restructuring of the Performance Payments and Penalties provision of the Operating Agreement.⁵² As explained in Section I.A, that premise is wrong as a matter of law – 80% ASOTP may be a desirable public policy goal *for Amtrak* (although not to the exclusion of other public policy goals with which it may be in tension), but it is not *CN’s* duty to achieve that goal.

Amtrak’s premise also rests on erroneous factual assertions. Amtrak blames the existing Performance Payment and Penalties provision – to which it voluntarily agreed, and which is similar to provisions in its agreements with other hosts – for what it claims is poor CN performance, and it blames that performance for its failure to achieve its stated ASOTP goal.⁵³ As outlined in Subsection I.B, however, the evidence shows that neither the structure of the

⁵¹ In Section IV of the Appendix, CN demonstrates that criticisms Amtrak leveled in its surrebuttal evidence against CN’s modeling of the impacts Amtrak’s Initial Proposal would have on CN’s freight operations only serve to highlight how unreasonable that proposal is.

⁵² See Amtrak Opening Statement at 3-4. In Section I, CN demonstrates that Amtrak’s complaints directed at CN are unfounded, and there is a better, more cooperative path to achieving Amtrak’s stated goals. CN addresses Amtrak’s penalty proposals in detail in Section IV. CN also addresses Amtrak’s effort to avoid paying CN’s incremental costs of hosting Amtrak in Sections II and III.B, demonstrating the impropriety of Amtrak’s demands for coerced subsidies.

⁵³ See, e.g., Amtrak Opening Statement at 3, 7-11.

Operating Agreement nor the quality of CN's performance is at the root of Amtrak's failure to achieve 80% ASOTP.

Amtrak's ASOTP varies widely between services, based on factors unrelated to operating agreement terms or CN's performance. Some services already achieve 80% ASOTP. On some services where CN hosts a relatively small part of the route, it is mathematically impossible for changes in CN performance to have a large effect on ASOTP, which measures Amtrak's whole-route performance. On some other services, the goal of 80% ASOTP is a practical impossibility given existing schedules and infrastructure levels. The only realistic and reasonable way to address Amtrak's ASOTP concerns is to address cooperatively the specific issues confronting Amtrak's individual services, such as schedules, the Amtrak equipment used, and the mixture of infrastructure and freight traffic. Insofar as Amtrak and its State sponsors lack the funding for infrastructure investment, this should mean, at a minimum, exploring an appropriate mix of schedule and operational changes (such as remedying the Short Shunt problem).

Realistic schedules are essential to high OTP. Amtrak's two major services on CN's lines – the Illini/Saluki and the City of New Orleans – currently have schedules that are simply not compatible with 80% ASOTP, both because they are too short and are structured with backloaded recovery time. Amtrak has recognized this problem,⁵⁴ and has proposed schedule changes that would begin to address the backloaded recovery time issue. But as discussed in Subsection I.C, its proposal fails to do so adequately and ignores other schedule issues critical to achieving high ASOTP.

⁵⁴ See, e.g., Ladue/Kuxmann VS, Exh. 11 {

}

CN stands ready to work with Amtrak on a realistic, cooperative approach to meeting Amtrak’s goals. CN will continue to provide Amtrak with high-quality hosting service, and, as detailed in Section III.A, is also prepared to make some adjustments to the Operating Agreement responsive to Amtrak’s stated concerns. Further, as detailed in Section I.C, CN has put forward a schedule proposal for the Illini/Saluki, and stands ready to develop one for the City of New Orleans, that would enable Amtrak to achieve 80% ASOTP in a cost-effective way with relatively modest changes.

A. Amtrak’s General Statutory Goals Do Not Dictate Or Justify Treating 80% ASOTP As A New Minimum Host Service Standard, Much Less One Enforceable Through Penalties.

The Amtrak-CN Operating Agreement has long had minimum service standards that assure that CN does its part to efficiently operate and expedite Amtrak’s trains. With its new Operating Agreement proposals, Amtrak now takes the position that CN should be penalized unless and until 80% ASOTP, or performance “correlated” with 80% ASOTP, is achieved.⁵⁵ Amtrak relies on Section 101(c)(4) of the RPSA, codified at 49 U.S.C. § 24101(c)(4), as support for that position,⁵⁶ but this reliance is misplaced.

Congress addressed the mutual duties of Amtrak and its hosts in Section 402 of the RPSA (codified at 49 U.S.C. § 24308). Section 101 of the RPSA has a different function: it sets a mission and goals *for Amtrak*. In Section 101, Congress instructed Amtrak to pursue twelve service and budgetary goals⁵⁷ and to “cooperat[e]” with “other rail carriers.”⁵⁸ Amtrak’s service goals include, among others, implementing “schedules . . . that can be achieved with a degree of

⁵⁵ Sacks VS ¶¶ 6-7.

⁵⁶ Amtrak Opening Statement at 6.

⁵⁷ See 49 U.S.C. § 24101(c).

⁵⁸ 49 U.S.C. § 24101(a)(4).

reliability,”⁵⁹ and the goal on which Amtrak presently focuses: to “operate Amtrak trains, to the maximum extent feasible, to all station stops within 15 minutes of the time established in public timetables.”⁶⁰

On its face, that goal is addressed to Amtrak, not CN, and the goal is one of multiple competing goals to be achieved subject to feasibility; it is not an absolute command. The goal does not specify an 80% requirement, and, while it suggests that all stations matter, it does not mandate treating a station where a handful of passengers embark and disembark as equally important as a station used by thousands of passengers, as Amtrak’s ASOTP metric does. Perhaps most importantly, it does not specify how on-time performance is to be achieved. Section 101 calls for “cooperation” with – not coercion of – “other rail carriers” such as CN. Section 101 does not specify any particular public schedules as benchmarks against which performance is to be judged. Nothing in Section 101 precludes Amtrak from adjusting its schedules to meet its on-time performance goal. Indeed, Congress encouraged Amtrak to set schedules not to be as short as possible, but to be reliably achievable.

For all of these reasons, the provision on which Amtrak relies, 49 U.S.C. § 24101(c)(4), provides no basis for Amtrak’s proposed modification to the Operating Agreement premised on unilaterally imposing on CN a duty to achieve 80% ASOTP under Amtrak’s current schedules and operating conditions under the threat of massive penalties. But Section 101 does provide flexibility for the parties to “cooperate,” using realistic schedules, to seek the goal of good on-time performance for Amtrak’s passengers in an efficient and practical manner, bearing in mind Amtrak’s budgetary constraints and other public interest goals. CN favors, and has attempted to

⁵⁹ 49 U.S.C. § 24101(c)(6).

⁶⁰ 49 U.S.C. § 24101(c)(4).

pursue, that approach. CN shows below that cooperation to adopt realistic schedules can yield high levels of on-time performance for Amtrak and its customers without violating CN's rights and without harming CN and its freight customers.

B. Amtrak's Complaints About The Performance Payments And Penalties Provisions, And About CN's Performance, Are Unfounded.

The factual premise for Amtrak's proposals – that the Operating Agreement's KOTP-based Performance Payments and Penalties provisions reward bad performance by CN, and are inconsistent with achieving high ASOTP – is wrong.

Judged against any reasonable standard consistent with the public interest in the harmonious and efficient co-existence of passenger and freight service, CN has consistently performed well as Amtrak's host. CN runs a mixed passenger and freight railroad system under challenging, resource-constrained conditions, with efficiency and safety. CN consistently achieves excellent results under the Operating Agreement, which sets the standards of performance to which Amtrak has, until now, agreed.⁶¹ CN is strongly motivated by that Agreement, by its legal obligations, and by efficiency and reputational concerns, to prevent delays to Amtrak trains, consistent with safe, sound, and reasonable railroading practice.⁶²

Further, contrary to Amtrak's claims,⁶³ CN more than amply meets its obligation to provide preference to Amtrak. The evidence submitted by Mr. Vilter with Amtrak's Opening Statement merely shows that Amtrak trains are sometimes delayed in connection with freight

⁶¹ See Ladue/Kuxmann VS at 24-27; Background Section B.3. CN has only recently "failed" to exceed the Operating Agreement's standards on the Illini/Saluki service because of the Short Shunt problem. While ultimate responsibility for that problem is disputed, the speed restrictions that affect ASOTP on that service are necessary for safety; they do not reflect any lack of motivation to prevent delays to Amtrak.

⁶² See Morehouse VS at 18-19; Taylor RVS at 2-5.

⁶³ See, e.g., Vilter VS at 6-7, 8-9.

train meets – an inherently unavoidable and well-understood reality on a single-track railroad. Performance statistics belie his claims that CN only works to prevent delays to Amtrak when close to KOTP thresholds.⁶⁴ And Amtrak’s claim that CN gives its own high-priority trains priority over Amtrak trains is equally unfounded. Whereas CN’s premium intermodal trains (its highest priority freight trains) incur, on average, 126.6 minutes of delay per day due to Amtrak, the operation of those trains only resulted in 35.4 minutes of delay per day for Amtrak trains.⁶⁵

Amtrak instead seeks to judge CN based on an unreasonable demand that CN must “minimize” delays to Amtrak regardless of the cost or adverse effects on freight service quality.⁶⁶ For example, Amtrak cites CN’s temporary experiment in 2013, during which CN took unsustainable measures to reduce HRD minutes to 900 per 10,000 train miles on the IC Line, as an indication of what CN can – and supposedly should – do.⁶⁷ But what that experiment actually shows is that under current schedules and operating conditions on the IC Line, a 900 HRD standard (a less demanding standard than the demands Amtrak makes through its extreme Initial Proposal,⁶⁸ and a level at which 80% ASOTP would still not be achieved) requires a level of subordination of freight service to Amtrak given current infrastructure – beyond just providing preference – that imposes unsustainable burdens, delays, and costs on CN and its shippers.⁶⁹ That it is theoretically possible to “minimize” Amtrak delays by doing disproportionate harm to

⁶⁴ See Vilter VS at 4-6; Ladue/Kuxmann RVS at 12-14.

⁶⁵ Taylor RVS at 10-11.

⁶⁶ Amtrak Opening Statement at 3; Vilter Tr. at 56:17-22 {{ [REDACTED] }}

⁶⁷ Maga SRVS at 24-26.

⁶⁸ See Section IV.B.

⁶⁹ See Section IV & Appendix Section IV.

freight service does not mean that Amtrak has a right to demand it without offering any compensation for that harm or infrastructure investment, or that doing so is in the public interest.

There is no more merit to Amtrak’s criticisms of the current KOTP-based system than there is to its criticisms of CN’s performance. Neither KOTP nor CN’s performance is the reason why Amtrak fails to achieve 80% ASOTP on some services. As the table below reflects, other railroads under operating agreements with similar KOTP-based provisions achieve 80% ASOTP, and there is no systematic evidence that services hosted under “delay avoidance incentive” (“DAI”) systems, such as Amtrak’s Initial Proposal, perform better:⁷⁰

[illegible]

Instead, ASOTP levels reflect issues specific to individual services, including, critically, how realistic their schedules are given the infrastructure, congestion and other operating conditions present. CN's Opening Statement demonstrated that the two Amtrak services for

⁷⁰ In fact, many Amtrak services hosted under DAI systems fail to achieve 80% ASOTP, including {{REDACTED}}.

which CN is the dominant host each face particular schedule and other impediments to achieving high levels of ASOTP:

- while the City of New Orleans service is among Amtrak's top performing long-distance services in terms of EOTP, the back-loading of recovery time in its current schedule leads to much less impressive ASOTP,⁷¹ and the PRT in its schedule is deficient by between 2 and 4%;⁷² and
- the Illini/Saluki service has similar schedule design impediments to achieving high ASOTP. In addition, its schedule does not reflect the added run-time caused by the Short Shunt problem.⁷³ Even Amtrak's conductors regularly report delays to Illini/Saluki trains coded as "OTH," which indicates that there is insufficient run time included in the schedule.⁷⁴ And relative to every other Amtrak corridor service, the Illini/Saluki's schedules represent an outlier in terms of the high performance required to operate the trains on time.⁷⁵

Nor can the provisions of the current Amtrak-CN Operating Agreement be blamed for low ASOTP on the Lincoln and Texas Eagle services (both of which run over a portion of CN's Joliet Subdivision), which are the two remaining services governed by the KOTP provisions Amtrak attacks.⁷⁶ For each of those services, in absolute and per-mile terms, there are fewer delays on CN's short portion of the route than on the much longer segments hosted by other railroads, and the delays that do tend to occur on CN's portion are predominantly caused by

⁷¹Ladue/Kuxmann VS at 34-37.

⁷²Ladue/Kuxmann VS at 36-37; *see also* ATK000032675-78 [HC] (Hirsh RVS, Exh. 60) {{ [REDACTED] }}

⁷³Ladue/Kuxmann VS at 37-44; Krueger RVS at 3-6.

⁷⁴Ladue/Kuxmann VS at 38-39.

⁷⁵Ladue/Kuxmann VS at 39-42.

⁷⁶ The Blue Water and Wolverine services on the GTW are not presently subject to these same KOTP provisions, and, in any event, they have achieved 80% ASOTP in recent months.

interlockings controlled by other railroads – delays outside CN’s reasonable control that would not be prevented by penalizing CN for them.⁷⁷

Amtrak has failed to rebut CN’s evidence regarding the factors affecting ASOTP for the Amtrak services on CN. Amtrak also has failed to demonstrate how or why its proposed changes in the Performance Payments and Penalties provision are either necessary or reasonable to achieve improved ASOTP on any of those services. Instead, Amtrak selectively compares performance on other services. But even this cursory analysis underscores the point that service-specific issues (as opposed to generally applicable issues like the structure of the Operating Agreement) determine a service’s particular ASOTP. Amtrak’s comparisons to very different services being delivered under different schedules and on different lines and routes prove nothing of interest.

C. CN Has Demonstrated That Amtrak’s ASOTP Goal Can Be Achieved Cost-Effectively With Modest Schedule Changes.

Realistic schedules reflecting the operational and on-the-ground challenges faced by a particular service and designed with preferred performance goals in mind (*e.g.*, ASOTP or EOTP) are critical to achieving desired performance levels. Given a schedule with insufficient run time, which takes no account of a Short Shunt problem that inarguably adds to the run time, and which has its recovery time heavily backloaded, the Illini/Saluki has no chance of achieving 80% ASOTP.⁷⁸ Much the same is true of the City of New Orleans.⁷⁹ However, CN has demonstrated that with appropriate reallocation of recovery minutes and modest additions to scheduled run time, the Illini/Saluki can achieve 80% ASOTP without significant changes to its

⁷⁷Ladue/Kuxmann RVS at 27.

⁷⁸ *See, e.g.*, Ladue/Kuxmann VS at 37-44; Krueger RVS at 2-7.

⁷⁹ *See* Ladue/Kuxmann VS at 36-37.

operations and actual run times, and CN stands prepared to perform a similar analysis and propose appropriate modifications to the schedule for the City of New Orleans. Unfortunately, Amtrak has thus far dismissed such schedule changes based on objections that are unsupported and unreasonable, particularly when compared to the onerous demands Amtrak would impose on CN in order to achieve Amtrak's stated ASOTP goals without schedule changes.

1. CN's Illini/Saluki schedule proposal would achieve 80% ASOTP based on historic performance, with only a modest increase in schedule length.

Mr. Krueger explained in his rebuttal verified statement why the existing Illini/Saluki schedules are ill-suited to regularly achieving high ASOTP. He identified three primary obstacles to achieving Amtrak's goal of high ASOTP under the current schedules: (i) they have insufficient PRT; (ii) they have insufficient and backloaded recovery time; and (iii) they lack any adjustment to account for the Short Shunt problem.⁸⁰

As discussed by Mr. Krueger, Amtrak in February 2017 proposed to redistribute existing recovery time to help improve ASOTP,⁸¹ but Amtrak failed to provide any analysis or data to support its proposal. Moreover, as Mr. Krueger explained, Amtrak's limited and simplistic proposal to spread recovery time failed to address any of the other deficiencies with these schedules, particularly in light of Amtrak's ASOTP goals.⁸² For example, Amtrak's proposal would maintain the same scheduled run time that was set before the Short Shunt problem arose, ignoring the undisputed fact that speed restrictions imposed for safety reasons because of that

⁸⁰ Krueger RVS at 5, 6.

⁸¹ *See id.* at 5.

⁸² *Id.* at 6-7 (showing that Amtrak's proposed schedules with reallocated recovery would only increase ASOTP by 12.3%, from 33.0% to 45.3%).

problem add about 12 minutes to the minimum possible run time for Illini/Saluki trains using Amtrak's preferred Horizon/Amfleet equipment.

In response, CN undertook the substantial work of developing new schedules for the Illini/Saluki service that fully address all the outstanding issues.⁸³ CN used standard, time-tested, physics-based methods to create revised schedules designed to meet Amtrak's stated ASOTP goal. The resulting schedules extended run time only modestly, but Mr. Krueger demonstrated that under those revised schedules, based on existing levels of performance, Amtrak could regularly achieve 80% ASOTP.⁸⁴ In particular, he showed that if, as the parties intend, the Short Shunt problem can be resolved, CN's proposed schedules would increase total run time by only 8.1%, but would, assuming historical performance, increase ASOTP by almost 50 percentage points, to an average of 82.9%.⁸⁵

⁸³ *Id.* at 7-13.

⁸⁴ *Id.* at 13-14.

⁸⁵ *Id.* Mr. Krueger's encouraging findings are consistent with a 2007 experiment conducted by Amtrak and CSX involving the Auto Train, which demonstrated the dramatic improvements that can come from so-called "experience-based scheduling":

To test whether experience-based schedules would in fact improve OTP (rather than lengthen actual travel times), Amtrak agreed to increase the scheduled trip time of the Auto Train by 6%, from 16.5 to 17.5 hours, effective April 1, 2007. This increase represented a large (57%) increase in the scheduled recovery time from 105 to 165 minutes or 16% of the new schedule. The impact on measured reliability was immediate, decisive, and continuing, as is evident from examining Amtrak's monthly Host Railroad Performance Reports. . . . In this case, a small increase in scheduled travel time did, in fact, lead to a dramatic improvement in OTP.

Carl D. Martland, *Improving On-Time Performance for Long Distance Passenger Trains Operating Freight Routes*, 47 J. Transp. Res. Forum 63, 74 (2008) ("Martland") (Hirsh RVS Exh. 62).

2. Amtrak's objections to CN's proposed schedule changes are unreasonable.

In a single-page letter dated October 27, 2017, Amtrak rejected CN's schedule proposal. Three days later, in its surrebuttal submission, Amtrak raised several objections to it.⁸⁶ Amtrak did not, however, rebut the central point of Mr. Krueger's analysis – that CN's proposed schedules could lead to 80% ASOTP based on existing levels of performance.

Amtrak asserts that schedule changes are not necessary in order to achieve 80% ASOTP on the City of New Orleans and Illini/Saluki services, but could be achieved through further subordination of CN's freight traffic or through other unspecified changes CN could implement to reduce other types of delay.⁸⁷ In a simplistic sense, Amtrak is right – ASOTP would likely meet or exceed 80% if CN ceased all freight operations on the lines on which Amtrak operates while continuing to invest in the significant maintenance required to keep them in a condition necessary to permit Amtrak's operations at existing speeds.

Yet even during the period of relatively high performance in early 2013, when the parties undertook an experiment to quantify the effects on CN's operations of attempting to meet the

⁸⁶ See Maga SRVS at 8-23.

⁸⁷ Maga SRVS at 24-39. Maga suggests Amtrak can achieve 80% ASOTP on the City of New Orleans and Illini/Saluki services because some services have done so despite significantly backloaded recovery time. Maga SRVS at 28. However, he cites only 3 services (out of a total 39 corridor and long-distance services) for that proposition, each of which are very different from City of New Orleans and the Illini/Saluki services. No long-distance service is included in Amtrak's comparison, making the comparison to the long-distance City of New Orleans obviously inapt. Further, whereas the two CN services must operate on single-track territory with substantial freight volumes, the CP and Metra line that hosts the 86 mile Hiawatha service is double-tracked (and in some areas triple-tracked) for the entire length of the route, and the BNSF line that hosts the IL Zephyr service is double-tracked for almost two thirds of its route (162 of 258 route miles). See Ladue/Kuxmann VS at 41-42. The Heartland Flyer service is just a single train pair, operating at 7 station stops over 206 miles between Fort Worth and Oklahoma City, with backloaded recovery time (67%) that is far less than the Illini/Saluki's (87%).

PRIIA HRD threshold of 900 HRD per 10,000 train miles⁸⁸ (and before the speed restriction imposed to address the Short Shunt problem was in place) the Illini/Saluki service was unable to achieve 80% ASOTP; the highest it achieved was 67% in February 2013 and it averaged only 62% for the entire experimental period.⁸⁹ In order to achieve that performance level CN had to take measures that significantly impaired its freight operations, incurring freight delay costs that CN estimated as { [REDACTED] }.⁹⁰

Amtrak's principal objection entails a dogmatic and unreasonable refusal to entertain any – even a modest – increase in scheduled run time. But Amtrak, which has made substantial investments in analytical tools that predict the effects on its ridership and revenue of changes in schedule time and OTP,⁹¹ did not offer any evidence that its passengers would react negatively to the trade-off underlying CN's proposal between improved ASOTP and increased scheduled run time. There is, as Amtrak knows, substantial evidence that passengers generally value improved OTP reliability more than they value shorter schedules. Moreover, a short schedule that is not achieved in practice offers passengers only misinformation and frustration, not speed.

⁸⁸ See Background § C.1; Ladue/Kuxmann RVS at 47.

⁸⁹ While the City of New Orleans service did achieve 80% ASOTP for a brief period, it was ultimately unsustainable without materially lessening the quality of CN's freight service.

⁹⁰ See Background § C.1. Maga's comparison of this result to the 2016-2017 period analyzed by Krueger is particularly misleading. Maga SRVS at 26. During the 2013 experimental period, CN had not imposed a speed restriction on the Horizon/Amfleet equipment, and its resulting affect on ASOTP did not exist. A more apt comparison is to 2012 (the period immediately prior to the experimental period) and when the Illini/Saluki's ASOTP averaged 55% per month. Thus, the Illini/Saluki's ASOTP increased by only 7 percentage points during the experimental period, despite the major efforts undertaken and costs incurred by CN.

⁹¹ See, e.g., { [REDACTED] }

Three of Amtrak's other stated objections merit brief discussion here.⁹²

First, Amtrak complains that CN offers no "assurance" that 80% ASOTP will be achieved under the new schedules.⁹³ Mr. Maga claims that "Amtrak would continue to have poor ASOTP" under CN's schedules, citing Amtrak's experience with the Sunset Limited service.⁹⁴

It is true that CN is not offering a guarantee that Amtrak will achieve 80% ASOTP. It would be unreasonable to demand such a guarantee. Even Amtrak acknowledges that a significant proportion of the delays that affect OTP are beyond CN's control; operating conditions change; and Amtrak has offered no compensation for CN to take on the additional risk of guaranteeing Amtrak's performance. What CN has provided however, is a rigorous demonstration that its schedule proposal would lead to the achievement of 80% ASOTP if historical performance were maintained.⁹⁵ Moreover, nothing in CN's proposal would impair the incentives (including not just preference obligations and contractual incentives, but also the incentive to advance Amtrak promptly across its lines in the interests of network fluidity) or the

⁹² Additional Amtrak objections to CN's scheduling proposal are refuted in Brief App. Section I.

⁹³ Maga SRVS at 29.

⁹⁴ *See id.* at 29 and n.56. CN cannot speak to Amtrak's experience with a different host on the Sunset Limited. However, Amtrak has had success with adding time to schedules to increase OTP in other instances. For example, Amtrak added one hour to the schedule for the Auto Train, and saw its OTP increase from less than 10% in early 2006 to 82% in the first half of 2008. *See* Martland at 63 (Abstract) (Hirsh RVS Exhibit 62). Moreover, "[a]nalysis of the travel time distributions of the other long-distance Amtrak trains operating on CSXT's I95 Corridor from 2004 to 2008 indicates that a similar schedule increase would also have brought these other trains close to Amtrak's goal of 80% OTP." *Id.*

⁹⁵ *See* Krueger RVS at 7-14.

operational practices that underlie CN's past performance. Accordingly, Mr. Maga's skepticism is unjustified.⁹⁶

Second, Amtrak complains that it would have to use a second engineer if as a result of CN's proposed adjustments its "scheduled" run times exceed 6 hours,⁹⁷ although it makes no attempt to quantify the costs of doing so or to demonstrate that such costs would significantly offset the benefits of greatly increasing ASOTP. It fails to note, however, that it does not generally structure its schedules around the 6-hour labor agreement rule.⁹⁸ Further, this will be a non-issue once the Short Shunt problem is resolved, since CN's proposed post-Short Shunt schedules are under 6 hours for three of the four trains.⁹⁹ In any event, the actual run time for the one train already regularly exceeds six hours.

Notably, Amtrak's real complaint is that if it is required to recognize actual run times in its "scheduled" run times, it can no longer exploit its engineers under its labor agreements that

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⁹⁷ Maga SRVS at 6 n.11.

⁹⁸ Many existing Amtrak schedules, including the schedules for the Blue Water and Wolverine trains, exceed 6 hours, oftentimes by only a matter of minutes. Amtrak's published schedules for the Blue Water and Wolverine Services (available at <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/timetables/Michigan-Services-Schedule-062617.pdf>) include scheduled run times of 400 minutes (Train 350); 361 minutes (Train 351); 381 minutes (Train 352); 382 minutes (Train 353); 377 minutes (Train 354); 376 minutes (Train 355); 398 minutes (Train 364); and 385 minutes (Train 365). In addition, the following corridor services all have schedules longer than 6 hours: Carolinian; Cascades (for the trains operating between Portland and Vancouver); Pennsylvanian; Vermonter; Maple Leaf; New York – Niagara Falls; and San Joaquins.

⁹⁹ See Kruger RVS at 14, Table 4 (showing total scheduled run time for each of the four trains in the Illini/Saluki service). Amtrak misleadingly cites only the total run time of the schedules with added time due to the Short Shunt problem. See Maga SRVS at 4-5.

are based on “scheduled” run times. Far from supporting Amtrak, its argument underscores that for safety reasons (its engineers should be permitted adequate rest) and in fairness to its engineers, Amtrak should be required to modify its schedules to reflect the reality of its operations.

Third, Amtrak objected to CN’s proposal to add run time to the schedules as necessary to address the Short Shunt problem. (CN’s proposal includes alternative schedules – one set of schedules applies to train trips to which the Short-Shunt based speed restrictions do not apply (either because Amtrak uses equipment other than its preferred Horizon/Amfleet equipment which causes the Short Shunt problem, or once the problem is otherwise solved) and a different set (with 12 minutes of additional recovery time) that applies while the Short Shunt speed restrictions remain in place. Amtrak argued that adding run time would be premature before the FRA makes a final determination about the cause of the underlying activation failures¹⁰⁰ – which, as Amtrak knows, may never occur. But regardless of the cause, until the Short Shunt problem is resolved, CN and Amtrak each have an obligation to ensure safety, and that obligation requires the use of speed restrictions on Amtrak’s preferred Horizon/Amfleet equipment.

Denying that reality disserves passengers and serves no legitimate purpose. Amtrak does not and can not dispute that those speed restrictions are in place for safety reasons; it does not and can not dispute that they add about 12 minutes to Illini/Saluki run times; and it does not and can not dispute that its schedules have not been revised to reflect that additional run time. Amtrak simply insists on misleading schedules – contrary to Congressional direction that it use

¹⁰⁰ Maga SRVS at 20-21. Amtrak appears to concede that CN’s proposed schedule adjustment could be proper depending on the FRA’s final determination.

schedules that can be delivered with a degree of reliability, and contrary to its passengers' interest in accurate schedule information.¹⁰¹

In sum, Amtrak's objections to CN's Illini/Saluki schedule proposal are unreasonable and unsupported.¹⁰² They exemplify Amtrak's broader refusal to realistically address unavoidable trade-offs between schedule length, reliability, infrastructure investment, and cost.¹⁰³ CN's scheduling proposal, which it is ready to expand to the City of New Orleans service, offers a realistic, affordable and efficient means of achieving Amtrak's stated goal of 80% ASOTP. Amtrak's unreasonable and unrealistic approach to what can be achieved under current schedules, and its further apparent goal of avoiding its statutory obligation to compensate CN for CN's incremental costs, stand in the way of a cooperative solution in the public interest.

¹⁰¹ The impermanent nature of the Short Shunt problem – which has now lasted for several years – provides no basis for Amtrak's refusal to adjust its schedules to reflect reality. It is not unusual for Amtrak to adjust schedules to account for changes in operating conditions, including temporary or permanent slow orders and increases in freight traffic. *See, e.g.,* ATK0000036114 [HC] (Hirsh VS Exh. 28) (recommending {{ [REDACTED] }}); ATK0000190755-57 [HC]) (Hirsh RVS Exh. 48) ({{ [REDACTED] }}); ATK0000046815, 816-819 [C]) (Hirsh RVS Exh. 55) ({{ [REDACTED] }}); ATK0000360351-53 [C] & ATK0000358947-49 [HC] (Hirsh RVS Exh. 57) ({{ [REDACTED] }})).

¹⁰² CN responds to Amtrak's additional, technical objections to the Illini/Saluki schedule proposal in Section I of the attached Appendix.

¹⁰³ CN explained in its opening evidence that Amtrak has a history of rejecting increases in schedule length, making it futile for CN to propose such schedule changes either formally (under the provisions of the Operating Agreement) or informally (outside of it). Amtrak's unreasonable rejection of CN's proposed revised schedule for the Illini/Saluki services underscores CN's point.

II. CN IS ENTITLED TO COMPENSATION FOR NO LESS THAN ITS FULL DEMONSTRABLE INCREMENTAL COSTS, INCLUDING THOSE RELATED TO FREIGHT DELAYS DUE TO AMTRAK’S SERVICES ON CN’S LINES.

A. Under the RPSA, Hosts Are Entitled to a Minimum Base Level of Compensation that Fully Covers Their Incremental, or Avoidable, Costs of Hosting Amtrak.

1. As enacted in 1970, RPSA did not impose an obligation on hosts to subsidize Amtrak.

The RPSA was never intended to compel host railroads to incur uncompensated losses by hosting Amtrak. As originally enacted in 1970, Section 402 called upon Amtrak and host railroads to agree on “just and reasonable” compensation.¹⁰⁴ A “just and reasonable” commercial agreement does not involve compelling one party—the host—to incur a net loss in serving the other party—Amtrak. Indeed, as elaborated in Section III.A.5, Congress must be taken to have appreciated that such a legally compelled subsidy of a Government corporation by a private railroad would raise serious constitutional concerns under the Takings Clause.

The broader context of the 1970 Act also militates against any interpretation that would require freight railroads to subsidize Amtrak. Before 1970, freight railroads, including CN’s predecessors, had a common carrier obligation to provide passenger service, although they had the right under Section 13a(1) of the Interstate Commerce Act to discontinue passenger service

¹⁰⁴ Rail Passenger Service Act of 1970, Pub. L. No. 91-518, § 402(a), 84 Stat. 1327, 1335 (“RPSA”) (Amtrak “may contract with railroads or with regional transportation agencies for the use of tracks and other facilities and the provision of services on such terms and conditions as the parties may agree. In the event of a failure to agree, the Interstate Commerce Commission shall, if it finds that doing so is necessary to carry out the purposes of this Act, order the provision of services or the use of tracks or facilities of the railroad by [Amtrak], on such terms and for such compensation as the Commission may fix as just and reasonable.”). Congress subsequently shortened “just and reasonable” to “reasonable,” see 49 U.S.C. § 24308(a)(2)(A)(ii), but this was not intended as a substantive change. See Pub. L. No. 103-272, § 6(a), 108 Stat. 745, 1378 (1994) (stating that codifications made by the statute, including that of section 402(a) to 49 U.S.C. § 24308(a), “may not be construed as making a substantive change in the laws replaced”).

unless the ICC determined that continued passenger service “is required by public convenience and necessity and will not unduly burden interstate or foreign commerce.”¹⁰⁵ In making that determination, the ICC weighed heavily any net “avoidable loss” that the railroad would prevent by discontinuing service.¹⁰⁶

Concerned about the railroads’ financial viability, Congress decided to offer them, for a price, relief from the passenger common carrier obligation.¹⁰⁷ Section 401 of the RPSA specified payments – which CN’s predecessors made in full insofar as applicable to the routes and services at issue in this proceeding – that would constitute full and complete consideration for relief from those obligations.¹⁰⁸

¹⁰⁵ Pub. L. 85-625, § 5, 72 Stat. 568, 571-72 (Aug. 12, 1958).

¹⁰⁶ See, e.g., *N.Y., New Haven & Hartford R.R. Trustees Discontinuance & Change of Serv. between Danbury, Ct., & Pittsfield, Ma.*, 320 I.C.C. 544 (1964) (allowing discontinuance in light of “the losses suffered by the New Haven in providing the services that are sought to be discontinued,” *id.* at 552, including “savable expense[s] upon discontinuance of trains,” *id.* at 554-55); see also ICC, *Investigation of Costs of Intercity Rail Passenger Service* iv (July 16, 1969) (Report to Senate Commerce Committee and House Interstate and Foreign Commerce Committee) (“Under the present law, the carriers cannot be required to continue the operation of trains which constitute unreasonable financial burdens.”), *reprinted in* S. Rep. No. 91-765, at 93, 98 (1970).

¹⁰⁷ See H.R. Rep. No. 91-1580, at 3, 9-10 (1970) (acknowledging “heavy and continuing deficits” incurred by railroads in providing passenger service; reporting bill authorizing Amtrak to offer contracts to relieve railroads of intercity rail passenger service obligations in exchange for “cash, rail passenger equipment, or . . . future service” valued at a prescribed multiple of the railroad’s passenger deficit or avoidable loss from providing intercity rail passenger service). Even Amtrak witness Alan Frankel acknowledges that the RPSA was “enacted . . . to relieve railroads of [the] obligation” “to operate intercity passenger rail service . . . mostly at a financial loss.” Frankel RVS at 5.

¹⁰⁸ See RPSA § 401(a)(1) (railroad relieved of “its entire responsibility for the provision of intercity rail passenger service” upon payment of the prescribed statutory fee); see also *Baker et al., Trustees of Penn Cent. Transp. Co—Compensation for Passenger Serv.*, 342 I.C.C. 765, 767 (1973) (“*Penn Central*”) (“According to the legislative history [of RPSA], the payment of the entry fee [under section 401] is the total consideration for being relieved of the responsibility for intercity rail passenger service.”).

If Section 402 of the RPSA were interpreted to require CN to host Amtrak at a loss, Congress's intent would be frustrated, and the bargain made in 1970 dishonored. Despite its predecessors having paid in full for relief, CN would find itself compelled to sustain passenger service-related losses. Nothing in the RPSA's "just and reasonable" (or, as amended, "reasonable") standard compels – or even permits – that outcome. Instead, consistent with its plain language and Congress's expressed intent, the RPSA should be interpreted – and, as elaborated below, has consistently been interpreted – to require Amtrak to pay, at a minimum, its hosts' full incremental, or avoidable, costs of hosting Amtrak.

2. The specification of "incremental cost" in 1973 amendments clarified that hosts are entitled to compensation no less than the costs they would avoid in Amtrak's absence.

In the 1973 amendments to the RPSA, Congress added specificity and clarity to the "just and reasonable" compensation standard by inserting into Section 402(a) a provision specifying "incremental costs" as the floor for compensation:

In fixing just and reasonable compensation for the provision of services ordered by the Commission under the preceding sentence, the Commission shall, in fixing compensation in excess of incremental costs, consider quality of service as a major factor in determining the amount (if any) of such compensation.¹⁰⁹

(At the same time, Congress added the preference obligation now codified at 49 U.S.C.

§ 24308(c), which is discussed in Subsection C.2 below.) Technical amendments

notwithstanding, essentially the same standard appears in the law today:

When prescribing reasonable compensation under subparagraph (A) of this paragraph, the Board shall consider quality of service as a major factor when determining whether, and the extent to which, the amount of compensation shall

¹⁰⁹ Pub. L. No. 93-146, § 10, 87 Stat. 548, 552 (1973).

be greater than the incremental costs of using the facilities and providing the services.¹¹⁰

In the 44 years since the 1973 Act, the “incremental costs” provision has consistently been understood – by Congress, the Board, the ICC, and Amtrak itself – as affirming that Amtrak is obliged to pay hosts, at a minimum, their full “incremental” or “avoidable” costs, *i.e.*, all the costs they incur due to hosting Amtrak that they would not incur in Amtrak’s absence.

That understanding is strongly supported by the Conference and Committee reports on the 1973 legislation. The Conference report explained:

The term “incremental costs,” as used by the conferees, is intended to provide a basic level of compensation to be paid a railroad for services provided. It is assumed that this basic level could be supplemented on the basis of quality of service.

The committee of conference recognized the difficulties inherent in costing terminology. The term “incremental costs” is not used by the conferees as a term of art itself. ***It is intended to provide a basis for payment to the railroad of all costs which would not be incurred if passenger service were not performed for Amtrak.*** It is anticipated that the railroad and Amtrak would agree on a system of bonuses or penalties that would vary the level of payments according to the quality of service provided. In the absence of agreement, the Commission would fix this amount under section 402(a) of existing law, taking into account the quality of service regulations issued under section 801, as amended. The term “incremental” is to be considered then as meaning those costs which would not be incurred if a particular service were not rendered or a given amount of traffic were not handled. This includes total solely related (or direct) costs of a particular service (both variable and fixed portions of solely related costs), but does not include any portion of common costs. This is also sometimes referred to as “avoidable costs.”¹¹¹

Similarly, the House Committee report explained:

The term “incremental costs” is not used by the committee as a term of art itself, rather it is intended to provide, as the floor, a basis for payment to the railroad of all costs which would not be incurred if no passenger service were performed for Amtrak. The term “incremental” is to be considered then as meaning avoidable

¹¹⁰ 49 U.S.C. § 24308(a)(2)(B).

¹¹¹ H1973 Conference Report at 16 (emphasis added).

costs referred to in the preceding sentence plus a percentage negotiated by the parties or fixed by the Interstate Commerce Commission to cover other known but unassignable costs.¹¹²

This legislative history makes clear two fundamental points. *First*, consistent with its intent in 1970 to protect freight railroads from burdensome passenger subsidy obligations, Congress intended “incremental cost” to be “a floor” – an absolute minimum – for the compensation Amtrak must pay hosts. The statutory text focuses on the Board’s discretion to order compensation in excess of incremental costs. Congress took as a given that compensation below incremental costs – a compelled subsidy from freight railroads to Amtrak – would not be appropriate. Congress also intended to limit the discretion it delegated to the Board, and to its predecessor, the ICC, to determining compensation levels at or above – not below – incremental cost.¹¹³

Second, Congress intended “incremental costs” to refer to the common-sense meaning of “avoidable costs”: “all costs which would not be incurred if no passenger service were performed for Amtrak.” The congressional reports make clear that Congress eschewed any intent to use any narrowing, “term of art” definition of “incremental costs,” in favor of a simple factual inquiry – whether the cost would disappear (is it “savable” or “avoidable”) if Amtrak’s passenger trains did not operate on the freight line.

¹¹² H.R. Rep. No. 93-415, at 11 (1973).

¹¹³ As discussed in Section II.B, the provision Congress added in 1981 requiring that Amtrak-host operating agreements provide for “a penalty for untimely performance,” 49 U.S.C. § 24308(a)(1), affords no basis for negating hosts’ right to full incremental cost compensation.

3. Congress re-affirmed the principle that avoidable costs must be fully compensated in its provision governing the downgrading or disposal of facilities used to serve Amtrak.

Congress's intent that full "incremental," or "avoidable" costs, broadly understood, should provide a "floor" for host compensation was re-affirmed in 1979, when it added a new provision (Section 406) to RPSA. Section 406 established procedures and standards applicable to a host's proposed disposal or downgrading of facilities used by Amtrak. Section 406(d), Approval of Application and Payment of Avoidable Costs, specifies that insofar as Amtrak objects to the proposal and wishes to retain or maintain any facility, it must pay "the avoidable costs of retaining or maintaining" the facility in question.¹¹⁴ By thus affirming that the incremental, or avoidable, cost approach applies to "facilities" – defined to encompass capacity-building infrastructure that would typically be the subject of long-term investment decisions¹¹⁵ – Congress re-affirmed its rejection of narrow "term of art" limitations on what "incremental cost" encompasses. Congress clearly intended the "avoidable"/"incremental" cost approach to apply to long-term costs and costs of retaining capacity no less than to short-term operational costs.

4. ICC and STB decisions affirm that the "incremental cost" floor on host compensation includes all avoidable costs.

ICC decisions consistently followed Congress's directive and construed "incremental cost" to mean all costs the host would not incur if it were not compelled to host Amtrak – namely, all avoidable costs.¹¹⁶ Consistent with that broad definition and Congress's intent, the

¹¹⁴ 49 U.S.C. § 24309(d)(2).

¹¹⁵ "Facility" is defined to mean "a rail line, right of way, fixed equipment, facility, or real property related to a rail line, right of way, fixed equipment, or facility, including a signal system, passenger station and repair tracks, a station building, a platform, and a related facility, including a water, fuel, steam, electric, and air line." 49 U.S.C. § 24309(a)(1).

¹¹⁶ See, e.g., *Amtrak & Wash. Term. Co., et al., Use of Tracks and Facilities and Establishing Just Comp.*, 348 I.C.C. 86, 103 n.15 (1975) (incremental costs are "all costs which

ICC explained that the incremental cost standard functions to “put[] the dominant user in a position no better or worse than if the minority user had not been present.”¹¹⁷ The Board has similarly recognized that “incremental cost” functions as a floor on compensation and is broadly defined.¹¹⁸

5. The RPSA should be interpreted as requiring full compensation for all avoidable costs to avoid constitutional problems under the Takings Clause.

If there were any ambiguity about Congress’s intent to set incremental costs as the floor for host compensation, while defining it broadly to encompass all costs the host would avoid if it ceased to host Amtrak – and there is not – it should be resolved to avoid serious constitutional concerns.¹¹⁹

The RPSA’s compulsion of private railroads to host Amtrak is a commandeering of private property and resources that the Constitution does not permit without just compensation.

would not be incurred if passenger service were not performed for Amtrak,” citing H.R. Rep. No. 93-587); *Nat’l R.R. Passenger Corp. & Tex. & Pac. Ry. Co., Use of Tracks & Facilities Establishing Just Comp.*, 348 I.C.C. 357, 373 n.8 (1975) (“*Texas & Pacific*”) (same); *Nat’l R.R. Passenger Corp. & Terminal R.R. Ass’n of St. Louis, et al., Use of Tracks & Facilities & Establishment of Just Comp.*, 348 I.C.C. 901, 915 (1977) (“*TRRA*”) (same); *Nat’l R.R. Passenger Corp. & Consol. Rail Corp.—Application Under Section 402(a) of the Rail Passenger Service Act for an Order Fixing Just Comp.*, 10 I.C.C.2d 863, 863-64 n.3 (1995) (“*Conrail*”) (equating “incremental cost” with “track maintenance costs that Conrail would not incur if Amtrak did not operate over its lines”).

¹¹⁷ *Metro North*, 1985 ICC LEXIS 318, at *7. The ICC in *Metro North* used the term “avoidable costs” but expressly clarified that it viewed “avoidable costs” and “incremental costs” as “equivalent.” *Id.*

¹¹⁸ *See, e.g., UP/SP*, 3 S.T.B. at 145 (“49 U.S.C. § 24308(a) permits freight railroads to recover from Amtrak their ‘incremental costs’ – those costs that the carrier incurs as a result of Amtrak’s use of its facilities – and that term is not as limiting as Amtrak may believe”); *see also id.* at 156 & n. 24 (“as a matter of course, we view all costs that a freight carrier would not incur but for the operations of Amtrak as incremental costs”).

¹¹⁹ *See, e.g., Edward J. DeBartolo Corp. v. Fla. Gulf Coast Bldg. & Constr. Trades Council*, 485 U.S. 568, 575 (1988) (“[W]here an otherwise acceptable construction of a statute would raise serious constitutional problems, the Court will construe the statute to avoid such problems unless such construction is plainly contrary to the intent of Congress.”).

Section 402 of the RPSA authorizes the Board, and Amtrak in this proceeding has asked the Board, to issue an order overriding the most fundamental element of CN's bundle of private property rights – its right to exclude a stranger – Amtrak, a Government corporation – from its physical property.¹²⁰ In effect, Amtrak requests a Board order that would give Amtrak a usage right that is akin to an easement over CN's property. That right will significantly impair CN's ability to use its own property for freight transportation, since as a practical and safety matter, CN will be compelled to significantly restrict the movements of its freight trains to avoid Amtrak trains, thus reducing CN's freight capacity. Moreover, that capacity impairment is exacerbated by the statutory right to preference, which means that not only is CN deprived of its right to exclude Amtrak – CN is required to give Amtrak priority in the use of CN's private property.

There could scarcely be a clearer case of a *per se* taking of private property. Supreme Court precedent distinguishes between regulatory takings – regulation of property owners' use of their property for environmental and other reasons – and takings in the form of “permanent physical occupation” – regulations and other Government actions that effect or authorize a physical occupation or use of property by a stranger.¹²¹ This case, like other *de facto* easement cases, clearly falls in the latter category.¹²²

¹²⁰ “The chief and one of the most valuable characteristics of the bundle of rights commonly called ‘property’ is ‘the right to sole and exclusive possession—the right to *exclude* strangers, or for that matter friends, but especially the Government.’” *Mitchell Arms, Inc. v. United States*, 7 F.3d 212, 215 (Fed. Cir. 1993) (quoting *Hendler v. United States*, 952 F.2d 1364, 1374 (Fed. Cir. 1991)).

¹²¹ See, e.g., *Yee v. City of Escondido, Cal.*, 503 U.S. 519, 522–23 (1992).

¹²² See, e.g., *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979). (That the RPSA authorizes Amtrak to physically occupy and use CN's property is self-evident, and “[i]n this context, ‘permanent’ does not mean forever, or anything like it,” *Hendler*, 952 F.2d at 1376; it merely means not “transient and relatively inconsequential,” *id.* at 1377.)

“[A] permanent physical occupation is a government action of such a unique character that it is a taking without regard to other factors that a court might ordinarily examine.”¹²³ In other words, in a permanent physical occupation case, there is a *per se* taking – a taking “without regard to whether the action achieves an important public benefit or has only minimal economic impact on the owner.”¹²⁴ That is because “[a] permanent physical invasion, however minimal the economic cost it entails, eviscerates the owner’s right to exclude others from entering and using her property—perhaps the most fundamental of all property interests.”¹²⁵ As such, it requires just compensation.¹²⁶

Just compensation is compensation that puts the property owner “in as good a position pecuniarily as if his property had not been taken.”¹²⁷ In this case, CN’s property will be taken by compelling it to host Amtrak, so just compensation requires that CN be put “in as good a position pecuniarily as if” it were not compelled to host Amtrak. In other words, the Constitution requires that CN be fully compensated for all the costs it would not incur in Amtrak’s absence.¹²⁸

¹²³ *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 432 (1982).

¹²⁴ *Id.* at 434–35.

¹²⁵ *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005).

¹²⁶ Notwithstanding “the evolving enactment and implementation of federal railroad law” that has resulted in “the Federal Government’s plenary authority over rail operations,” the property of railroads such as CN are entitled to the full protection of the Takings Clause. *See, e.g., Preseault v. United States*, 100 F.3d 1525, 1537-40 (Fed. Cir. 1996).

¹²⁷ *United States v. 564.54 Acres of Land, More or Less, Situated in Monroe & Pike Cntys., Pa.*, 441 U.S. 506, 510 (1979) (quoting *Olson v. United States*, 292 U.S. 246, 255 (1934)). (That commonly, but not invariably, means that compensation must reflect the fair market value of the property. However, the overriding principle is one of full indemnity, albeit excluding subjective value. *See id.* at 510-13.)

¹²⁸ The Second Circuit has ruled the incremental cost standard constitutional precisely because it leaves the host in “the same position monetarily as it would have occupied if the property had not been taken,” which the court found to be “precisely the guiding principle of what is just compensation.” *Metro. Transp. Auth. v. ICC*, 792 F.2d 287, 297 (2d Cir. 1986).

As explained above, that is plainly what Congress intended, and the agencies and the parties have understood, by the statutory reference to “incremental costs.” But if there were any ambiguity, and there is not, the statutory interpretation canon of constitutional avoidance would resolve the ambiguity in CN’s favor.

6. Full incremental cost compensation is essential to sound economic policy in the public interest.

The compelling legal case for requiring Amtrak to pay full incremental cost compensation to its hosts is buttressed by an equally compelling case at the level of economic and public policy principles. As Professor Willig has explained, full incremental cost compensation serves vital public policy functions.

Full incremental cost compensation causes Amtrak to internalize the costs generated by its service demands, and thus to weigh the social costs of its decisions against their social benefits, leading Amtrak (including for purposes of this discussion, States and others who fund Amtrak and help decide what services it will provide) to act, as Congress chartered it to act, in the public interest. Conversely, to the extent that Amtrak is not held accountable for the costs it generates, Amtrak will tend to make decisions ignoring those costs, and thus to make demands that generate excessive social costs, contrary to the public interest. A failure to internalize costs will tend to lead Amtrak to run too many trains, to insist on schedules that make unreasonable demands of hosts, to demand performance levels above the point at which the marginal cost of improving performance equals the marginal benefit of doing so, and to refuse to participate in efficient infrastructure investments (because it does not participate in funding the operational costs those investments would save).¹²⁹

¹²⁹ See Willig VS at 4; Willig RVS at 2.

That is exactly how Amtrak has behaved in this case against the backdrop of an Operating Agreement that does not presently, and would not under Amtrak’s proposal, require Amtrak to pay for the incremental costs of freight delays and capacity losses it causes. Amtrak’s principal witnesses, Paul Vilter and Jason Maga, each testified that Amtrak gave no consideration whatsoever to the freight delay and capacity costs it imposes on CN – and indirectly, on shippers – in formulating its limited proposal.¹³⁰ And Amtrak’s excessive, unreasonable demands in this case, discussed further in Section IV, starkly reflect its failure to internalize the costs it would impose on CN, its customers, and the rail freight network generally.¹³¹

B. The “Lookback” Provision Should Be Retained to Protect CN’s Right to Incremental Cost Recovery.

As Section II.A demonstrated, the RPSA, precedent, and constitutional and economic principles dictate that, as Amtrak’s compelled host, CN has a right to full compensation for its incremental costs of hosting Amtrak. That right must be protected in substance, as well as in form. It would be contrary to the RPSA to foist on a host an operating agreement that purports to cover the host’s incremental costs through base compensation, but then takes away that compensation under the rubric of “penalties” such that the host does not, on net, receive full incremental cost compensation.

The current Amtrak-CN Operating Agreement, like its predecessors, prevents that impermissible result by means of a “lookback” provision. Under that provision, { [REDACTED]

[REDACTED]

¹³⁰ Vilter Tr. at 56:24-57:1; Maga Tr. at 106:5-18.

¹³¹ Full incremental cost compensation is also necessary to protect freight carrier hosts from being compelled to subsidize Amtrak’s passenger rail business, which can harm the efficiency and economic viability of the freight industry. See Willig VS at 4; Willig RVS at 2.

[REDACTED]

[REDACTED]

[REDACTED].¹³² Lookback provisions do not in any way negate the fact that under the Operating Agreement, penalties are real and can be substantial. But they ensure that they can only offset performance payments, so that over time, the sum of performance payments plus penalties will either be positive for CN or zero, and, thus, CN's net compensation will not fall below the base compensation for incremental costs specified by the Operating Agreement.

Amtrak proposes to eliminate lookback.¹³³ In support of its position, Amtrak cites 49 U.S.C. § 24308(a)(1), which mandates that operating agreements include “a penalty provision for untimely performance.”¹³⁴ However, that provision provides no basis for overriding CN's right to full incremental cost compensation.

Congress added the requirement that there be a provision for penalties in the 1981 Omnibus Budget Reconciliation Act. But in doing so, it merely codified what was already standard industry practice: Amtrak-host operating agreements typically included an integrated system of negative (penalty) as well as positive (incentive) performance payments in the 1970s, as they do today.¹³⁵ Congress did not change its instructions to the Board requiring that in imposing terms it must provide “reasonable terms and compensation,” 49 U.S.C.

§ 24308(a)(2)(A)(ii), and setting “incremental cost” as a floor for compensation, 49 U.S.C. §

¹³² Operating Agreement § 5.2.A & App. V, § D.

¹³³ See Amtrak Opening Statement at 10, 15-16; Vilter VS at 2, 10 & n.19, 14.

¹³⁴ See Amtrak Opening Statement at 17.

¹³⁵ See, e.g., *Nat'l R.R. Passenger Corp. & Union Pac. R.R. Co. Use of Tracks & Facilities & Establishment of Just Comp.*, 348 I.C.C. 926-27 (1977) (referring to 1974 amendment of Basic Agreement to include incentive/penalty provisions); *Amtrak & Texas & Pac. Ry. Co., Use of Tracks & Facilities & Establishment of Just Comp.*, 348 I.C.C. 645, 672-73 (1976) (“T&P”) (prescribing incentives/penalties system).

24308(a)(2)(B). Nothing in the text or legislative history of the RPSA, as amended, indicates that Congress intended to dismantle the “incremental cost” floor it had set by the indirect means of requiring a penalty provision. And Congress did not and could not negate the compelling constitutional and public policy rationales for full incremental cost compensation discussed above.

Moreover, lookback provisions have been standard terms in Amtrak-host operating agreements nationwide from the beginning – both before and after the 1981 amendment. Amtrak itself, noting that “it ha[d] included similar incentive arrangements in operating agreements with freight railroads over whose lines its trains operate,” proposed an incentive system incorporating a lookback provision in the *Metro-North* compensation case, “so that over time there [would be] no risk that a railroad could ever receive less than its avoidable costs in connection with the operation of Amtrak trains.”¹³⁶

Amtrak’s efforts to justify its new-found opposition to lookback fall short. Despite the long-standing and pervasive use of lookback provisions, Amtrak has provided no evidence that such provisions have resulted in any sustained or widespread problem that has prevented the imposition of penalties on its hosts. And it certainly has not and cannot do so with respect to CN. As discussed above, the lookback provision has rarely been invoked to limit penalties under the Operating Agreement.¹³⁷ Nor should it be necessary to invoke the protections of a lookback provision under a properly functioning Operating Agreement, because, as explained by Professor Willig, operating agreements can and should be structured with the expectation that there will generally be performance incentives available so that penalties can be assessed against them,

¹³⁶ *Metro North*, 1985 ICC LEXIS 318, at *31.

¹³⁷ See Background Section B.6.

without the need to reduce the host's base incremental cost compensation.¹³⁸ Moreover, insofar as there is any risk of that occurring under a revised Operating Agreement, CN has proposed a better solution to that theoretical concern: the proposed re-opener provision discussed in Section III.A.2.

Amtrak's Paul Vilter nonetheless states that the removal of the lookback provision is the "most important[]" change Amtrak seeks.¹³⁹ The reason for that becomes evident when one examines Amtrak's other proposed changes to the Performance Payments and Penalties provisions of the Operating Agreement. Amtrak would radically alter the contract so that even with excellent performance, CN would regularly incur large penalties and have very little opportunity to earn substantial performance payments.¹⁴⁰ Amtrak's proposals are structured to have precisely the effect the lookback is intended to prevent. Eliminating the lookback would subject CN to a significant (and uncompensated) risk that its compensation would fall below its (contractually- and conservatively- determined) incremental costs. Indeed, as demonstrated in Section IV, under Amtrak's proposed penalty schemes, CN could well find itself compelled to make a substantial net payment to Amtrak for hosting it.

That outcome is neither consistent with CN's right to full incremental cost compensation, *see* 49 U.S.C. § 24308(a)(2)(B), nor "reasonable," 49 U.S.C. § 24308(a)(2)(A)(ii). And a commercial negotiation between parties – Congress's preferred means of forging an operating agreement, *see* 49 U.S.C. § 24308(a)(1) – would not plausibly result in the elimination of lookback. Accordingly, Amtrak's proposal to eliminate lookback should be rejected as

¹³⁸ Willig VS at 4.

¹³⁹ *See* Vilter VS at 2.

¹⁴⁰ *See generally* Section IV.

unreasonable and inconsistent with the RPSA and the constitutional and public policy principles on which it is grounded.

C. Amtrak's Witnesses' Arguments for Limiting Incremental Cost Compensation Are Meritless.

Amtrak did not address incremental cost compensation in its opening submission (despite being on notice, from renewal negotiations and from CN's Statement of Disputed Issues, that CN proposed to add to the Operating Agreement compensation for its incremental freight delay and capacity costs). Amtrak also has not disputed the general proposition that CN is entitled to be compensated for its incremental costs. However, Amtrak's rebuttal submission proposed various bases for limiting CN's right to incremental cost compensation in principle (discussed in this Subsection) and for denying CN compensation for freight delay costs in practice (discussed in Section III). Amtrak's arguments conflict with the clear statutory mandate that Amtrak pay its host railroads their full incremental costs, and Amtrak's arguments should be rejected.

1. Incremental cost compensation is not limited to "short-run avoidable costs."

Amtrak's witness Frankel, an economist, makes the legal claim that incremental cost compensation under Section 402 is limited to "short-run avoidable costs,"¹⁴¹ which he equates with the specific elements of "avoidable cost in the short run" enumerated in the ICC's decision in *Penn Central*, namely, "that amount of maintenance of way, maintenance of equipment, and transportation expenses which could be saved if a particular service were eliminated."¹⁴² In doing so, he argues that hosts should be denied recovery of (i) their "long-run" avoidable costs, (although he provides no clear and principled delineation between "long" and "short" run), (ii)

¹⁴¹ Frankel RVS at 4.

¹⁴² Frankel RVS at 6; *see id.* at 13 (same).

their “opportunity costs,” and (iii) their “delay and interference” costs.¹⁴³ On that basis, Frankel contends that CN is not entitled to compensation for lost freight revenues, nor to “a requirement that Amtrak contribute towards CN’s capacity”¹⁴⁴

These arguments are red herrings and do not bear directly on the pecuniary relief CN seeks in this proceeding. Notwithstanding compelling evidence that Amtrak’s passenger trains have imposed significant adverse impacts on CN’s freight revenues by interfering with and delaying CN’s freight traffic,¹⁴⁵ CN is not currently seeking compensation for lost freight revenues because of the difficulty in quantifying them. Nor does CN assert “a requirement that Amtrak contribute towards CN’s capacity.”¹⁴⁶ Instead, CN has identified such a contribution as one of various alternative means available to Amtrak to fulfill its duty to mitigate and/or provide compensation for the capacity and freight delay costs it imposes on CN.¹⁴⁷

However, in another Amtrak Rebuttal Verified Statement, assume that (as Frankel argues) only “short-run avoidable costs” are compensable,¹⁴⁸ and they proceed to argue that on that basis, there can be no incremental cost compensation for any “[c]osts associated with changes to” “physical plant, equipment and work force,”¹⁴⁹ including the costs of extra crews, locomotives and rolling stock needed because of freight delays caused by Amtrak – for which

¹⁴³ Frankel RVS at 12-13 (re “long run” costs), 13-14 (opportunity costs), and 14-15 (delay and interference costs).

¹⁴⁴ Frankel RVS at 12-15.

¹⁴⁵ See *generally* Morehouse VS; Murray VS.

¹⁴⁶ Frankel RVS at 15.

¹⁴⁷ See Ladue/Kuxmann VS at 52-53; Willig VS at 3, 5; Willig RVS at 3.

¹⁴⁸ See Crowley/Mulholland RVS at 1-2, 12. Amtrak witnesses Thomas Crowley and Robert Mulholland, of L. E. Peabody & Associates, submitted a verified statement criticizing CN’s quantification of delay costs.

¹⁴⁹ Crowley/Mulholland RVS at 17.

CN is claiming past and future compensation (*see* Section III.B).¹⁵⁰ The “short-run avoidable cost” limitation on the recovery of incremental costs asserted by Frankel and assumed by Crowley and Mulholland finds no support in the RPSA, in *Penn Central* (or other precedents), or in economic principle.

First, as noted above, Congress made clear its intent to ensure that a host be compensated for “*all*” costs which would not be incurred if passenger service were not performed for Amtrak,”¹⁵¹ not some narrower technical term of art category of costs. Congress could have specified that only “short-run” costs or only out-of-pocket “expenses”¹⁵² should be recovered, but it did not do so.

Second, neither *Penn Central* nor Congress’s reaction to it supports Amtrak’s position. Frankel claims that in *Penn Central*, Amtrak “argued that ‘just and reasonable compensation’ required only the payment of short-run avoidable costs.”¹⁵³ But in fact, Amtrak did not make that argument, and the ICC did not address whether compensation should be so limited. The ICC’s decision briefly distinguished “short-run” from “long-run” avoidable costs,¹⁵⁴ but the issue before it was whether the Section 402 “just and reasonable” compensation standard required recovery of (i) fully allocated costs or (ii) avoidable costs (with no temporal limitation).¹⁵⁵ The

¹⁵⁰ Crowley/Mulholland do, however, concede that subject to proof of causation, fuel costs due to freight delays caused by Amtrak “may qualify in appropriate circumstances as short-run avoidable costs.” *Id.* at 24.

¹⁵¹ 1973 Conference Report at 16 (emphasis added).

¹⁵² *See* Frankel RVS at 13-14.

¹⁵³ Frankel RVS at 6, n.19 (citing *Penn Central*, 342 I.C.C. at 831-32).

¹⁵⁴ *Penn Central*, 342 I.C.C. at 832.

¹⁵⁵ *See id.* at 831 (“*Penn Central* urges us to adopt as the ‘benchmark’ of the compensation formula promulgated herein the fully allocated cost of its intercity passenger operations. Amtrak urges us instead to adopt as the ‘benchmark’ the avoidable cost of such

ICC adopted the first benchmark (fully allocated costs) for Amtrak operations over Penn Central's Boston-to-Washington corridor, and the second (avoidable costs, with no "short-run" limitation) for Amtrak operations over Penn Central's other lines.¹⁵⁶

Frankel also mischaracterizes Congress's reaction to the *Penn Central* decision. Congress did not, as he claims, "specifically reject[] . . . the ICC's determination that compensation should be based on . . . long-run avoidable costs."¹⁵⁷ Congress disapproved of the ICC's ruling that Penn Central "should receive additional compensation in excess of avoidable costs in the Boston-Washington Corridor"¹⁵⁸ – *i.e.*, the use of a fully allocated cost standard. But it did not complain about the absence of temporal limitation in the avoidable cost standard the ICC adopted for Penn Central's other lines.

Third, since Congress established the incremental cost standard in 1973, we are unaware of it ever having been construed or applied in a Section 402 proceeding to limit compensable costs to those incurred in the "short-run," to exclude "capacity" costs or "opportunity" costs, or otherwise to be limited to specific types of costs, as Amtrak urges. Rather, ICC and Board decisions have consistently rejected limitations on the kinds of cost that are compensable, so long as they are costs that would not have occurred but for Amtrak.¹⁵⁹

intercity passenger operations."); *accord id.* at 823-25 (detailing Penn Central's position); *id.* at 825-27 (detailing Amtrak's position).

¹⁵⁶ *Id.* at 832-33.

¹⁵⁷ Frankel RVS at 14.

¹⁵⁸ 1973 Conference Report at 16.

¹⁵⁹ *See, e.g., UP/SP*, 3 S.T.B. at 145 ("nothing in the incremental cost standard" precludes recovery of new types of costs hosts may incur, so long as they are directly traceable to Amtrak operations).

Instead of taking the kind of extreme “short-run” perspective assumed by Crowley and Mulholland (who deem any acquisition or rental of labor or equipment to entail a non-compensable “long-run” cost), the ICC in *Conrail* accepted, and Amtrak itself “agree[d] that a 7-year time period” was “appropriate to determine the annual average MOW costs,” and that “both capital and expense items should be included, as the goal is to capture all MOW costs incurred by” the host.¹⁶⁰ And instead of excluding capacity costs, the Board in *UP/SP*

point[ed] out to Amtrak . . . that UP/SP may appropriately charge it for the use of its facilities. 49 U.S.C. 24308(a)(2)(B) permits freight railroads to recover from Amtrak their “incremental” costs – those costs that the carrier incurs as a result of Amtrak’s use of its facilities – and that term is not as limiting as Amtrak may believe. Today, UP/SP and other railroads are facing significant capacity constraints and are making major investments to add the capacity and facilities necessary for handling increased freight traffic. Amtrak’s plan to expand its express service at the same time – and thus its use of the freight carriers’ facilities – could further strain that capacity, require additional infrastructure investment, and impose other substantial costs. We see nothing in the incremental cost standard that would preclude the railroads’ recovery of these and other costs that they incur if they are directly traceable to Amtrak’s increased services. Should Amtrak and UP/SP fail to agree to the terms of Amtrak’s access, then, pursuant to 49 U.S.C. 24308(a)(2)(A)(ii), we are available to prescribe compensation and will do so utilizing these principles.¹⁶¹

¹⁶⁰ *Conrail*, 10 I.C.C.2d at 888. If costs were to be bounded by a time period, given the longevity of the CN-Amtrak relationship – over 4 decades – and the intent to renew for a multi-year term (Amtrak proposes 10 years; CN proposes a renewable 3 years), a substantial multi-year period would be appropriate.

¹⁶¹ *UP/SP*, 3 S.T.B. at 145; *accord id.* at 155 & 155-56 n.24 (“[s]hould Amtrak’s increased express service cause capacity constraints requiring additional infrastructure investment, we see no reason why we would not include those directly attributable costs” because, “as a matter of course, we view all costs that a freight carrier would not incur but for the operations of Amtrak as incremental costs”); *Application of the Nat’l R.R. Passenger Corp. Under 49 U.S.C. 24308(a) – Springfield Terminal Ry. Co., Boston & Maine Corp., & Portland Term. Co.*, 3 S.T.B. 157, 169 (1998) (“*Guilford*”) (with respect to the host’s proposal to “provide for additional future compensation for incremental costs . . . that [it] would incur to increase the capacity of its facilities when such an increase would not be necessary in the absence of passenger service,” “[i]f other incremental costs arise, such as those associated with facility capacity, Guilford may petition for reopening of this proceeding to address those matters”). The Board’s recognition that compensable incremental costs include capacity costs is consistent with

Finally, Amtrak’s arguments for limiting the categories of recoverable incremental cost are unsound as a matter of economics and public policy. Whether a cost can be categorized as “long-run” or “capacity” or “opportunity” cost is irrelevant to whether it would exist in Amtrak’s absence, which is both the decisive question under the statute and the key to determining whether Amtrak must internalize it in order for its incentives to align with the public interest. Thus, as Professor Willig explains, economists recognize incremental costs as encompassing “the costs of additional capacity required to replace capacity utilized to accommodate hosting requirements.”¹⁶² Moreover, treating different (and ill-defined) categories of incremental cost differently could lead to inefficiencies. A “capacity” or “long-run” or “opportunity cost” solution to a problem is often more efficient than a short-run solution. For example, it is often more efficient to buy or divert extra resources than to rent it or to tolerate a loss of productivity. A rule that discriminates against such a solution in terms of cost recovery would discourage its use and actually increase the relevant incremental cost due to the induced inefficiency that would result.¹⁶³

Congress’s inclusion of infrastructure costs in “avoidable costs” in the context of abandonment proceedings under 49 U.S.C. § 24309(d) and 49 U.S.C. § 10904.

¹⁶² Willig VS at 5.

¹⁶³ *See, e.g.*, GUNNAR NIELS, HELEN JENKINS AND JAMES KAVANAGH, *ECONOMICS FOR COMPETITION LAWYERS* at 376 (2016) (“[Long-Run Incremental Cost (“LRIC”)] pricing allows for recovery of the fixed costs of providing additional network capacity. As the relevant increment becomes larger or is considered over a longer time period, more costs become incremental. Although it deviates from short-run efficient price signals (if there is excess capacity, pricing at short-run marginal costs gives the right signals for usage of the capacity), LRIC pricing can be more efficient over time since it takes into account both short-run marginal costs and the contribution to capital costs of incremental use of the network, thus preserving incentives to invest in efficient network provision. It also allows incremental investments to be directed to those parts of the network where there is an efficient need for them.”).

Nor is there any basis for Frankel’s suggestion that long-run avoidable cost is “equivalent to fully allocated costs,” Frankel RVS at 10, or for his claim that “including opportunity costs is economically equivalent to requiring Amtrak to pay full arms-length market prices” for access to CN’s facilities, *id.* at 14; *see also id.* at 16. Frankel is conflating distinct economic concepts with distinct meanings. Fully allocated costs include a share of common costs that would occur even in Amtrak’s absence. Avoidable costs do not, regardless of whether they are “short-run” or “long-run.” And opportunity costs are an element of avoidable, or incremental, cost arising from the displacement of the utilization of host resources that would otherwise have enabled the earning of revenues.¹⁶⁴ If due to Amtrak’s presence a host suffers long-run costs or capacity costs that it would not otherwise suffer or forgoes revenues that it would otherwise collect, it has incurred an incremental cost, and if that cost is not compensated, it will not achieve the same financial position that it would have achieved had Amtrak not existed, as required by the RPSA.¹⁶⁵

2. The statutory preference requirement affords no basis for denying host compensation for freight delay and capacity costs caused by Amtrak.

Frankel also argues that CN’s position that freight delay and interference costs caused by Amtrak are compensable under Section 402 is “arbitrary” because it “fails to account for

¹⁶⁴ It is a commonplace of economic and regulatory policy literature that incremental costs include relevant opportunity costs. *See, e.g.*, STEPHEN G. BREYER, REGULATION AND ITS REFORM at 306 (1982) (“to determine the proper toll for pedestrians, . . . one must take account of the fact that the incremental cost of their using the bridge is not just the extra walkways and the related wear and tear, but that plus the revenues from cars and so forth, that the bridge owner foregoes by devoting part of his bridge to pedestrians.”); WILLIAM J. BAUMOL & ALAN S. BLINDER, MICROECONOMICS: PRINCIPLES AND POLICY at 4 (2016) (“Economists maintain that rational decision making must be based on opportunity costs, not just dollars costs.”).

¹⁶⁵ *See, e.g., Metro North*, 1985 ICC LEXIS 318, at *2.

Amtrak's preference."¹⁶⁶ His case for the alleged incompatibility between preference and freight delay and interference cost compensation appears to have two elements. Neither is persuasive.

First, he contends that under Professor Willig's view of incremental cost, which includes freight delay and interference costs, "Congress would have had no reason to codify preference, because the definition of incremental costs advocated by Professor Willig would make passenger service as profitable to railroads as freight service and preference therefore unnecessary."¹⁶⁷

Frankel's premise is false, for the reasons discussed in the last subsection: CN's definition of incremental cost generally falls far short of market price and generally does not contain an element of coverage of a railroad's substantial common costs, including its necessary costs of capital. Even full incremental cost compensation that included opportunity costs and long-run capacity costs caused by the hosting of Amtrak would not generally cover common costs and overall costs of capital, and would not make a separate legal motivation to perform "superfluous," *id.* at 9. As Amtrak's own witness, Professor Baumol, explained in *Penn Central*, a host must "be able to sell its services at prices sufficiently above its incremental costs" to permit it to cover, overall, the residue of the total costs necessary for the services it provides, plus an acceptable rate of return on its investment."¹⁶⁸ Moreover, CN is not seeking full incremental cost compensation in this case. Because of the difficulties in quantifying lost revenues and other capacity costs, CN is seeking compensation only for certain readily

¹⁶⁶ Frankel RVS at 9.

¹⁶⁷ Frankel RVS at 4.

¹⁶⁸ Statement of William J. Baumol at 9 ("Baumol VS"), *Baker, et al., Trustees of Penn Cent. Transp. Co., Debtor—Compensation for Passenger Serv.*, ICC Finance Docket No. 27353 (Sub-No.1), 342 I.C.C. 820 (1973), *quoted in* Jeffrey P. Price & Frank J. Berardino, *Defining Economic Terms Used in the Railroad Revitalization and Regulatory Reform Act*, 9 Transp. L.J. 133, 149 (1977).

quantifiable freight delay costs. And even those costs are, as explained in Section III, conservatively estimated.¹⁶⁹

Second, Frankel argues that “considering the significance of the Amtrak statutory preference, it is not economically reasonable to attribute to Amtrak a host’s delay and interference costs.”¹⁷⁰ His claim appears to be that Amtrak’s right to preference excuses it from paying for CN’s incremental freight delay costs arising from delays due to Amtrak. If so, it rests on two unsound premises.

The first premise is that Amtrak’s preference right is a right to receive preference without paying for the cost of preference. It is not. The RPSA has, since its inception in 1970, required that Amtrak pay “reasonable” compensation for the services hosts are compelled to provide it, and “Amtrak’s right to use the facilities or have the services provided is conditioned on payment of the compensation.”¹⁷¹ In 1973, Congress amended the RPSA to specify that one aspect of the services hosts are compelled to provide is “preference over freight transportation in using a rail line, junction, or crossing,”¹⁷² while at the same time it clarified that “reasonable” compensation requires payment of incremental costs,¹⁷³ *i.e.*, “**all** costs which would not be incurred if passenger

¹⁶⁹ While CN’s proposal in this case would not have the flaw of making preference “superfluous” as a motivation for CN, Amtrak’s Initial Proposal (discussed in Section IV.B) would have that flaw: it is designed to impose penalties for delays to CN { [REDACTED] } See Sacks VS ¶48.

¹⁷⁰ Frankel RVS at 8.

¹⁷¹ 49 U.S.C. § 24308(a)(2)-(3).

¹⁷² 49 U.S.C. § 24308(c).

¹⁷³ 49 U.S.C. § 24308(a)(2)(B).

service were not performed for Amtrak.”¹⁷⁴ Congress did not exempt preference from the requirement of compensation, and the constitutional and economic principles that require incremental cost compensation apply to preference no less readily than they apply to the other aspects of the services hosts are compelled to provide.¹⁷⁵ Amtrak has a right to preference at incremental cost, as it does to the other aspects of the service, but Amtrak does not have a right to preference for free.¹⁷⁶

The second necessary premise of Frankel’s claim is that all freight interference costs are attributable to Amtrak’s statutory preference right. That premise is also plainly false. Some of CN’s freight interference costs may be attributable to its preference obligation, but many are plainly not. Freight trains are delayed due to Amtrak for myriad reasons, just as they were before the preference right was created in 1973. Even if CN gave Amtrak no priority, it would suffer freight delays when Amtrak trains block its lines because of station stops, breakdowns, or

¹⁷⁴ 1973 Conference Report at 16 (emphasis added).

¹⁷⁵ The inclusion of preference in the services for which incremental cost compensation is required is also reflected in the long-standing regulations regarding relief from preference. Under 49 U.S.C. § 24308(c), the Board may grant, upon reasonable terms, an application for relief from preference if the host shows that preference “materially will lessen the quality of freight transportation provided to shippers.” The regulations implementing that provision provide that a host seeking relief from preference must provide “an analysis of whether and by how much Amtrak’s compensation to the railroad should be reduced if the preference requirement is altered.” 49 C.F.R. § 200.5(c)(3). Implicit in the notion that compensation would be reduced upon relief from preference is that preference is something for which compensation is payable.

¹⁷⁶ If Amtrak is concerned that preference will cost it too much, it can agree, {{ [REDACTED] }} to relieve CN of its preference obligation. *See, e.g.*, {{ [REDACTED] }}

{{ [REDACTED] }} AT0000022884 (Hirsh VS, Exh. 1); {{ [REDACTED] }}

{{ [REDACTED] }} ATK0000022412 (Hirsh VS, Exh. 4).

other reasons. And Amtrak's statutory right is by no means the sole reason CN allows Amtrak trains to delay CN trains. Sometimes doing so is necessary to preserve network fluidity, and sometimes doing so is necessary to meet Amtrak demands that go beyond any reasonable interpretation of Amtrak's right to preference. Any attempt to establish an exception to incremental cost compensation for costs attributable to preference necessarily fails, both on principle – because preference is part of the hosting services the RPSA requires Amtrak to pay for – and in practice – because there is no practical way for Amtrak to prove that particular costs are attributable to preference.

3. Incremental costs do not cease to be such because CN could avoid them by incurring different incremental costs.

Amtrak argues that because CN controls capital investments, operations, and schedules for its freight trains, CN, rather than Amtrak, should be held causally responsible, and denied compensation, when CN freight trains are delayed by Amtrak trains.¹⁷⁷ For example, Frankel argues:

It is in CN's power and discretion to reduce the claimed delay and interference costs allegedly arising from Amtrak's presence. CN could make a capital investment to increase its capacity to run freight trains without causing delays to those trains or to Amtrak trains, adjust its freight schedules to avoid causing delay to Amtrak trains, or appeal for relief from the Board.¹⁷⁸

Part of Amtrak's premise is – trivially – true. CN could prevent Amtrak trains from delaying CN trains by not running any freight trains at all. Or CN could do so by building

¹⁷⁷ Frankel RVS at 9-11; Vilter/Maga RVS at 7-23.

¹⁷⁸ Frankel RVS at 10 (citing 49 U.S.C. § 24308(c)). Frankel errs in suggesting that the relief from preference provision in 49 U.S.C. § 24308(c) affords CN protection against freight delay costs. On its face, that provision applies only upon a showing that preference “materially will lessen the quality of freight transportation provided to shippers.” If the quality of that service is maintained but CN sustains freight delay costs, the relief provision is not triggered. The relief provision protects shipper interests; host interests are protected by the right to incremental cost compensation that Amtrak seeks to undermine.

dedicated tracks for Amtrak – effectively, building a railroad for Amtrak – or by creating a huge “bubble” around every Amtrak train in which no freight trains would run – effectively, ceding CN’s railroad to Amtrak. But Amtrak’s conclusion does not follow. Amtrak is not entitled to a “free ride” by having CN build or cede a railroad to Amtrak, and it is not entitled to be placed in the same position as if CN had built or ceded a railroad to it by requiring CN to host it without being compensated for the costs it imposes on CN. Rather, CN is entitled to build and maintain the railroad that meets its own business needs (subject to Amtrak’s right to pay CN, at cost, to maintain capacity for Amtrak under 49 U.S.C. § 24309(d)), and to operate its own freight service on its own railroad in a manner that meets its business needs (subject to Amtrak’s right to preference, for which, as discussed in the last Subsection, Amtrak must also pay CN at cost).¹⁷⁹ The fact that CN could replace freight delay costs caused by Amtrak’s presence with potentially greater capacity costs (costs of new infrastructure) and opportunity costs (lost freight revenues) caused by Amtrak’s presence does not preclude those freight delay costs from being compensated. They remain costs that CN incurs that it would not incur in Amtrak’s absence – *i.e.*, incremental costs.

This fundamental point rebuts multiple related arguments that Amtrak makes. Amtrak argues that if capital investment is required to alleviate Amtrak-caused delays and interference

¹⁷⁹ {{

}} ATK000033136_2 (Hirsh RVS, Exh. 91).

with freight traffic due to increases in freight traffic, that should not be Amtrak's responsibility.¹⁸⁰ But CN is entitled to increase freight traffic on its own lines, and it is in the interest of shippers and the public that CN do so to improve freight service. The incremental cost standard requires Amtrak to compensate CN, the "dominant user," such that CN is in the same financial position as it would be in Amtrak's absence – *i.e.*, to compensate for delays that would not occur in Amtrak's absence – regardless of the level of freight traffic.¹⁸¹

Amtrak's argument about reductions in track capacity¹⁸² is likewise a red herring. Under 49 U.S.C. § 24309(d), a railroad is free to abandon excess capacity if Amtrak will not pay the avoidable cost of retaining it. When, long ago, IC removed its double track between Chicago and Memphis, which was not needed to handle its freight traffic, Amtrak did not offer to pay the avoidable cost of maintaining it, and Amtrak does not offer to pay to restore it now. Nothing in the RPSA or elsewhere requires CN to maintain, at its own expense, infrastructure for which it and its shippers would have no need in Amtrak's absence.

Frankel also raises the specter of a scenario in which "Amtrak agreed to fund capacity improvements and . . . the host railroad then added another freight train," consuming the capacity created by Amtrak's investment and leading to increased Amtrak-caused freight delays, for which the host might seek compensation.¹⁸³ That scenario is hypothetical, since Amtrak has made no investment in capacity improvements on the CN lines it uses.¹⁸⁴ If Amtrak were to do

¹⁸⁰ Frankel RVS at 9-10; Vilter/Maga RVS at 8-10.

¹⁸¹ *See Metro North*, 1985 ICC LEXIS 318, at *2.

¹⁸² Vilter/Maga RVS at 10-12.

¹⁸³ Frankel RVS at 10.

¹⁸⁴ Ladue/Kuxmann VS at 6-7 ("CN has developed at its own expense and shared with Amtrak several detailed proposals for track and signal work to reduce delays to Amtrak and delays to CN's freight caused by Amtrak. . . . Amtrak, however, has either been unwilling or

so, it could negotiate conditions for its investment, as it has when making investments in lines of other carriers to support other Amtrak services. But it is not entitled to “free ride” on CN’s investments by refusing to pay CN’s incremental costs.

The same principle applies to Amtrak’s arguments about CN’s operational decisions.¹⁸⁵ Subject only to Amtrak’s right (conditioned on payment of incremental cost) to preference, CN is entitled to decide how to operate its rail line in the best interest of itself and its shippers, including how and when to schedule its freight trains, how long and at what HPT ratio those freight trains will run, and when to perform maintenance. CN should not be punished for exercising that right by being denied its statutory right to incremental cost compensation.

Amtrak argues that “CN’s operational variance of its own trains from their schedules, high-level of self-inflicted delays and constant changes to the schedules of its own trains dispel any impression that it is Amtrak’s presence that prevents CN from running a precision railroad.”¹⁸⁶ But CN has every incentive to, and does, schedule its freight trains as efficiently as possible to serve its shippers. Sometimes that involves adjusting schedules to avoid meets and shortening trains so that they can fit in sidings, but sometimes it is more efficient to adhere to a

unable to provide or secure funds for capital improvements to address locations where added line capacity is necessary to address Amtrak’s delay concerns.”).

¹⁸⁵ See Vilter/Maga RVS at 12-16 (CN “makes numerous operating decisions that have a substantial impact on the level of delay experienced by CN’s trains,” citing schedules, horsepower-per-ton (“HPT”) ratio, and “performance priorities” as among those decisions); Frankel RVS at 9 (CN’s claimed costs all “flow from CN’s own operational decisions”).

¹⁸⁶ Vilter/Maga RVS at 16-21. Amtrak cites a handful of emails (none involving CN lines on which Amtrak operates) in which CN employees responded to and corrected unwarranted schedule changes as somehow illustrative of a freight schedule changing “problem” that is “out of control.” *Id.* at 17-18. Instead, these emails show how important accurate schedules are to CN, and how seriously CN treats the issue. CN managers continually monitor changes to train schedules and correct and reprimand employees who make unwarranted changes to them. CN’s freight schedules are critically important to its ability to serve shippers efficiently, and they provide a fair and reliable basis on which to measure freight train delays.

particular schedule or run a longer train notwithstanding that doing so may increase the likelihood of Amtrak-related delays. While those decisions may reduce CN's Performance Payments, CN should not be further penalized for making an efficient decision about how best to serve its shippers by denying CN its right to incremental cost compensation.

Finally, Amtrak suggests that compensating CN for the incremental costs of Amtrak-caused freight delays will create perverse incentives for CN to incur such delays rather than making operational adjustments to avoid them, "knowing that it could extract cash payments from Amtrak for delay costs,"¹⁸⁷ and "could even" lead to CN "shift[ing] operating costs it knows it will incur anyway from itself to Amtrak."¹⁸⁸ Amtrak misrepresents the potential significance of incremental delay cost compensation to CN's decision-making. Efficient schedules and train lengths are critical to CN's freight service and revenues. The prospect of incremental cost compensation for Amtrak-caused delays will not cause CN to prefer inefficient operations. By definition, even complete incremental cost recovery does no more than restore the host to the financial position it would have occupied in Amtrak's absence; it does not entail any gain from hosting, or from sustaining delays attributable to, Amtrak.¹⁸⁹ And in practice, as elaborated in Section III, incremental cost compensation for freight delays will be far from complete.

Nor will CN disrupt its critical freight operations to create the illusion that delays it would suffer in the absence of Amtrak are attributable to Amtrak. In any event, if CN did so, delay costs that would have occurred in Amtrak's absence are not incremental costs. The

¹⁸⁷ *Id.* at 21.

¹⁸⁸ *Id.* at 21-22.

¹⁸⁹ *See, e.g., Metro North*, 1985 ICC LEXIS 318, at *2 (incremental cost recovery "put[s] the dominant user in a position no better . . . than if the minority user had not been present").

mechanism CN proposes in Section III.B for recovery of freight delay incremental costs provides for transparency and ample opportunity for Amtrak to review and challenge claims for costs that are not genuinely incremental. A hypothetical and implausible suggestion that CN might make false claims does not justify denying it compensation for an entire category of genuine incremental costs.

There is a real and substantial issue concerning perverse incentives, but it points in the opposite direction from Amtrak's arguments. In a capacity-constrained rail system, the public interest is best served by finding an efficient mix of capacity investments and tolerance of delays – sometimes an infrastructure expenditure will be worth the delays it prevents, and sometimes it will not. That efficient mix is most likely to be achieved if the relevant decision-makers are individually relatively neutral as between investment costs and delay costs – if their interests are aligned with the public interest. Under the law as it stands, because CN owns the line capacity, Amtrak knows that if it wishes to gain the benefits of additional investment, it will have to fund or contribute to the incremental costs of those investments. But if Amtrak's position prevails, if Amtrak's demands and use of CN's lines generate additional freight delay costs, it will not have to contribute to pay for those delay costs. Denying hosts compensation for Amtrak-caused freight delay costs would, thus, give Amtrak a perverse incentive to prefer delay costs to investment costs even if investment is clearly socially efficient and in the public interest. In other words, a regime in which Amtrak is not required to compensate its hosts for the freight delay costs it causes is a regime in which Amtrak can be expected to refuse to participate in efficient levels of investment for the benefit all rail users, because it need not consider the potential cost savings due to reduced interference.

D. The Board Should Confirm CN's Right to Full and Unconditional Recovery of Its Incremental Costs, Including Freight Delay Costs Incurred Due to Amtrak.

For the reasons set forth above, the Board should confirm CN's right to full recovery from Amtrak of all of CN's incremental costs of hosting and providing preference to Amtrak, as CN is compelled to do under the RPSA. That statutory right is without any categorical limitation, and the Board should confirm that it includes freight delay costs due to hosting Amtrak. The Board should further confirm that there are no conditions on CN's statutory right to incremental costs; in particular, CN's compensation for those costs cannot be offset by net penalties, although penalties can offset performance payments over and above incremental cost.

By confirming these principles, the Board will ensure that the law is clear and Amtrak has the right incentives (as do its sponsors), based on internalizing the incremental costs it imposes, to establish appropriate goals and priorities in light of the inevitable trade-offs between service standards, schedule lengths, capital investment, and operating costs. The parties can then negotiate further as necessary and implement a revised Operating Agreement consistent with the public interest.

III. CN'S PROPOSED MODIFICATIONS TO IMPROVE THE OPERATING AGREEMENT, WHILE MAINTAINING ITS ESSENTIAL STRUCTURE, SHOULD BE ADOPTED.

In contrast to Amtrak's proposals (discussed in Section IV), CN proposes to retain the Operating Agreement's essential structure. However, CN proposes to improve it in three principal areas.

First, CN proposes modest revisions to the Performance Payments and Penalties provisions, including several changes intended to address issues raised by Amtrak.¹⁹⁰ CN also

¹⁹⁰ See Section III.A.1; Exh. 1, at App. V-1 – V-29.

proposes a new remedial provision to address Amtrak's stated concern about the potential effect on CN's incentives of the lookback provision in the unlikely scenario in which performance consistently fails to meet the standards established under the Agreement.¹⁹¹

Second, in order to better (but still incompletely) effectuate CN's right to full incremental cost compensation, as discussed in Section II, CN proposes that its base compensation be revised to include some of the quantifiable costs of delays to CN freight trains due to hosting Amtrak's trains.¹⁹²

Third, in order to achieve more realistic, efficient, and cooperative scheduling, and to facilitate achievement of Amtrak's stated goal of high ASOTP, CN proposes revisions to some current schedules and to the contractual process for negotiating and implementing schedule revisions.¹⁹³

A. The Existing Performance Payments and Penalties Provision of the Operating Agreement Should Be Preserved, with the Changes Proposed by CN, Which Incorporate Modifications Proposed by Amtrak.

Amtrak's criticisms of the KOTP-based Performance Payments and Penalties provisions of the Operating Agreement are unfounded. The existing KOTP system¹⁹⁴ is the industry

¹⁹¹ See Section III.A.2; Exh. 1, at 42.

¹⁹² See Section III.B; Exh. 1, at App. IV-7.

¹⁹³ See Section III.C; Exh. 1, at 11. CN also proposes an appropriate term for the revised Operating Agreement (see Section III.D; Exh. 1, at 39), and incorporation of a Safety Appliance Cost provision { [REDACTED] } (see Section III.E; Exh. 1, at App. IV-16 – App. IV-19).

¹⁹⁴ The KOTP system referenced here is Appendix V of the Operating Agreement, which currently applies to trains on the IC Lines. Both parties agree that the Amtrak services over the GTW Lines should be brought under the same performance payment and penalty system as those on the IC Lines.

standard,¹⁹⁵ and was identified by the Board’s predecessor agency as “appropriate,”¹⁹⁶ and even as “the only practicable standard.”¹⁹⁷ CN has shown that the KOTP provisions incentivize it to provide, and it does provide, good service to Amtrak, and that its current performance is consistent with Amtrak’s stated ASOTP goals given adoption of an appropriate schedules.¹⁹⁸

The existing KOTP-based structure should, therefore, be retained. However, CN proposes modest changes to make the calculation of Performance Payments and Penalties fairer and more economically rational, implement CN’s proposed new schedules, streamline contract administration, and incorporate the GTW Services. A number of these changes, such as CN’s proposal to incorporate Amtrak’s delay codes and to add new checkpoints, are designed to accommodate Amtrak’s stated preferences and proposals.¹⁹⁹

1. CN’s proposed changes to the Performance Payments and Penalties provision should be adopted.
 - a. Add and modify relief items.

Appendix V, Section A.1. of the Operating Agreement lists relief items that identify types of delay which the parties have agreed should not be counted against CN in determining whether an Amtrak train is on time at a checkpoint. It is important that relief items accurately delineate CN’s responsibility for Amtrak delays. CN should be held responsible for delays it can

¹⁹⁵ {{ [REDACTED] }}

¹⁹⁶ *Minnesota Transfer Ry. Co. Order to Provide Servs., Tracks & Facilities for the Operations of Trains of the Nat’l R.R. Passenger Corp. & the Establishment of Just & Reasonable Compensation*, 354 I.C.C. 552, 571 (1978) (“MTRC”).

¹⁹⁷ *T&P*, 348 I.C.C. at 672.

¹⁹⁸ See Section I.B-C; Krueger RVS at 13-14 (demonstrating that performance of the Illini/Saluki service would have achieved 80% ASOTP under the schedules proposed by CN and past performance that was subject to the KOTP system).

¹⁹⁹ See Ladue/Kuxmann RVS at 4-5.

reasonably prevent, but not for delays that are beyond its reasonable control, or more efficiently prevented by Amtrak. Penalizing CN for delays it cannot reasonably prevent is unjust and serves no useful purpose; there is no point in incentivizing someone to achieve something they cannot reasonably achieve.²⁰⁰

CN's proposed modifications to the relief items²⁰¹ start with a point of agreement between the parties: Amtrak's existing HRD delay codes should be used as a screen for CN-responsible delays.²⁰² That screen can simplify the Agreement (by allowing the parties to eliminate redundant relief items), reducing disputes and administrative costs.²⁰³ However, Amtrak's delay codes were adopted unilaterally, without any negotiation, and for purposes of identifying delays reasonably within a host railroad's control, they are too broad. Therefore, CN

²⁰⁰ Willig VS at 9-10 (“Penalties for events beyond CN’s control serve only to transfer the risk of certain costs from Amtrak to CN and serve no socially useful function.”)

²⁰¹ See Exh. 1 at App.V-1 – App. V-6 for CN’s proposed changes to the relief items.

²⁰² Compare Ladue/Kuxmann VS at 56-58 with Vilter/Maga RVS at 55, 57; see also Ladue/Kuxmann SRVS at 26-30. Amtrak objects to CN's proposed inclusion of delay codes that are inapplicable outside of the Northeast Corridor. See Vilter/Maga RVS at 56-57. But CN has done so only to ensure that it is not suspected of overlooking those codes; the draft Operating Agreement proposed by Amtrak lists those codes but specifically identifies them as "Codes Used Only on Northeast Corridor" and as "not to be used for Amtrak trains on CN Rail Lines." Vilter/Maga RVS at 56. Nothing would be gained by removing those codes, and the assurance that all codes have been accounted for would be lost.

²⁰³ For example, several specific relief items corresponding to delays coded by Amtrak as “OTH” (a non-HRD code) can be removed from the Agreement. See Ladue/Kuxmann SRVS at 27-28.

proposes to maintain (or add) some relief items to ensure that delays outside its reasonable control would not count against it.²⁰⁴ For example, CN showed that although Amtrak's copying track authorities²⁰⁵ or participating in joint efficiency testing should be coded as SYS (an Amtrak-responsible delay code) and not as HRD, Amtrak in fact regularly and incorrectly codes them as such (copying track authorities as "RTE" and delays related to joint efficiency testing as "DCS").²⁰⁶ In addition, some existing relief items must be maintained because they were bargained for by CN in exchange for giving Amtrak something it wanted, such as additional train starts. For example, relief for delays at interlockings not controlled by CN was added to the agreement in 2006 as part of a negotiated agreement to add 6 additional Amtrak trains (2 Illini/Saluki and 4 Lincoln service trains)).²⁰⁷ Amtrak should not be permitted a windfall by removing the relief items while also keeping the trains that were added in exchange for the relief items.

Amtrak not only objects to CN's proposed new relief items, but also objects to the inclusion of **any** relief items whatsoever, including long-standing relief items, relief items found in every other KOTP-based Class I Operating Agreement, and relief items that were specifically bargained for by CN in exchange for significant benefits for Amtrak. In particular, Amtrak objects to four "new" relief items, on the ground that "they would unreasonably shift responsibility for delays from CN to Amtrak."²⁰⁸ Conceptually Amtrak is wrong in claiming that

²⁰⁴ Some of the "new" relief items are actually items that currently apply to the trains on the GTW Services, and which CN is merely making applicable to all trains.

²⁰⁵ Because Amtrak chooses to operate its trains with only a single crew member in the locomotive, the train must stop while the engineer copies the track authority.

²⁰⁶ See Ladue/Kuxmann SRVS at 29-30.

²⁰⁷ See Ladue/Kuxmann SRVS at 24

²⁰⁸ Vilter/Maga RVS at 51. The four items are:

relief items “shift responsibility” to Amtrak. Relief items merely provide that CN will not be held responsible for delays beyond its reasonable control (including delays caused by third parties). More importantly, however, as CN has already explained regarding the four relief items in question, “only two of these relief items are actually ‘new,’ and none is unreasonable.”²⁰⁹

Crossover Moves

The proposed new relief item for delays for crossover moves in excess of two minutes is merely a reflection of the fact, acknowledged by Amtrak in its Service Standards Manual, { [REDACTED] },²¹⁰ regardless of whether a “CN dispatcher elects to cross over an Amtrak train.”²¹¹ The relief item still holds CN responsible for crossover moves, but assures that Amtrak will not over-allocate delay minutes to such a move.

(1) “[d]elay of more than two minutes for each instance of delay caused by movement of an Amtrak train over a crossover between tracks,”

(2) “[d]elays caused by freight train interference that prevents Amtrak from entering CN’s line when an Amtrak train that arrives at an entry point to a CN line more than 15 minutes after its scheduled arrival time without having provided CN with notification of such arrival at least 30 minutes in advance,”

(3) “[u]p to a maximum of three minutes of delay per 100 scheduled miles per trip of a train or portion thereof (*i.e.*, 157 miles would equate to a 6-minute maximum), caused by Programmed Maintenance of Way projects when Amtrak is given 90 days advance notice detailing the dates, the line segment to be affected, and the amount of delay anticipated,” and

(4) “[t]he amount of time a trip of an Amtrak train is delayed at an interlocking not controlled by CN, after CN’s dispatcher has transmitted the electronic indicator lining the signals for the CN route.”

Ladue/Kuxmann VS, Exh. 15 at 4-5 (proposed App. V, § A.1.e.(9), (11), (13), g).

²⁰⁹ Ladue/Kuxmann SRVS at 23.

²¹⁰ Vilter Maga RVS, Exh. 29 (Amtrak Service Standards Manual at 7-115) { [REDACTED]

[REDACTED] }; *see also* [REDACTED]
Ladue/Kuxmann VS at 61 n.77 { [REDACTED] }.

²¹¹ *See* Vilter/Maga RVS at 51.

Late and Unannounced Arrival

The proposed new relief item for delays caused when an Amtrak train is unable to enter CN's lines, after arriving late and unannounced to the entry point, is fair and appropriate. In fact, resistance to this common sense relief item typifies Amtrak's refusal to take responsibility for its own trains.²¹² It is not reasonable to expect CN to hold its line open interminably for significantly late trains or for the failure of Amtrak's prior host to notify CN of Amtrak's movement on its lines to enable CN to accommodate such trains efficiently.²¹³ Amtrak suggests that "requir[ing] Amtrak to act as an intermediary between CN's and other host railroads' dispatchers is impractical, inefficient and inconsistent with industry practice."²¹⁴ Not so. With GPS technology, Amtrak knows the location of its trains, and it can inform CN directly of late arrivals, if it wishes to do so. In fact, Metra has reduced delays on CN by doing so. And, as for its prior hosts, Amtrak, not CN, has the relevant contractual relationship with them. Amtrak, not CN, can influence whether an Amtrak train is late before it reaches CN and what information is provided when about that lateness. Amtrak can also contract to have the prior host's dispatchers provide CN with timely information about late trains.

²¹² According to Amtrak's own assessment, { [REDACTED] }. That is precisely where this problem is most pronounced. See Ladue/Kuxmann VS at 59 n. 74.

²¹³ See Ladue/Kuxmann VS at 60 n.75 (providing an example of a delay recorded by Amtrak as FTI due to a train that could not immediately enter CN's line due to freight traffic but which was almost an hour behind schedule).

²¹⁴ Vilter/Maga RVS at 53.

Programmed Maintenance-of-Way

The proposed relief item for programmed maintenance-of-way already applies on CN's GTW lines.²¹⁵ The fact that it is in the GTW section of the Agreement refutes Amtrak's claim that the item is inappropriate, unreasonable, or incapable of providing Amtrak with sufficient definition of "Programmed Maintenance of Way" or recourse to challenge CN's estimate of anticipated delays.²¹⁶ Amtrak failed to show that any of these problems have arisen under this existing provision. Moreover, it is not redundant with the provision for programmed maintenance-of-way currently applicable to the IC Services. The GTW provision applies automatically (provided CN provides sufficient notice), while the IC provision leaves CN at the mercy of Amtrak to "approve the request" for additional tolerance minutes. CN cannot reasonably avoid, and should not be incentivized to avoid, necessary, scheduled maintenance-of-way.

Foreign Interlockings and Other Delays Beyond CN's Control

A relief item for delays at "foreign" interlockings (*i.e.*, those controlled by a railroad other than CN) was added to the Operating Agreement in 2006 as part of CN's agreement to allow six additional Amtrak trains.²¹⁷ If Amtrak no longer wishes to abide by that agreement, it should cease operating its six additional trains. It should not be allowed to retain the benefit of its Agreement with CN, without abiding by its end of the bargain. In any event, this provision is

²¹⁵ See Agreement App. VI, § D.5.

²¹⁶ {{ [REDACTED] }}

²¹⁷ Ladue/Kuxmann SRVS at 24; Ladue/Kuxmann RVS at 44. For this reason, it should not be eliminated unless Amtrak agrees to stop running the 6 trains that were added in exchange for adopting the relief item.

appropriate since delays at interlockings controlled by other railroads are, by definition, outside of CN's reasonable control. Many foreign interlockings are automatically controlled, so the first train arriving is allowed to proceed and there is no human intervention that could be rationally incentivized (or penalized). And at other foreign interlockings, CN has no practical means to force other carriers to provide Amtrak with priority rights to which it is not entitled under existing agreements, and even if Amtrak wanted CN to acquire such rights on its behalf, that would clearly be an incremental cost for which CN should be compensated. If Amtrak believes additional notice to third-party railroads is required,²¹⁸ then it should supplement CN's notice by giving notice itself (as Metra does on the Joliet Sub) regarding its trains' positions and timing.

In addition, CN proposes a catchall relief item for "[a]ny delay resulting from causes, not listed above, which are normally not within the ability of CN to control."²¹⁹ There is no merit to Amtrak's complaint²²⁰ that use of Amtrak delay codes for screening makes that catchall relief item superfluous. If it were superfluous, it would also be harmless. But in reality, Amtrak's "Amtrak-responsible" and "third-party responsible" delay codes are too narrowly defined, and frequently too narrowly applied by Amtrak's staff, to cover all the delays beyond CN's reasonable control. The catchall relief item can be administered fairly through negotiation and, if necessary, arbitration. In its absence, CN has been, and would continue to be, penalized unfairly and pointlessly.

²¹⁸ Amtrak asserts { [REDACTED] } Vilter/Maga RVS at 55 n.140. However, Amtrak has not suggested that CN has failed to "transmit[] the electronic indicator lining the signals for the CN route," as required by the relief item. Nor has it shown that crossing carriers are unaware of when a signal request is for an Amtrak train. After all, those carriers can tell from Amtrak's published schedules (to which each has access) when Amtrak's train are due.

²¹⁹ Exh. 1 at App. V-6.

²²⁰ Vilter/Maga RVS at 57.

- b. Provide for the use of root cause, where available and appropriate, as the best evidence of the cause of delays.

Appendix V, Section A.3. of the Operating Agreement specifies the data sources that serve as the basis for determining delays for purposes of calculating Performance Payments and Penalties under Appendix V. CN proposes to amend that section to state that “evidence of root cause, as opposed to proximate cause, shall be taken as the best evidence of the cause of a delay.”²²¹ Considering root cause instead of only proximate (or direct) cause – which may be likened to considering what started a traffic jam instead of treating a vehicle immediately in front of you as the cause of your delay – is simple common sense, and essential to achieving a fair and accurate assignment of responsibility and a rational incentive scheme. { [REDACTED]

[REDACTED]

[REDACTED] }²²²

CN’s proposal would not require analysis of root cause in all cases, but would allow for its use where appropriate and clarify that information about root cause carries relatively more weight than information about proximate cause.²²³ In most cases, root cause will be the same as direct or proximate cause, or the difference will be immaterial to determining CN’s incentives/penalties, so no dispute will arise. But where reference to root cause would make a difference, there is no legitimate basis for excluding it. Two examples provided by CN illustrate the point:

[I]f there is a signal failure caused by vandalism to CN’s signal system, the root cause of the delay is the vandalism, not the signal failure. Likewise, if a

²²¹ Exh. 1 at App. V-6 (§ D.3).

²²² Amtrak Service Standards Manual at 7-115 (Exh. 31 to Vilter/Maga RVS)

{ [REDACTED]

[REDACTED] }

²²³ Ladue/Kuxmann VS at 65.

dispatcher imposes a slow order due to flooding on the rail line, the root cause is a weather-related delay, not the slow order.²²⁴

Amtrak's objections to using root cause are unpersuasive.²²⁵ Amtrak exaggerates both the difficulty of ascertaining root cause of delay and the frequency with which the issue will arise. Amtrak mischaracterizes CN's proposal as an attempt to "[r]elieve CN from responsibility for delaying Amtrak trains."²²⁶ It is, rather, a means of ensuring that responsibility is assigned where it belongs, including, where appropriate, to CN. Amtrak further mischaracterizes CN's proposal as relying on "self-reporting" by CN dispatchers regarding their own performance.²²⁷ Amtrak's complaint is hypocritical since Amtrak's eDR system is based on its conductors self-reporting regarding delays affecting their own performance. In any event, under CN's proposal, Amtrak's conductors, not CN's dispatchers, would remain responsible for attributing delays in the first instance, and it would be incumbent on CN to provide credible evidence to call that initial assignment into question on the basis of root cause.

c. Modify the "Do Not Count" provisions.

Appendix V, Section A.4 specifies a number of situations in which a train trip is not counted for purposes of calculating Performance Payments or Penalties (frequently referred to as "Do Not Count" or "DNC" provisions). These DNC provisions deal with unusual circumstances beyond CN's control that can cause major operating disruptions that may not be fully accounted for through ordinary relief items.

²²⁴ Ladue/Kuxmann SRVS at 33.

²²⁵ See Vilter/Maga RVS at 43-51.

²²⁶ Vilter/Maga RVS at 49.

²²⁷ *Id.*

CN proposes some modest revisions to the DNC provisions in order to resolve disagreements that have arisen about their application. For example, in response to Amtrak's repeated denials of relief for delays caused by significant, localized flooding and/or high winds,²²⁸ CN proposes { [REDACTED] [REDACTED] [REDACTED] [REDACTED] }.²²⁹ This change should provide clarity (by specifying that { [REDACTED] [REDACTED] } and eliminate recurring unnecessary disputes caused by Amtrak's overly narrow application of the relief item. As with the current provision, in order for either provision to apply, CN must supply specific documentation related to the event giving rise to the DNC provision, and CN has proposed changes to describe the types of evidence that would be deemed acceptable, again with the purpose of increasing fairness and clarity, and reducing disputes.

d. Incorporate GTW Services under the same Payments and Penalties Provision as IC Services

Incorporating the GTW trains into Appendix V and adopting CN's proposal for changes to tolerance (discussed at Section III.A.1.f.) requires conforming changes to Appendix V, Table 1. CN's proposal adds the GTW trains to Appendix V, Table 1, with the figures in the columns for "Contract Arr/Dep," "Contract Run Time," "Contract Station Dwell," and "Contract Segment Miles" taken directly from the schedule skeletons for those trains. Under its current system, the trains on the GTW Services do not have either a "Recovery Time Base" ("RTB") or Contract

²²⁸ See Ladue/Kuxmann VS at 63 n.80, 64 n.81 (providing examples of disputes between the parties related to the coding and treatment of delays caused by weather).

²²⁹ See Exh. 1, App. V-8 – V-10.

Basic Tolerance (“CBT”). CN proposes { [REDACTED] }
[REDACTED]
[REDACTED] } CN adopts Amtrak’s proposal to set CBT for the short segments of the Wolverine service at { [REDACTED] }. On the longer segments of the Blue Water service, CN proposes to set the CBT to { [REDACTED] }, which is consistent with the treatment of segments of similar length under the existing IC system. CN’s proposal also adds conforming notes for the determination of on-time performance at the checkpoints for the GTW trains.

- e. Add checkpoints for City of New Orleans and Illini/Saluki services.

In its Rebuttal Submission, and in Section I.A, above, CN explained that Amtrak’s professed goal of 80% ASOTP could best be achieved by modifying existing schedules. However, CN is also willing to offer a compromise in response to Amtrak’s call for more checkpoints. (Section IV.A.2 explains why Amtrak’s proposal to make every station a checkpoint should be rejected.)

Subject to adoption of its proposed revisions to the Illini/Saluki schedules, CN proposes to add Champaign as a new checkpoint on the Illini/Saluki service. Champaign is the second most heavily used station for this service (*i.e.*, it has higher total ridership than all stations other than Chicago)), and adding it to the existing checkpoints at (or near) the endpoint of the service would mean that 77% of the riders boarded or departed at a checkpoint) and it is close to the midpoint of the route (it is 126.4 miles from Clark Street and 180.3 miles from Carbondale). CN is also amenable to adding two checkpoints on the City of New Orleans service, provided that revisions are made to the existing schedules for that service comparable to those CN has proposed for the Illini/Saluki trains.

Implementing CN's proposal for additional checkpoints for the Illini/Saluki service requires conforming changes to Appendix V, Table 1. Changes to the columns for Train Numbers 390-393, for "Contract Arr/Dep," "Contract Run Time," "Contract Station Dwell," and "Contract Segment Miles" are taken directly from the schedule skeleton for the new schedules proposed by CN. Changes to the column for "Contract Recovery Time Base" for the Illini/Saluki segments are based on { [REDACTED] [REDACTED] }.

f. Modify contract basic tolerance.

As part of its new Rebuttal Proposal, Amtrak would set tolerance uniformly at { [REDACTED] [REDACTED] }.²³⁰ For trains making relatively short movements, CN agrees and proposes that { [REDACTED] [REDACTED] } of tolerance should be used. For the longer movement segments for its City of New Orleans, Illini/Saluki, and Blue Water trains, however, CN proposes to retain the present tolerance of { [REDACTED] [REDACTED] }. Doing so is consistent with Amtrak's formula for Endpoint OTP, which employs larger tolerances for longer routes.

g. Improve processes for determining delay responsibility.

CN proposes amendments to streamline and improve the administration of the Performance Payment and Penalty provisions of the Operating Agreement.²³¹ CN proposes to amend Section 5.2.A to provide that (a) each party be required to designate a single point of contact, with authority to resolve disputes over amounts billed, including assignment of causes

²³⁰ See Section IV.A.3.

²³¹ Ladue/Kuxmann VS at 62-65.

for delays to Amtrak trains for purposes of computing incentives and penalties,²³² and (b) resolutions of disputes between the parties regarding appropriate delay coding (whether by agreement, through arbitration, or through some other binding determination) will have precedential effect when similar situations arise in the future. These changes are necessary to address Amtrak's practice of providing conflicting answers through different personnel and refusing to recognize precedents.²³³

2. CN's proposed provision to address any unanticipated consistent failure to meet established performance standards should be adopted.

Section II.B explains the legal and economic necessity for a lookback provision to prevent the imposition on a host of net performance penalties, which would, on net, deprive the host of the full incremental cost compensation to which it is entitled. As Professor Willig explains, in a properly structured Operating Agreement the lookback provision does not detract from the host's incentives to perform well, because the availability of positive performance payments, and the threat of those payments being offset by penalties, provide appropriate incentives.²³⁴

However, Amtrak expresses concern that at some future time there could be a sustained period during which penalties are earned under the Operating Agreement resulting in insufficient net performance payments to be used to offset further penalties. To meet that concern, and recognizing that the appropriate structure and intent of the Operating Agreement is to have sufficient incentives so that penalties can always be offset against incentives, CN proposes a new

²³² CN further proposes a three-step escalation procedure, culminating in referral to CN's Senior Vice President, Southern Region, and Amtrak's Vice President Operations, in the event that personnel at a lower level cannot resolve the matter.

²³³ See Ladue/Kuxmann VS at 62-65.

²³⁴ Willig VS at 7-8.

provision requiring that, if CN performance under the Operating Agreement results in penalties for six consecutive months for a train group, the parties will use their best efforts to work together in good faith to determine why, to verify that Performance Payments and Penalties are being properly determined and that only delays within CN's control are being attributed to CN, and to develop remedial measures, including, if appropriate, changes to the Operating Agreement. This provision, which Amtrak attacks even though { [REDACTED] }²³⁵ will help assure that if reasonable expectations under the Operating Agreement are disappointed, giving rise to the possibility that penalties will exceed incentives over a sustained period of time (the concern underlying Amtrak's argument for the elimination of the lookback provision), the parties will investigate why and take remedial action.

3. Changes to the Performance Payment and Penalty provision should be prospective only.

While CN's proposed changes to the Performance Payments and Penalties provisions would improve the Operating Agreement, those provisions should not, as a matter of principle, be changed retroactively, regardless of which party would benefit from such a change. The function of the Performance Payments and Penalties scheme is to incentivize a host railroad's operational conduct. A host railroad cannot respond to an incentive scheme if it does not know

²³⁵ {{ [REDACTED] }}

in advance how its performance will be judged and rewarded,²³⁶ and should not be penalized (or rewarded retroactively) on the basis of rules that were not in place – or even proposed – at the time of the conduct at issue.²³⁷

B. CN’s Proposed Compensation System for Freight Delays Due to Amtrak Should be Adopted.

CN proposes that its base compensation be revised to include the quantifiable fuel, labor, and equipment costs of delays to CN freight trains directly caused by Amtrak’s presence on CN’s lines. This proposed amendment falls short of, but will bring the Operating Agreement closer to providing, full incremental cost compensation. CN’s Opening Submission includes a detailed statement by Michael Baranowski and Benton Fisher of FTI Consulting that explains their quantification of CN’s Amtrak-caused freight delay costs.²³⁸ The methodology they used has two main elements: a determination of freight delays due to Amtrak, relying primarily on CN’s Service Reliability Strategy system (“SRS”), and a quantification of the costs of those delays (largely on a per-hour basis), using standard railroad costing tools and techniques. CN asks the Board to approve this quantification and methodology to use both retroactively and prospectively for determining incremental cost compensation for freight delays due to Amtrak.²³⁹

²³⁶ Amtrak did not make its initial penalties proposal until over two years into this proceeding, and it did not make its alternative proposal until over four years into this proceeding.

²³⁷ This principle is reflected in the constitutional prohibition of ex post facto laws, U.S. Const. Art. I, § 10, Cl. 1.

²³⁸ *See generally* Baranowski/Fisher VS. Baranowski/Fisher also provided to Amtrak and the Board extensive workpapers documenting their methodology.

²³⁹ The methodology CN proposes for use in this proceeding and for inclusion in the next iteration of the Amtrak-CN Operating Agreement is not intended as an unalterable regulatory mandate. As with other aspects of the Operating Agreement, the methodology is designed to fit the particular circumstances of the Amtrak-CN relationship (for example, by making use of CN’s SRS system) and may not be appropriate for other Amtrak agreements. Moreover, CN and Amtrak can make appropriate amendments over time as they gain experience together and as

1. CN's proposal seeks compensation only for a readily quantifiable subset of its full incremental costs due to Amtrak.

As discussed in Section II, CN is, in principle, entitled to be fully compensated for all incremental costs due to Amtrak's presence on its lines, including all costs Amtrak imposes on CN by delaying and otherwise impairing its freight operations. In practice, however, some of those costs are not currently readily quantifiable. CN should be allowed to reserve the right to seek any incremental costs that become quantifiable.²⁴⁰ For now, however, CN seeks recovery only of the direct and readily quantifiable costs of delays to specific freight trains due to Amtrak.

Because of this limitation, CN's immediate request falls substantially short of full incremental cost compensation. As Anne Morehouse, CN's Superintendent of the Regional Operations Center, explained in her testimony, Amtrak imposes costs on CN by consuming CN's scarce line capacity, which costs cannot be readily quantified:

[W]hen line capacity is constrained, Amtrak's presence on our lines makes that capacity partially unavailable for other traffic, thereby increasing CN's costs and delays and decreasing the attractiveness of our freight service. . . . [w]hen capacity is unavailable to CN, the loss impairs our ability to seek and attract new customers, to serve existing customers at optimal levels, and to maintain and improve service. The result over time is reduced business and reduced rates and profits.²⁴¹

As Ms. Morehouse explains, and the Board well knows, capacity is critical to freight railroad operations, and freight rail capacity is increasingly constrained, particularly in and

available data and technology evolve. In particular, as noted below, while SRS is a highly reliable system, CN continuously works to improve it.

²⁴⁰ CN's proposal provides that if and when additional incremental costs due to Amtrak can be quantified, CN will be entitled to recover them. See Exh. 1 at App. IV-7 – App. IV-8.

²⁴¹ Morehouse VS at 3.

around Chicago.²⁴² Moreover, Amtrak is a major consumer of CN's capacity (to which Amtrak has contributed no funding) – it represents about 19% of the train miles on the CN lines on which it runs, but consumes a far higher percentage of CN's capacity due to its preference rights, higher speeds, and variability in operations.²⁴³

The costs to CN of Amtrak's consumption of capacity are real and substantial. They include both (i) costs relating to general operating constraints due to Amtrak (such as sub-optimal freight scheduling and train-length decisions CN needs to make to accommodate Amtrak), and (ii) costs of lost existing or new business or rate suppression due to delays and other impairments of freight service due to Amtrak. As CN's Vice President, Corporate Marketing, elaborated (and substantiated with statements from freight shippers):

[Hosting and providing preference to Amtrak] results in a loss of capacity, delays, decreased reliability, and decreased efficiency for freight traffic. These effects hurt shippers. . . . In addition, scheduling restrictions, train-length restrictions, and delays that increase cycle times make it harder for CN to serve the business we have. The ultimate result for CN is a real and substantial, albeit not generally readily quantifiable, increase in costs and reduction in revenues.²⁴⁴

²⁴² See *Morehouse VS* at 2-6; see also *UP/SP*, 3 S.T.B. at 145 (“[R]ailroads are facing significant capacity constraints and are making major investments to add the capacity and facilities necessary for handling increased freight traffic.”).

²⁴³ See *Morehouse VS* at 6-9; see also *UP/SP*, 3 S.T.B. at 145 (Amtrak’s “use of the freight carriers’ facilities [] could further strain that capacity, require additional infrastructure investment, and impose other substantial costs. We see nothing in the incremental cost standard that would preclude the railroads’ recovery of these costs.”); Mark H. Dingler, et al., *Impact of Train Type Heterogeneity on Single-Track Railway Capacity*, 2009 Transp. Res. Rec. 41, 47 (explaining that “[a]dding passenger trains to a freight-only line . . . creat[es] even greater delays” than adding additional freight trains because “the pertinent characteristics of passenger trains are even more different than the variations among freight trains. Passenger trains have higher maximum speeds, power-to-ton ratios, and dispatching priorities.”); see also *National Rail Infrastructure Capacity and Investment Study* 4-7 (2007) (“Typically, a corridor serving multiple train types will have a lower capacity than a corridor serving a single train type”).

²⁴⁴ *Murray VS* at 1-2.

Those costs are incremental costs which CN should not have to bear without compensation. Insofar as they cannot be quantified for purposes of direct financial compensation, CN should, in principle, be relieved of them by other means. Those means might involve scheduling or performance standard adjustments by Amtrak that reduce the strain it places on CN's capacity and the freight delay costs it imposes on CN, or they might involve investment by Amtrak or its sponsors in infrastructure that would restore some of CN's lost capacity, or they might involve a mixture of solutions.²⁴⁵ To develop a sense of the magnitude of the not-readily-quantifiable costs Amtrak imposes on CN, and inform consideration of those alternatives, CN performed a rigorous modeling exercise to estimate, conservatively, the specific infrastructure (and the costs thereof) that would be required at different levels of service to restore net levels of delay incurred by CN's freight trains to the levels that would prevail in Amtrak's absence.²⁴⁶ The results of that study provide reasonable estimates of the replacement costs of the CN capacity that Amtrak consumes. Depending on the level of service demanded by Amtrak, those costs run into hundreds of millions of dollars.²⁴⁷

²⁴⁵ See Willig VS at 3.

²⁴⁶ See *generally* Krueger/Doyle/Rank VS.

²⁴⁷ CN's modeling of the capacity consumed by Amtrak is necessarily conservative because it was limited to four of the six services, and was based on much lower levels of service than Amtrak is currently requesting from CN. Nonetheless, Amtrak attacks various aspects of CN's capacity modeling. See *generally* Roberts/Williams RVS; see also Vilter/Maga RVS at 35-37. Many of Amtrak's arguments rest on misconceptions of the goals and function of the study. For example, contrary to Amtrak's complaints, CN's use of a baseline without Amtrak, as opposed to a baseline of current operations, was appropriate because the purpose of the study was to quantify CN's incremental costs – the costs it would not suffer in Amtrak's absence. And Amtrak's complaint that that infrastructure investments may not be the most cost-effective means of making CN whole merely reinforces the value CN's study provides in illuminating the choices to be made about how to make CN whole. See *generally* Brief App. Section III.

Through the Board affirming the principle that CN is entitled to full incremental cost compensation, Amtrak will gain a more meaningful appreciation of the full scope and nature of the costs it imposes on CN. CN hopes that with that common understanding the parties can then negotiate an efficient mix of schedule changes, infrastructure improvements, service demands, and compensation that best serves the public interest in both passenger and freight service, including minimizing inefficient costs and losses for Amtrak and CN.

As discussed next, CN's present proposal is focused on the subset of all incremental costs due to Amtrak that can at present be quantified. Even with full compensation for these costs, the exclusion of broader costs due to Amtrak's consumption of CN's capacity still means that, overall, CN's proposal will provide it with far less than full incremental cost compensation.

2. CN's conservative identification of freight delays due to Amtrak.

FTI Consulting used data recorded in real-time in CN's SRS system to identify and quantify Amtrak-caused delays to CN freight trains.²⁴⁸ SRS is a reliable, albeit under-inclusive, source of freight delay data, and FTI Consulting's use of SRS to determine freight delays due to Amtrak was appropriate.

- a. SRS is a reliable, transparent, and conservative source of CN freight train delay data.

CN's extensive evidence shows that SRS is an accurate and reliable source of data for identifying delays to CN freight trains and allocating minutes of such delay among causes. SRS is CN's primary tool for generating the data that drives CN's critical business decisions, and it is designed and maintained to be as accurate and reliable as possible. SRS {{ [REDACTED]

²⁴⁸ The SRS data system was described in detail in the Summerfield/Girard/Morehouse VS.

[REDACTED] }, and automatically creates different types of records with detailed information about trains.²⁴⁹ { [REDACTED]

[REDACTED]

[REDACTED] }.²⁵⁰ { [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] }.²⁵¹ CN's dispatchers then add codes and comments about the delay.²⁵²

Amtrak claims that SRS data “do[] not provide an accurate measure of [freight train] delays.” But its criticisms ignore the rigorous measures CN undertakes to ensure the accuracy of SRS data, the similarities between the SRS system and the eDR system Amtrak employs and advocates for measuring its own delays, and the fact that the quantification of delays based on SRS is inherently conservative since it does not purport to capture relatively short delays.

As CN's witnesses explained, SRS is the “core transportation data system for managing and recording almost all aspects of CN's rail operations.”²⁵³ CN's Operating Department “uses the delay data in SRS on a continuous basis throughout the day” in order to monitor the important metrics by which CN measures the performance of its freight operations.²⁵⁴ { [REDACTED]

[REDACTED]

²⁴⁹ Summerfield/Girard/Morehouse VS at 3.

²⁵⁰ Summerfield/Girard/Morehouse VS at 4.

²⁵¹ Summerfield/Girard/Morehouse VS at 11-17.

²⁵² Summerfield/Girard/Morehouse VS at 17-22.

²⁵³ Summerfield/Girard/Morehouse VS at 2.

²⁵⁴ Summerfield/Girard/Morehouse VS at 2.

[REDACTED]

[REDACTED] }²⁵⁵ CN also uses SRS to measure, calculate, and report critical, publicly available metrics like train speed, dwell, and cars-on-line, on which investors rely.²⁵⁶

Because SRS data are critically important to so many aspects of CN's business, SRS is designed and maintained to be as accurate and reliable as reasonably possible. CN closely monitors SRS and continuously refines its data-generating processes to ensure and improve its accuracy. And to ensure the integrity of the data, CN authorizes and assigns responsibility to just three employees to create, delete, or change the duration of delays generated by SRS.²⁵⁷

Amtrak's criticisms also ignore that SRS is similar to the eDR system that Amtrak uses to record, quantify and assign responsibility for delays to its trains, which the parties use as a basis to determine Performance Payments and Penalties under the Operating Agreement, and which Amtrak promotes as accurate and reliable. The following characteristics of eDR, highlighted by Amtrak's Paul Vilter and Amtrak's Service Standards Manual, are equally true of SRS:

- { [REDACTED] }²⁵⁸

²⁵⁵ Summerfield/Girard/Morehouse VS at 11-12.

²⁵⁶ See <https://www.cn.ca/en/investors/key-weekly-metrics> ("CN provides external audiences industry standard metrics for dwell, train speed and cars on-line to allow consistent comparison of our performance with other Class 1 railroads.").

²⁵⁷ In contrast, the Amtrak OIG faulted Amtrak for "not sufficiently restrict[ing]" Amtrak's many different users from accessing and editing on-time performance and delay reporting systems (including users with active accounts who were no longer employed by Amtrak), "which potentially places the accuracy of the data at risk." Amtrak OIG, *TRAIN OPERATIONS: On-Time Performance Reporting Generally Accurate; Additional Actions Could Enhance Delay Reporting* at 13 (Report OIG-A-2017-007), Mar. 2, 2017, <https://www.amtrakoig.gov/sites/default/files/reports/OIG-A-2017-007.pdf>.

²⁵⁸ Compare Vilter Tr. at 173-74; Amtrak Service Standards Manual at 7-97 (attached as Exh. 29 to Vilter/Maga RVS) (eDR), with Summerfield/Girard/Morehouse VS at 12-13 (SRS).

typically trace the delays to Trains B and C back to Amtrak, even though they would not have occurred but for the initial delay caused by Amtrak.

Finally, SRS is transparent and its data is readily auditable. Vilter/Maga's assertion that SRS is unreliable because it occasionally {{ [REDACTED] }}²⁶² ignores the fact that both parties can readily review, audit, and correct or request corrections to SRS delay records.²⁶³ If CN's proposal is adopted, Amtrak will receive and have the opportunity to audit and query SRS reports daily, further reducing the overall audit burden and making the process more manageable, while at the same time ensuring that the CN delay data used is accurate and reliable.

- b. CN's proposed methodology to identify through SRS and quantify freight delays due to Amtrak is sound and conservative.

The methodology used by FTI Consulting (and proposed by CN going forward) includes a straight-forward three-step process to determine the minutes of delay due to Amtrak. In the first step, {{ [REDACTED] }}

[REDACTED]

²⁶² Vilter/Maga RVS at 30-31.

²⁶³ {{ [REDACTED] }}

[REDACTED]

[REDACTED] }}²⁶⁴ {{ [REDACTED] }}.

In the second step, {{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] }}²⁶⁵ {{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] }}²⁶⁶ The minutes of delay in the remaining delay

records were attributed to Amtrak.

Amtrak makes two unwarranted criticisms of the second step. *First*, Amtrak asserts that all delays coded as “AO” should be removed from further analysis because that code is intended to cover delays to Amtrak trains, rather than delays caused by Amtrak trains.²⁶⁷ This ignores the

²⁶⁴ Summerfield/Girard/Morehouse VS at 18; Baranowski/Fisher VS at 3 n.3.

²⁶⁵ Summerfield/Girard/Morehouse VS at 18. {{ [REDACTED]

}} See Crowley/Mulholland RVS at 8 n.9. {{ [REDACTED]

[REDACTED] }}

²⁶⁶ Baranowski/Fisher VS at 4. {{ [REDACTED]

[REDACTED] }}

²⁶⁷ Crowley/Mulholland RVS at 7-8. Crowley/Mulholland’s misleading argument about miscoded entries echoes an assertion by Vilter/Maga that {{ [REDACTED]

[REDACTED]}²⁷⁰ (Having little else to point to, Amtrak cited 3 of these in its Table 1 “examples.”)

The third and final step was to {{ [REDACTED]

[REDACTED]

[REDACTED]}²⁷¹ {{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]}²⁷²

{{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]}²⁷³

²⁷⁰ {{ [REDACTED]

[REDACTED]}²⁷¹

²⁷¹ Baranowski/Fisher VS at 5.

²⁷² Baranowski/Fisher VS at 5-9.

²⁷³ Baranowski/Fisher VS at 7 n.15 (“allocations of delays . . . are based on the professional judgment of Anne Morehouse, the Superintendent of CN’s Regional Operating Center,” who “oversees and manages all of CN’s freight operations on the subdivisions on which Amtrak operates”); *id.* at 8 n.17 (rejecting alternative allocation method for a “more conservative approach”); *id.* at 9, Table FTI-4 (showing that across the three different allocation methods used by Baranowski/Fisher, the average Amtrak delay was 32, 33, and 29 minutes respectively).

{{ [REDACTED] }}²⁷⁴ However, Amtrak does not dispute that {{ [REDACTED] }}

[REDACTED] }}²⁷⁵ Amtrak also does not propose any alternative allocation methodology for these types of delays. Although, like Amtrak's eDR, perfect precision may not be achievable, the methodology used by CN for determining delay responsibility is sound, transparent, auditable, and conservative, and should be accepted.

3. CN's methodology for determining the costs of delays uses well-established railroad costing tools and techniques.

Train delays caused by Amtrak lead directly to the consumption of CN's productive assets, resulting in increased costs for train crews, fuel, and equipment (including locomotives and freight cars). Those increased costs are incremental: they would not occur but for Amtrak.

FTI Consulting calculated these costs using standard costing tools and techniques and publicly available sources that are consistent with industry practice and the Board's precedents. For example, FTI Consulting used system average costs, as reported in Form R-1, as the Board requires for the derivation of avoidable cost in abandonment proceedings.²⁷⁶ For train crews, FTI Consulting derived wages and constructive allowances from CN's Annual Wage Form A&B, and fringe benefits from CN's Form R-1.²⁷⁷ FTI Consulting derived fuel costs per gallon

²⁷⁴ Crowley/Mulholland RVS at 9-11.

²⁷⁵ Crowley/Mulholland RVS at 11, Table 2. For these four delays, Amtrak provides no evidence that the portion of the delay that was caused by Amtrak was any less than the amount calculated by Baranowski/Fisher.

²⁷⁶ See 49 C.F.R. § 1152.32.

²⁷⁷ FTI Consulting's crew costing methodology is consistent with the Board's acceptance of the parties' agreement to use "Wage Forms A and B as a basis for estimating crew

from CN's quarterly Fuel Surcharge reports filed with the Board, and fuel consumption amounts associated with the additional CN train stops and starts that result from Amtrak's operations were developed using train simulation runs, which have been relied upon by parties in stand-alone cost proceedings.²⁷⁸ FTI Consulting derived locomotive costs from information contained in railroad locomotive run-through agreements, which are a key element of stand-alone cost analyses, and freight car costs from CN's actual car hire rates.²⁷⁹

These well-established costing tools and techniques provide the best available, most objective and most transparent evidence to determine incremental labor, fuel, and equipment costs. Amtrak witnesses Thomas Crowley and Robert Mulholland ("Crowley/Mulholland") criticize this costing on various grounds, but none has merit.

First, Crowley/Mulholland question whether the costs calculated by FTI Consulting constitute "short-run avoidable costs" under the Railroad Accounting Principles Board Final Report.²⁸⁰ As explained in Section II.A, that is the wrong question: the cost measure Congress established for use in proceedings under RPSA § 402(a) is incremental cost understood in the broad, common-sense way necessary to make the host whole – not a narrow, technical, definition of "*short-run* avoidable cost."

compensation" in *Xcel Energy v. BNSF*, Docket No. 42057, slip op. at 68 (STB served June 8, 2004).

²⁷⁸ FTI Consulting's use of a TPC-based fuel burn analysis is consistent with the Board's acceptance of BNSF's fuel cost study based on its Train Performance Model in *West Texas Utilities Co. v. Burlington N. Railroad Co.*, 1 S.T.B. 638, 692 (1996); *see also Ariz. Elec. Power Coop. v. BNSF & UP*, Docket No. 42113, slip op. at 45 (STB served Nov. 22, 2011) (accepting, as the "best evidence of record" an "analysis of fuel consumption broken down for all types of train movements" on the stand-alone railroad's system).

²⁷⁹ Baranowski/Fisher VS at 21-25.

²⁸⁰ Crowley/Mulholland RVS at 12.

Second, Crowley/Mulholland argue that FTI Consulting’s methodology fails to recognize that CN has excess capacity which can absorb the delays Amtrak causes.²⁸¹ Again, they ignore CN’s rights. Excess capacity is a valuable – and increasingly scarce – resource for railroads. Like other railroads (and businesses generally), CN “right sizes” its assets, including purposefully maintaining appropriate capacity in excess of its minimum needs, so that, in the fluid environment in which it competes, it can adjust to both seasonal and unpredictable changes in demand, and both regular and episodic operating difficulties, in a manner that ensures reliable and efficient service to its shippers. CN does not maintain its limited and vital excess capacity by accident, without cost, or (unless Amtrak compensates CN for it) for Amtrak’s benefit. Insofar as Amtrak-caused delays consume some of CN’s capacity, CN must replace that capacity, and the avoidable costs of doing so must be compensated as part of CN’s statutory entitlement to its incremental costs.²⁸²

Third, with respect to crews and locomotives Crowley/Mulholland complain that FTI Consulting have not offered specific evidence that CN must maintain excess crews or locomotives.²⁸³ Again, this argument ignores the fact that CN, like other carriers, right sizes its work force and locomotives based on its current and anticipated operations. If Amtrak believed that despite its industry-leading efficiency CN has been imprudently retaining excess capacity, it was incumbent upon Amtrak to adduce evidence proving its point. But it did not do so.

²⁸¹ See Crowley/Mulholland RVS at 14-16, 25-27, 31.

²⁸² Insofar as Amtrak is suggesting it would be more efficient for CN not to carry its present complement of workers but rather to assign them more overtime, the suggestion should be rejected. In the absence of countervailing evidence, which Amtrak has not presented, CN should be assumed to be carrying the right-sized workforce for its demands, including demands caused by Amtrak. It could be far more expensive for CN to carry fewer workers but rely on more overtime.

²⁸³ Crowley/Mulholland RVS at 16-17; 25-26

Neither is there any basis for Amtrak's insistence that CN must construct an alternative operating plan that attempts to describe in detail which employees and equipment CN would jettison in Amtrak's absence. Such an approach would be far more contentious and less objective than CN's approach, and it would lack the flexibility of CN's analysis to adjust as conditions and demands change. Neither is it necessary. Amtrak demands a level of proof beyond what the Board requires in abandonment proceedings: in that context, a railroad is permitted to pro rate a portion of an employee's or locomotive's cost without having to show it could avoid the entire cost of a full employee or locomotive.²⁸⁴

Fourth, Crowley/Mulholland raise other scatter shot arguments. With regard to labor costs, Crowley/Mulholland objects to FTI Consulting's use of system averages for constructive allowances and fringe benefits on the basis that those allowances and benefits vary with seniority.²⁸⁵ Amtrak would have the Board require CN to demonstrate the specific rates applicable to the particular crew members that were on board the trains that were delayed.²⁸⁶ Amtrak's position is contrary to Board precedent and industry practice using system average costs for fringe benefits and constructive allowances, and would impose an unreasonable and unnecessary burden on CN. Given the volume of delays caused by Amtrak, there is no reason to doubt that system averages are adequately representative of the costs at issue.

With regard to fuel, Crowley/Mulholland claim that "Baranowski/Fisher explicitly acknowledge that {{ [REDACTED] }} that they included

²⁸⁴ See 49 C.F.R. § 1152.32(p) ("The salaries, wages, and fringe benefits of personnel not exclusively assigned to the line segment shall be deemed attributable costs of the segment to the extent they are shown to be apportionable to the segment to be abandoned.").

²⁸⁵ Crowley/Mulholland RVS at 18-20.

²⁸⁶ See *id.*

in the analysis would have occurred regardless of the presence of Amtrak trains,” and that all such stop/starts should have been excluded from the analysis.²⁸⁷ This is a mischaracterization. For each instance in which FTI Consulting attributed a stop/start event wholly or partly to Amtrak, the delay caused by Amtrak was itself sufficient to cause the stop/start event.²⁸⁸ And where stop/start events were attributed to multiple causes, the stop/start costs were allocated in proportion to minutes of delay. If anything, this approach was conservative insofar as non-Amtrak causes to which some stop/start costs were allocated may have been insufficient to cause a stop/start without the Amtrak cause.²⁸⁹

Crowley/Mulholland also assert that FTI Consulting’s analysis failed to account for the potential reduction of fuel costs by operation of Auto Engine Start Stop (“AESS”).²⁹⁰ Crowley/Mulholland suggest that when AESS is installed on a locomotive, it regularly shuts down its engine during meet/pass events in order to conserve fuel that would otherwise be consumed while the train sat idling. Crowley/Mulholland are wrong. AESS would shut down a locomotive’s engine during a meet or pass event. The value of AESS is predominantly in yards and terminals where locomotives are idling waiting for shop or assignment, or are otherwise not attached to a train. When a locomotive is attached to a train, as it would be in every instance of a

²⁸⁷ Crowley/Mulholland RVS at 21.

²⁸⁸ Baranowski/Fisher VS at 15 {{ [REDACTED] }}.

²⁸⁹ Crowley/Mulholland also criticize (at 22 n.39) {{ [REDACTED] }}

²⁹⁰ Crowley/Mulholland RVS at 23-24.

delay attributable to Amtrak, AESS must keep the engine running to meet the demands of the train, including maintaining proper brake pipe pressure, safety systems, and HVAC for crew comfort.²⁹¹

Amtrak also claims that FTI Consulting should have used Wi-Tronix data showing actual fuel consumption rather than TPC-based estimation. Once again, Amtrak demands a level of precision that the Board has not historically required,²⁹² and that is unduly onerous and unnecessary for a reliable cost estimate.²⁹³

With regard to locomotive costs, Crowley/Mulholland object to the use of HPH formula as (i) going beyond “short-run” avoidable costs,²⁹⁴ and (ii) including opportunity costs, in the form of locomotive ownership costs.²⁹⁵ As explained in Section II, those are not valid objections.

Finally, with regard to the costs of CN-owned rail cars, Amtrak objects to FTI Consulting’s use of per diem rates.²⁹⁶ Per diem rates reflect the cost that CN would incur if it

²⁹¹ For example, the EPA’s regulations permit extended idling (*i.e.*, beyond 30 minutes) in order to prevent engine damage, to maintain air pressure for brakes, to comply with other federal regulations, and to permit heating or cooling of the cab. 40 C.F.R. § 1033.115(g). In addition, air start systems on locomotives are notoriously unreliable and a crew would not jeopardize the ability of a locomotive – particularly a remote distributed power locomotive – to restart, as this will cause further delay to the network.

²⁹² See, *e.g.*, *West Texas*, 1 S.T.B. at 692.

²⁹³ While it should not be necessary, CN is able, and willing if required, to demonstrate actual fuel consumption using Wi-Tronix data going forward.

²⁹⁴ Crowley/Mulholland RVS at 27-30.

²⁹⁵ Crowley/Mulholland at 29-30. Crowley/Mulholland assert that Baranowski/Fisher claimed that their cost estimate includes no opportunity costs based on their statement that their analysis “does not include significant opportunity costs.” Crowley/Mulholland misread Baranowski/Fisher, who merely noted that there are significant opportunity costs (such as lost freight revenues) that were excluded (out of necessity) from their analysis.

²⁹⁶ Crowley/Mulholland RVS at 32.

entered the market to add freight cars to absorb the delays caused by Amtrak trains. Those market-based rates²⁹⁷ provide a reasonable and objective measure of cost. And Amtrak offers no better measure.

4. The Board should reject Amtrak's unreasonable, overly burdensome demands regarding costing.

There is a recurring theme in Amtrak's arguments against CN's proposal for compensation for the incremental costs of freight delays Amtrak imposes on it: Amtrak repeatedly makes unreasonable and unnecessary demands regarding the quantification of each element of costing—individual delays, individual employees, and individual pieces of equipment. Amtrak repeatedly objects to the use of average costs, simulations, and market-based proxies – the conventional tools of costing. And it offers no alternative other than an onerous slog through every conceivable individual item of data. Applied to thousands of delays costed by FTI Consulting, that would represent an impractical and unnecessary burden of proof to add perhaps slightly more precision to estimates Amtrak has not shown to be unreliable or biased in any material way. And applied prospectively, supplying that proof would entail huge costs for CN – costs that would, themselves be incremental costs (since CN would only incur them because it is compelled to host Amtrak), but for which Amtrak offers no compensation.

Amtrak's arguments for overly burdensome and unnecessary costing requirements in the name of perfection – perfection that is, in fact, unattainable – should be rejected. Amtrak's goal may be to persuade the Board and/or CN that the whole effort to cost freight delays due to Amtrak is infeasible and that, instead of using FTI Consulting's conservative and reliable

²⁹⁷ *Id.*

methodology to estimate the very substantial incremental costs due to CN, the parties should proceed as if those costs were zero.

CN urges the Board to reject Amtrak's approach. It is inconsistent with the history of the Amtrak-CN Operating Agreement, or other Amtrak operating agreements, which have, for four decades, used a variety of proxies and formulae to estimate, rather than proving individual item by individual item, the host's maintenance-of-way, personnel, and other incremental costs.

Moreover, Amtrak's approach is inconsistent with Board and ICC precedent. In various contexts, the Board appropriately takes a pragmatic approach to assess new cost models (or modifications to established models) that balances accuracy and reliability against the need for usability and practicality.²⁹⁸ Unlike Amtrak, the Board has recognized that it "cannot demand perfection" in considering costing modifications, but rather must assess whether a change represents an "improvement over current costing procedures, and whether such change can be implemented at a reasonable cost and without undue burden on the railroad industry, the shipping public or the agency."²⁹⁹

²⁹⁸ For example, its general purpose costing system "is designed to develop, in a reasonably simple and inexpensive way, reliable cost estimates." *Review of the Gen. Purpose Costing Sys.*, Ex Parte No. 431 (Sub-No. 2), slip op. at 2 (STB served Oct. 1, 1997) ("EP 431(2)"). Likewise, the Board has recognized the need to "balance the costs and other burdens against the degree of precision to be achieved in handling our rate case docket. We have had to sacrifice some accuracy for simplicity where necessary to ensure that our rate complaint processes are accessible to shippers." *Calculation Of Variable Costs In Rate Complaint Proceedings Involving Non-Class I Railroads*, Ex Parte No. 589, slip op. at 6 (STB served Apr. 30, 2002) ("EP 589").

²⁹⁹ EP 431(2), slip op. at 2. See also EP 589, slip op. at 6 ("[w]e understand that precision in rail costing is a desirable goal, but 'the best should not be the enemy of the good [and we should not allow] the infeasible perfect to oust the feasible good.'" (quoting *Pennsylvania v. ICC*, 535 F.2d 91, 96 (D.C. Cir. 1976))).

This reasonable approach is particularly apt in the context of Section 402(a) of the RPSA, which calls for the Board to determine “reasonable” compensation.³⁰⁰ And it is consistent with the approach taken by the Board’s predecessor in the *Conrail* case. In considering a new costing approach for the calculation of incremental maintenance-of-way costs, the ICC stated that it was looking “for a model that is reliable . . . but that is not so cumbersome (by attempting to mimic every possible detail of the real world) as to be practically unusable in a real case.”³⁰¹ Thus, while the ICC would “analyze in depth” a new model or approach to costing, and might require detailed workpapers and information on source data to enable agency staff to test and manipulate the evidence presented, it declined to impose a higher standard of proof or persuasion for such new proposals.³⁰² Moreover, the ICC would expect a party opposing adoption of a new model to substantiate its opposition by, for example, demonstrating a “superior” alternative³⁰³ – something Amtrak has made no attempt to do in this proceeding.

CN urges the Board to follow its precedents and reject Amtrak’s effort to erect unreasonable and unnecessary hurdles to determining the incremental costs attributable to freight delays.

³⁰⁰ See *MTRC*, 354 I.C.C.at 770-71 (“In setting the compensation to be paid by Amtrak for the provision of [a host railroad’s] services and for the use of tracks and facilities, Section 402(a) of the RPSA provides that such compensation be just and reasonable. The term just and reasonable implies the application of good judgment and fairness, of common sense, and a sense of justice to the facts of record.” (citation omitted)).

³⁰¹ *Conrail*, 10 I.C.C.2d at 871-72.

³⁰² *Conrail*, 10 I.C.C.2d at 876, 886-88.

³⁰³ *Conrail*, 10 I.C.C.2d at 876.

5. Compensation for freight delay costs caused by Amtrak should be retroactive.

Amtrak has proposed that Board-ordered changes to the Operating Agreement be imposed retroactively.³⁰⁴ With respect to the Performance Payments and Penalties, CN disagrees with Amtrak because retroactivity would not and could not serve the purpose of such payments.³⁰⁵

With respect to incremental cost compensation, however, retroactivity is consistent with Board precedent,³⁰⁶ and CN agrees it should apply. Amtrak has had ample notice of CN's claim for incremental cost compensation for Amtrak-caused freight delay costs: CN asserted it both prior to and at the outset of this proceeding.³⁰⁷ So Amtrak knew the potential consequences of imposing those costs on CN after the 2011 Operating Agreement expired on August 11, 2013. Moreover, retroactive compensation for incremental costs is necessary to effectuate CN's statutory and constitutional rights.

As detailed in the verified statement of Baranowski/Fisher, CN has quantified the retroactive compensation for its incremental freight delay costs due to Amtrak for the period August 11, 2013 through January 31, 2015 \$4.62 million.³⁰⁸ The incremental costs for

³⁰⁴ Amtrak Opening Statement at 18.

³⁰⁵ See Section III.A.3.

³⁰⁶ See *e.g.*, *Application of the Nat'l R.R. Passenger Corp. Under 49 U.S.C. 24308(a) - Order to Require Serv. & Set Comp. Terms*, FD No. 32911, 1996 STB LEXIS 139, at *4 (STB Served April 29, 1996) ("In prior proceedings, the ICC has found that compensation awards should be tied retroactively to the effective date of the order requiring access.").

³⁰⁷ See, *e.g.*, CN Statement of Disputed Issues (filed Oct. 24, 2013); Sacks VS, Exh. G (CN proposal prior to proceeding).

³⁰⁸ FTI Consulting determined that the incremental cost of CN freight delays due to Amtrak for its Analysis Period of August 1, 2013 to January 31, 2015 was approximately \$4.69 million (rounded down). Baranowski/Fisher VS at 26. For the period August 1 through August 11, when then Operating Agreement was still in effect, FTI Consulting determined that {{ [REDACTED] }}

subsequent delays can and should be determined using the same methodology. As it did during this proceeding, CN would provide detailed data and workpapers to Amtrak to enable it to audit the determination of freight delay costs beginning February 1, 2015.

C. CN's Proposed Schedule for the Illini/Saluki Service and CN's Proposal for Regular Schedule Assessment and Adjustment Should Be Adopted.

1. CN's schedule proposal for the Illini/Saluki service should be adopted.

As discussed in Section I, in response to an Amtrak proposal outside of this proceeding, CN developed new schedules for the Illini/Saluki trains that were presented to Amtrak. CN explained that by redistributing backloaded recovery time and making certain other adjustments, which would only modestly increase the total length of the schedule, those schedules can be expected to raise ASOTP for those trains to 80%.³⁰⁹ Beyond a general dogmatic opposition to any lengthening of schedules, Amtrak offers no substantial rebuttal.³¹⁰ CN's proposed schedule changes should be adopted and incorporated into the Operating Agreement.³¹¹

2. The Operating Agreement should include a process for regular schedule assessment and adjustment.

CN's evidence demonstrated that the base assumptions underlying the schedules for many of Amtrak's services under the Operating Agreement have not been jointly examined by

[REDACTED]

³⁰⁹ Krueger RVS at 7-14.

³¹⁰ See Section I; *see also* Appendix Section I (responding to Amtrak's specific arguments regarding CN's schedule proposal).

³¹¹ CN presented two alternative versions of the Illini/Saluki schedule skeletons – one for before, and one for after, the Short Shunt problem is resolved.

the parties in many years, and that the Operating Agreement lacks an adequate procedure for regular joint schedule review.³¹² Moreover, CN demonstrated that Amtrak's outdated current train schedules contribute to the failure of Amtrak's trains to attain the 80% ASOTP standard to which Amtrak aspires.³¹³

CN therefore proposes a new provision requiring the parties to:

jointly review the schedules for each of the categories of trains listed in Appendix V at least once every five years on a staggered basis, using appropriate modeling and test run techniques, and shall modify those schedules as the review shows to be appropriate.³¹⁴

Amtrak's resistance to adoption of CN's proposed schedule for the Illini/Saluki service and its consistent and arbitrary refusal to consider lengthening schedules underscores the need for this provision.

D. A Three-Year Term With Evergreen Renewal Should Be Adopted for the Revised Operating Agreement.

CN proposes a three-year term for the new Operating Agreement, with an evergreen provision that would allow it to remain in force indefinitely thereafter, subject to cancellation by either party.³¹⁵ That would give the parties a reasonable period to work together without further regulatory litigation, but also a reasonable opportunity to re-negotiate, or to seek Board intervention in the event of an impasse, if the Operating Agreement need to be revised to better serve the public interest.

Amtrak has, instead, proposed a 10-year term. Given the scope and complexity of the issues presented in this proceeding, and the likelihood that many matters will have to be

³¹² Ladue/Kuxmann VS at 33 n.43.

³¹³ See Section I.

³¹⁴ Exh. 1, § 3.2.G.

³¹⁵ See Ladue/Kuxmann SRVS at 47; *see also* Exh. 1, pg. 39 (§ 8.8.A.)

negotiated or adjusted between the parties, that is too long. The parties are more likely to work cooperatively to find constructive solutions to issues if it is understood that recourse to the Board is possible within a reasonable period of time.

[illegible]

IV. AMTRAK’S CONFLICTING PROPOSED MODIFICATIONS TO THE PERFORMANCE PAYMENTS AND PENALTY PROVISIONS OF THE OPERATING AGREEMENT SHOULD BE REJECTED.

Amtrak has offered two alternative proposals to radically alter the Performance Payments and Penalties provisions of the Operating Agreement – its Rebuttal Proposal (discussed in, and attached to, the Vilter/Maga RVS) and its Initial Proposal (articulated most fully in the Sacks VS). While the two proposals are structured differently, they share the stated purpose of establishing 80% ASOTP as a service standard and compelling CN, under threat of huge³¹⁷ contractual penalties, to “minimize” delays Amtrak classifies as HRD.

³¹⁶ Ladue/Kuxmann VS at 53-55.

³¹⁷ Both Amtrak proposals involve eliminating the lookback provision -- an unreasonable and self-serving change which, as CN explains in Section II.B, above, and as Amtrak has previously recognized, would violate CN's legal right to full incremental cost compensation. The elimination of lookback is a central element in both proposals because proposals use unreasonably high performance standards to compel CN through use of penalties, rather than encourage it through use of performance payments.

Neither proposal takes any account of the resulting costs to CN and impacts on its shippers, of performance achieved historically, or of trade-offs on which the parties have previously agreed. Both proposals would compel CN to subsidize Amtrak, either by sacrificing its freight service, without compensation, to “minimize” delays to Amtrak to an unreasonable and unprecedented extent, or by paying Amtrak potentially large contractual penalties that (under Amtrak’s proposal to eliminate the lookback) could reduce CN’s incremental cost compensation, based neither on a negotiated agreement nor on any demonstrated violation of Amtrak’s right to preference. Both proposals should be rejected.

A. Insofar As Not Incorporated into CN’s Proposal, Amtrak’s Rebuttal Proposal Should Be Rejected.

On rebuttal, Amtrak’s witnesses Messrs. Vilter and Maga proposed for the first time, as an alternative to the Initial Proposal Amtrak presented in its Opening Submission, a Rebuttal Proposal that would retain the form of, but radically alter, the current Operating Agreement’s Performance Payments and Penalties provisions.³¹⁸ The Amtrak Rebuttal Proposal purports to retain the current “checkpoint/relief-based system,” but address what Amtrak characterizes as “substantial flaws.”³¹⁹ In particular, Vilter/Maga propose the following modifications:

- Eliminate the lookback provision, so that CN could be required to incur net penalties which would reduce its total compensation below its incremental costs and,

³¹⁸ Vilter/Maga RVS at 37-61.

³¹⁹ *Id.* at 37. Descriptions of how the Operating Agreement currently works refer only to the incentive/penalty provisions applicable to trains operating on the IC Lines. The current Agreement provides a different incentive/penalty system for the GTW Lines, but both CN and Amtrak agree that it should be eliminated and a single system applied to both the IC Lines and the GTW Lines.

potentially, to make net payments to Amtrak while being compelled to host Amtrak;³²⁰

- Establish checkpoints at every Amtrak station and every point at which Amtrak trains enter or leave the CN lines, without regard to the ridership at each station or the distance between stations;
- { [REDACTED] };³²¹
- Replace contractual arrival times with arrival times found in Amtrak's public schedules, eliminating adjustments to those schedules to which the parties previously agreed;
- { [REDACTED] }
- { [REDACTED] }
- Eliminate relief items in the current Agreement that give CN relief for specific kinds of delays beyond CN's reasonable control, and other provisions under which the trip of certain delayed trains will not be counted in determining KOTP, thereby making the HRD definition the sole determinant of whether delays are attributed to CN;
- { [REDACTED] } and
- Increase penalties based on how late trains arrive.

While the resulting proposal retains some of the form of the current KOTP system, it lacks key elements of the substance of such a system. First, it does not allocate responsibility for delays using relief items negotiated by the parties in light of the specific history and operating conditions of the services at issue. Instead, it rewards and penalizes CN based solely on Amtrak's unilateral, one-size-fits-all definition of HRD, which attributes to CN delays beyond its

³²⁰ Under the Amtrak Rebuttal Proposal, CN would in fact make net payments for performance on which CN has historically earned substantial incentive payments. See Ladue/Kuxmann SRVS at 4.

³²¹ See *id.* at 13.

reasonable control. Second, it does not credit CN whenever an Amtrak train completes its run on CN's lines within the scheduled run time for the CN segment; instead, it (i) measures performance against scheduled arrival times, rather than scheduled run times, such that CN's compensation can be adversely affected by delays the train suffers on other hosts prior to reaching CN, and (ii) denies CN credit even for on-time trains when HRD exceeds RTB. In addition, Amtrak's Rebuttal Proposal ignores key negotiated trade-offs between the parties, including concessions made by Amtrak as a condition of allowing additional passenger trains to occupy CN's limited rail capacity, that gave rise to provisions of the current Agreement that Amtrak would eliminate.

Overall, Amtrak's Rebuttal Proposal, like its Initial Proposal, would dramatically and unreasonably raise the standards by which CN's service is measured. It would shorten the schedules and tolerances against which on-time performance is judged, { [REDACTED] [REDACTED] [REDACTED] }. And, in conjunction with its unduly burdensome standards, it would provide for increased penalties and eliminate CN's lookback protection. The inevitable result would be to deprive CN of any reasonable opportunity to earn performance payments, and to subject CN to large penalties unless it subordinates and sacrifices its freight operations to an extent that would be unreasonable and contrary to the public interest.

CN determined the performance payments and penalties it would have earned based on its 2016 performance under Amtrak's Rebuttal Proposal using: (a) the actual schedules that were in place in 2016, and (b) for the City of New Orleans and Illini/Saluki services, the revised schedules Amtrak proposed in February 2017. The following table shows that Amtrak's Rebuttal Proposal would convert performance payments into large penalties:

Service	Amount billed in 2016 ³²²	Amtrak's KOTP-based proposal	Difference
City of New Orleans	{ [REDACTED] }	(\$2,983,848)	{ [REDACTED] }
Illini/Saluki	{ [REDACTED] }	(\$1,709,550)	{ [REDACTED] }
Lincoln	{ [REDACTED] }	\$85,409	{ [REDACTED] }
Texas Eagle	{ [REDACTED] }	(\$75,263)	{ [REDACTED] }
Blue Water	{ [REDACTED] }	\$205,818	{ [REDACTED] }
Wolverine	{ [REDACTED] }	\$101,262	{ [REDACTED] }
Total	{ [REDACTED] }	(\$4,447,449)	{ [REDACTED] }

As the table shows, the net effect of Amtrak's Rebuttal Proposal would be an annual subsidy of { [REDACTED] } that CN would have to pay for the "privilege" of hosting Amtrak, and { [REDACTED] } difference between the amount earned by CN under the current Agreement and Amtrak's Rebuttal Proposal.

As discussed below, these results are driven by the unreasonable and unwarranted nature of Amtrak's Rebuttal Proposal.

1. Amtrak's proposal to eliminate the lookback should be rejected.

As explained in Section II.B, above, the lookback provision is essential to ensure that, over time, a host railroad does not incur net penalties that result in net compensation below the incremental costs to which it is entitled by statute. In the context of a scheme that imposes unreasonably high standards and that is oriented towards generating penalties, as both of Amtrak's proposed schemes for performance payments and penalties are, eliminating the lookback would create a substantial risk of violating that statutory requirement, and could even lead to the host being compelled to make a net payment to Amtrak while also being required to

³²² { [REDACTED] }

host Amtrak – an unreasonable, unprecedented and unconstitutional result. The Board should reject Amtrak’s proposal to eliminate the lookback.

2. Amtrak’s proposal to add checkpoints indiscriminately at every Amtrak station stop should be rejected.

Under the Amtrak Rebuttal Proposal, checkpoints would be established at every Amtrak station stop on the train’s route. This, Amtrak says, would “improve[] ... the chance that CN would be motivated to provide adequate service.”³²³ Amtrak does not substantiate this claim. It presents only a misleading table that compares the percentage of passengers on the six CN-hosted Amtrak services that travel from endpoint to endpoint with the percentage that travel to or from an intermediate station, but its table does not show the percentages boarding or disembarking at individual intermediate stations.³²⁴

If new checkpoints are to be added at intermediate stations, they should be selected based on whether they would be widely enough spaced to define reasonable segments and whether a meaningful number of passengers board or disembark at those points.³²⁵ Acting in accordance with those principles, CN proposes adding checkpoints at Carbondale and Jackson on the City of New Orleans (Trains 58 and 59) and at Champaign on the Illini/Saluki (Trains 390, 391, 392, and 393), provided that the schedules for these trains are appropriately adjusted.³²⁶ Amtrak’s Rebuttal Proposal, in contrast, would result in measurement of performance over unreasonably short segments (such as a 0.9 mile segment on both the Blue Water and Wolverine services), and

³²³ Vilter/Maga RVS at 39.

³²⁴ See Ladue/Kuxmann SRVS at 6-7 (Amtrak’s table “compares apples (riders between one station pair) to oranges (riders, without regard to station pairs, who either originate or terminate at any intermediate station)”).

³²⁵ *Id.* at 7.

³²⁶ *Id.* at 9-12; see also Section III.A.

would cause performance at lightly used stations to weigh as or more heavily in computation of KOTP as that at stations used by large numbers of travelers.³²⁷ The Board should avoid these incongruous results by rejecting Amtrak's indiscriminate identification of checkpoints, and by adopting CN's approach instead.

3. Amtrak's proposal for { [REDACTED] } should be rejected.

The current Operating Agreement establishes a specific number of basic tolerance minutes (that is, "minutes added to schedule arrival time to establish the time by which a train must arrive in order to be treated as 'on time'") for each Amtrak train, varying generally by length of segments between checkpoints.³²⁸

Although the provisions of the current Agreement for tolerance minutes have not been the subject of any disputes between Amtrak and CN, Amtrak proposes to scrap the tolerances set in that Agreement and instead { [REDACTED]

[REDACTED] }³²⁹ Amtrak has presented no evidence to demonstrate that the differing tolerances found in the current Agreement for different checkpoints create a problem, or to support its proposal to { [REDACTED]

[REDACTED] }³³¹ The roles of hosts and Amtrak

³²⁷ *Id.* at 8-9 (demonstrating that for the northbound City of New Orleans train, the 86.2-mile segment from Memphis to Newbern is "worth" 3.9 times as much as the 22.1-mile segment from Homewood to Clark Street (a checkpoint at the end of CN's line, just 2.2 miles from Chicago's Union Station), although ridership at Chicago is over 35 times greater than at Newbern).

³²⁸ *Id.* at 12-13.

³²⁹ Vilter/Maga RVS at 40.

³³⁰ *See* 49 U.S.C. § 24101(c)(4).

³³¹ Ladue/Kuxmann SRVS at 13.

for Amtrak train operations are not the same, and the proportion of delays historically attributed to each are not proportionate, as Amtrak's { [REDACTED] }. Hosts are treated as responsible for a much larger portion of delays – a fact Amtrak emphasizes in other contexts. Moreover, as Ladue/Kuxmann point out, { [REDACTED] }
[REDACTED]
[REDACTED] }³³² Nevertheless, CN agrees with Amtrak that { [REDACTED] }
[REDACTED] } would be appropriate for relatively short segments { [REDACTED] }
[REDACTED] } For longer movements, however (on the City of New Orleans, Illini/Saluki, and Blue Water trains), { [REDACTED] }
[REDACTED] } is more appropriate, and more consistent with Amtrak's own computation of Endpoint OTP reflecting tolerances that vary with the length of the movement.³³³

4. Amtrak's proposal to { [REDACTED] }
[REDACTED] } should be rejected.

{ [REDACTED] }
[REDACTED] [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

³³² *Id.*

³³³ See Final Metrics and Standards at 26 n.16 (adoption by FRA and Amtrak of Endpoint OTP standard under section 207 of PRIIA).

³³⁴ See Operating Agreement, App. V, Table 1.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5. Amtrak's proposal to { [REDACTED]
[REDACTED] } should be rejected.

Under the current Operating Agreement, in addition to the basic tolerance provided at each contractual checkpoint, CN is granted "relief" for certain delays that are deemed to be outside its reasonable control.³³⁶ For some (but not all) of those relief items, CN is only granted relief once and to the extent that the total minutes of such delay exceed "Recovery Time Base" ("RTB").³³⁷ { [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

³³⁵ Ladue/Kuxmann SRVS at 16.

³³⁶ Cf. Hirsh VS, Exh. 131 (Outline, {{ [REDACTED]
[REDACTED] }}, ATK0000329854).

³³⁷ See Operating Agreement, App. V, § A.1.e.

[REDACTED]

[REDACTED]³³⁸

{ [REDACTED] } { [REDACTED]

[REDACTED] }³³⁹ { [REDACTED]

[REDACTED]

[REDACTED]

{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

³³⁸ Ladue/Kuxmann SRVS at 17.

³³⁹ Ladue SRVS at 11.

³⁴⁰ Vilter/Maga RVS, Exh. 28, § A.3.

³⁴¹ Sacks RVS at ¶ 22. {

[REDACTED]
[REDACTED]
[REDACTED] } Ladue/Kuxmann SRVS at 19.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].³⁴³

{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] } The Board should reject Amtrak's proposal.

6. Amtrak's proposal { [REDACTED]
[REDACTED] } should be rejected.

{ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

³⁴² { [REDACTED]
[REDACTED] }

³⁴³ See Final Metrics and Standards at 34-35 (reporting regressions indication that HRD amounted to approximately 67% of total delay at 80% Endpoint OTP). This is also consistent with historical delay data on the CN services. See Ladue/Kuxmann SRVS at 20 (table showing HRD as a percentage of total delay for the 6 CN services ranging from 50.1% to 88.5%)

³⁴⁴ Ladue Kuxmann SRVS at 20.

³⁴⁵ Vilter/Maga RVS at 41; *see also id.*, Exh. 28 at App. V-8 (App. V, § B.4.c).

B. Amtrak's Initial Proposal Should Be Rejected.

The Board should also reject Amtrak's Initial Proposal, which was articulated primarily in the Sacks VS, although it was dictated not by Mr. Sacks's data manipulation, but by the self-serving instructions Amtrak gave him.³⁵⁴ As Mr. Sacks explained, Amtrak instructed him to do two things.

First, Amtrak instructed him to identify, for each service, an HRD level that "correlated" with 80% ASOTP under historical conditions, including existing schedules.³⁵⁵ The resulting "80% Points" have four inevitable characteristics:

(1) They merely describe what occurred under historical conditions. For example, they provide no indication of the HRD levels at which 80% ASOTP would be achieved under revised schedules or if investments were made that reduced non-HRD delays;

(2) They are very low HRD levels, because the existing Amtrak schedules were not designed with the goal or realistic expectation of high ASOTP, and therefore tolerate very little delay if 80% ASOTP is to be achieved;

(3) They vary widely between services – implying dramatically inconsistent notions of what is acceptable performance by CN – because the tolerance for delay implicit in Amtrak's schedules varies widely by service; and

(4) Being derived from "correlation" rather than causation, they do not represent CN HRD levels at which 80% ASOTP would be expected to be achieved even under historical schedules. For example, for multi-host services where CN hosts less than half the route (all

³⁵⁴ See Dubin RVS at 3-5.

³⁵⁵ Sacks VS ¶6.

services except the City of New Orleans and the Illini/Saluki), reducing CN's HRD would not address delays on other parts of the route that preclude the achievement of 80% ASOTP.³⁵⁶

Second, Amtrak instructed Mr. Sacks to design a scheme imposing penalties on CN for HRD above the "80% Points" { [REDACTED]

[REDACTED] }³⁵⁷ That scheme, combined with Amtrak's proposal that CN not be compensated for its freight delay costs, would impose on CN either uncompensated freight delay and other costs (which would inevitably be large, since the very low HRD levels prescribed by the "80% Points" would require extraordinary, expensive measures, including extreme subordination of freight traffic to Amtrak traffic), or even larger penalties. Amtrak has never explained why that would constitute a "reasonable" outcome consistent with the public interest, or one that CN could be expected to consent to in a commercial "agreement," as required by 49 U.S.C. § 24308(a).

1. Amtrak's Initial Proposal is unnecessary.

The ostensible purpose of Amtrak's proposed penalty system is to achieve 80% ASOTP. As demonstrated above, however, if 80% ASOTP is desired, it can be achieved by various means or by a combination of those means, including schedule adjustment, infrastructure, and equipment investment, and improved Amtrak operations. In particular, Section I.C, above, shows that 80% ASOTP could be achieved with modest schedule adjustments, which would impose only moderate costs on Amtrak, CN, and the public. Given that, compelling CN, under threat of large penalties, to incur huge freight delay and other costs to achieve very low HRD levels is unnecessary and unreasonable.

³⁵⁶ See generally Dubin RVS at 5-7.

³⁵⁷ Sacks VS at ¶7; see also Amtrak Opening Statement at 14-15.

2. Amtrak's Initial Proposal fails by its own logic.

Amtrak's proposed system also fails by its own logic in several respects. Most importantly, it is premised on "80% Points" derived based on an alleged historical correlation between HRD and ASOTP, but Amtrak proposes to apply it to a future in which that correlation will not hold. While the parties have not yet agreed on schedule changes, as outlined above, both parties agree that at least the City of New Orleans and Illini/Saluki schedules need to be changed to fit better with an ASOTP goal.³⁵⁸ Self-evidently, a revised schedule that fits better with an ASOTP goal will change the relationship between ASOTP and HRD and lead to better ASOTP at a given HRD level. In other words, as Professor Dubin explains, the "80% Points" on which Amtrak's penalty scheme is premised will be wrong – and likely too low – once schedules are adjusted.³⁵⁹

Amtrak's surrebuttal evidence acknowledges this fundamental problem with its Initial Proposal.³⁶⁰ But Amtrak offers no viable solution. Mr. Maga states that if the schedule revisions Amtrak proposed in January were adopted, "Amtrak would adjust the HRD Thresholds based on such a schedule adjustment (and the HRD Thresholds could increase considerably)."³⁶¹ While he is right to recognize that the "HRD Thresholds" – the linchpin of Amtrak's proposed penalty scheme – would need to be changed if Amtrak's own schedule proposal were adopted, his statement, made nine months after Amtrak made its schedule proposal, offers no indication of

³⁵⁸ See Section I.

³⁵⁹ Dubin RVS at 13-14.

³⁶⁰ See Maga SRVS at 40-41 ("Amtrak recognizes that if the parties agree upon adjustments to the schedules for any of the Amtrak routes . . . such changes could in certain cases impact the relevant Threshold under Amtrak's delay-based system.").

³⁶¹ *Id.* at 41 n.66.

how those new “HRD Thresholds” would be determined or how much higher (or lower) they would be.

Likewise, Amtrak’s proposed contractual “solution” to the problem is hopelessly unprincipled and indeterminate. Amtrak proposes to provide that { [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]}³⁶² This provision includes no actionable process or criteria; it simply amounts to “trust us; we’ll decide if there’s a problem and, if so, how to fix it.” That is not a remotely reasonable commercial term when potentially millions of dollars of penalties are at stake.

Moreover, this is no mere drafting problem. Within the logic of Mr. Sacks’s historical correlation analysis, which is the basis for Amtrak’s proposed “80% Points,” there is no means to determine an appropriate adjustment when schedules change. As Professor Dubin explains, because Mr. Sacks did no more than describe historical HRD and ASOTP data generated under schedules that did not materially change – indeed, he excluded data generated under different schedules because he acknowledged that HRD/ASOTP relationships would not hold across materially different schedules,³⁶³ – his analysis affords no basis to determine how much HRD/ASOTP relationships would change when schedules change, and, thus, no basis to determine appropriate “80% Points” for new schedules, even assuming away every other problem with the Amtrak/Sacks correlation analysis and penalty scheme.³⁶⁴

³⁶² *Id.* at 41.

³⁶³ Sacks VS at ¶ 29; *see also* Amtrak Opening Statement at 13, n.30.

³⁶⁴ *See* Dubin RVS at 11-13.

Nor should those other problems be assumed away. For example, as Professor Dubin explains, Mr. Sacks violates basic statistical principles by (i) failing to transform a proportion (% ASOTP) into absolute terms before using it in a correlation analysis, and (ii) assuming that the relationship between ASOTP and HRD is linear, and then proceeding to extrapolate that relationship far beyond the range of the historical data.³⁶⁵ As a result, his 80% Points are unreliable even as a matter of historical description.

Moreover, Mr. Sacks does not even purport to perform a causation, as opposed to correlation, analysis. For example, he does not attempt to (i) determine the extent to which the HRD/ASOTP correlation he discerns is the product of exogenous factors – for example, weather or (on multi-host routes) delays on other hosts – that affect both HRD and ASOTP, as opposed to reflecting a causal relationship between HRD and ASOTP, or (ii) account for the obvious common-sense reality that the location where delays occur along a route, rather than just the total amount of delay, will affect ASOTP.³⁶⁶ As a result of these compounding flaws, there is no reason to suppose that the “80% Point” HRD levels Amtrak proposes to use as triggers for penalizing CN are even a reasonable approximation of the HRD levels at which 80% ASOTP would be achieved, even assuming no change in schedules and other operating conditions.

As both Professor Dubin and Professor Willig explain, the financial aspects of Amtrak’s “80% Points” proposal are similarly unprincipled. Mr. Sacks derived Amtrak’s proposed penalty rates by inferring CN’s “perceived savings” due to providing Amtrak with inferior service – *i.e.*, CN’s perceived costs of reducing HRD – from an old, two-page summary of cost differentials

³⁶⁵ See Dubin RVS at 20-24.

³⁶⁶ See Dubin RVS at 16-20.

between two periods during which CN achieved different HRD levels.³⁶⁷ He made the wholly implausible assumption that the “perceived” costs of reducing HRD are linear – ignoring the obvious common-sense reality of diminishing marginal returns. (Given a goal of reducing HRD, a rational host will prioritize the most cost-effective means of doing so, with the result that at very low levels of HRD, such as those demanded by Amtrak, its marginal costs of further reducing HRD will be much higher than at higher levels of HRD.) { [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

}³⁶⁸ Finally, Mr. Sacks added arbitrary limits to turn the resulting penalty rate into a penalties and performance payments scheme with vastly greater probability of, and scope for, penalties than for performance payments.³⁶⁹

3. Amtrak’s Initial Proposal is unprincipled and imposes unrealistic and unreasonably burdensome standards.

An even more fundamental flaw in Amtrak’s Initial Proposal derives from the self-serving, unprincipled approach Amtrak takes to the entire Amtrak-CN relationship: Amtrak treats the goal of 80% ASOTP as a duty CN owes to Amtrak, without compensation, rather than as what it properly is: a public interest objective for Amtrak itself to achieve with the available tools, including (but not limited to) commercially reasonable arrangements with CN.³⁷⁰

³⁶⁷ As Professor Dubin explains, the cost estimates Mr. Sacks relies on relate only to FTI, which is a subset of HRD. “Amtrak’s and Mr. Sacks’s approach of treating all HRD the same therefore creates a mismatch between its FTI-reduction-cost-based penalty rates and its scheme applying those penalty rates indiscriminately to total HRD, regardless of its form.” Dubin RVS at 8.

³⁶⁸ See Sacks VS at ¶ 48.

³⁶⁹ See Willig RVS at 20-30.

³⁷⁰ See Section I.A, above.

Amtrak's penalty proposal starkly reflects this approach. By using "80% Points" for HRD that assume no change in schedule and no improvements in infrastructure, equipment, or Amtrak operations, Amtrak proposes that CN be penalized – *i.e.*, required to pay Amtrak – unless CN shoulders the entire burden of enabling Amtrak to achieve 80% ASOTP.

The result is predictable. A goal of 80% ASOTP may be reasonably achievable if Amtrak uses all available tools. As CN has shown, it can be achieved with reasonable schedule adjustments. But placing on HRD reductions the entire burden of achieving 80% ASOTP, particularly in the context of schedules not designed for an ASOTP metric, Amtrak equipment that cannot be safely operated at full speeds, and operations in largely urban areas with heavy crossing rail traffic, over a largely single-line railroad with its own areas of congestion, inevitably leads to a demand for unreasonable and infeasibly low HRD levels.

In their since-invalidated 2010 Metrics and Standards, Amtrak and FRA identified 900 HRD minutes per 10,000 miles as a reasonable national HRD standard, over the strenuous objections of CN and other freight railroads, who contended that 900 HRD was too low and substantially below industry-wide averages.³⁷¹ Those objections have particular force as applied to the CN lines at issue in this case, which are mainly single-track, and include lines running over and through some of the most congested freight and passenger lines in the country in and around the Chicago hub. Thus, if, as Amtrak proposed in 2010, 900 HRD were a reasonable national standard, a reasonable performance standard for the services at issue in this case should be higher.

However, Amtrak's "80% Points" were derived { [REDACTED]

[REDACTED]

³⁷¹ Ladue/Kuxmann RVS at 10.

[REDACTED]³⁷² As a result, as the following table shows, the standards Amtrak proposes for most of the services at issue, including the two main services – the Illini/Saluki and the City of New Orleans – are far below what experience shows is feasible for the specific services (as represented by CN’s historic average monthly HRD during the period June 2011 through July 2015), and far below even Amtrak’s national 900 HRD standard:

	Average monthly HRD (6/11 - 7/15)	Amtrak proposed HRD standard	HRD reduction required to avoid penalties
Blue Water	1017	936	81
City of New Orleans	1103	709	394
Illini/Saluki	1260	432	828
Lincoln	1596	1073	523
Texas Eagle	2083	615	1468
Wolverine	1933	411	1522

As Mr. Krueger explained, the HRD reductions Amtrak’s “80% Point” standards would require would have to come primarily from FTI, because the other types of delay that Amtrak treats as HRD – temporary slow orders, signal malfunctions, maintenance-of-way work blocks – are inherent to and unavoidable on a largely single-track railroad.³⁷³ Krueger also explained how, for some services, meeting Amtrak’s HRD goals would require reductions in FTI to extremely low levels, while for others it would be impossible to meet Amtrak’s proposed HRD levels through reductions in FTI because these other HRD categories already exceed Amtrak’s proposed limits. The following table shows the amount of “allowable” monthly FTI for each service (minutes in parentheses are negative numbers).³⁷⁴

³⁷² See Vilter Tr. at 56:24-57:1; Maga Tr. at 106:5-18.

³⁷³ Krueger RVS at 15.

³⁷⁴ See Krueger RVS at 16, Table 6.

	Average monthly FTI	Average monthly non-FTI HRD	Amtrak proposal HRD	“Allowable” monthly FTI
Blue Water	701	316	936	620
City of New Orleans	525	578	709	131
Illini/Saluki	582	678	432	(246)
Lincoln	701	895	1073	178
Texas Eagle	1146	937	615	(322)
Wolverine	650	1283	411	(574)

Mr. Krueger also converted those thresholds into minutes per train, as shown on the following table.³⁷⁵

	Route miles on CN	Amtrak proposal HRD (minutes per train)	“Allowable” FTI (minutes per train)
Blue Water	158.7	14.9	9.8
City of New Orleans	927.9	65.8	12.1
Illini/Saluki	306.7	13.2	(7.5)
Lincoln	35.7	3.8	0.6
Texas Eagle	35.7	2.2	(1.2)
Wolverine	26.5	1.1	(1.5)
Note: Minutes per train = (HRD / 10,000) * CN route miles			

Amtrak claims that CN can “control” non-FTI HRD and thus would not need to significantly reduce FTI. Amtrak’s evidence in support of this statement is highly misleading: a number of bar charts for which the y axis has been manipulated in order to show allegedly dramatic changes in non-FTI HRD during the experimental period.³⁷⁶ Considering the data without Amtrak’s graphical manipulation tells an entirely different story.

Amtrak also asserts that because CP and UP were able to significantly reduce slow order delays on portions of their system that CN would be able to do the same for the portion of its

³⁷⁵ Krueger RVS at 16, Table 7.

³⁷⁶ Maga SRVS at 32-36.

network used by the Illini/Saluki.³⁷⁷ Amtrak is wrong. Slow order delays are already relatively minimal on the Chicago-Carbondale corridor; during the January 2012 – July 2014 period encompassed by Maga’s workpaper; they amounted to only 106 minutes per 10,000 train miles for the Illini/Saluki service, or about 3.2 minutes per train. Even reducing that number to 0 would not materially affect the ASOTP of the service.

Amtrak’s tables showing different services that (i) experienced lower HRD than the Illini/Saluki did between February and July 2013, and (ii) lower FTI than would be permissible for three of the six services under Amtrak’s proposal, are misleading.³⁷⁸ Those services all operate over different territory, with different levels of infrastructure, and different levels of freight and passenger traffic. It is unreasonable to compare the HRD or FTI levels of a 53-mile triple-tracked line with only 5 station stops (CP’s portion of the Hiawatha service) with a 304 mile single-tracked line with heavy freight and passenger usage and 11 station stops (CN’s portion of the Illini/Saluki service). Similarly, there is no BNSF freight service on a 280 mile portion of the Southwest Chief between La Junta, Colorado, and Lamy, New Mexico, so it is not surprising that service experiences relatively low levels of FTI. BNSF’s 100 mile portion of the Coast Starlight route is double-tracked (and in places triple-tracked), making freight train interference far less likely than on a single-track route like the Illini/Saluki.

³⁷⁷ Maga SRVS at 36-37.

³⁷⁸ Maga SRVS at 27 (table showing host/service combinations with less HRD than the Illini/Saluki during the 2013 experimental period); *id.* at 39 (table showing host/service combinations with FTI “comparable to or less than” the levels of HRD necessary to achieve Performance Payments under Amtrak’s Initial Proposal).

Notably, Amtrak does not include the Illini/Saluki, Texas Eagle, or Wolverine services on its table comparing “allowable” FTI because, as CN showed FTI would have to be negative for those services to meet the HRD levels set in Amtrak’s Initial Proposal.³⁷⁹

CN also described the amount of capacity that would be consumed by Amtrak at the service levels required to approach its “80% Point” standards on the Illini/Saluki and City of New Orleans services by estimating the size of the exclusive operating zone, or “bubble,” that would be required around each of the 6 Amtrak trains that operate in the Chicago-to-Carbondale corridor.³⁸⁰ CN determined that at those service levels, although on average the six Amtrak trains represent approximately 23% of all traffic in this corridor, it would occupy and prevent CN from using CN’s rail lines for 12 to almost 17 hours per day (or between 50 and 70% of the day).³⁸¹ At the levels demanded by Amtrak, it would be impossible for CN to serve its customers.

In sum, Amtrak’s performance demands would, to the extent they are feasible at all, impose excessive, uncompensated costs on CN and severely impair its ability to serve its freight customers. In formulating its proposal, Amtrak paid no heed to those impacts. But the public interest demands a more balanced approach that takes into account the interests of all affected parties.³⁸²

4. Amtrak’s Initial Proposal is unreasonably punitive.

As explained above, Amtrak’s “80% Points” penalty proposal is neither consistent with public interest principles, nor sustainable in the context of schedule revisions even Amtrak

³⁷⁹ Krueger RVS at 14-17.

³⁸⁰ Krueger RVS at 17-23.

³⁸¹ CN responds to Amtrak’s critique of this analysis in Brief Appendix Section IV.

³⁸² *See generally* Willig RVS.

agrees are appropriate, nor internally coherent, nor realistic. But it would serve one function. Just as it would present CN with a “no-win” scenario – either incur massive uncompensated costs to lower HRD to unprecedented levels, or incur massive penalties – it would present Amtrak with a “no-lose” scenario – either ensure that CN provides, for free, unprecedentedly good performance by radically subordinating its freight operations to Amtrak, or ensure that CN pays Amtrak a massive cash subsidy labeled “penalties.”

CN’s evidence summarizes what Amtrak’s proposal would mean in terms of penalties. The numbers in the table below are not disputed; they are derived by applying simple mathematics to Amtrak’s proposal.³⁸³

Service	Sacks Analysis Period (07/2011 – 06/2015)	Retroactive period (08/2013 -06/2017)	Annual Amount at 900 HRD
Blue Water	(\$385)	\$216	\$60
City of New Orleans	(\$17,775)	(\$18,638)	(\$2,652)
Illini/Saluki	(\$25,743)	(\$28,278)	(\$4,284)
Lincoln	(\$922)	(\$818)	\$168
Texas Eagle	(\$2,401)	(\$2,467)	(\$204)
Wolverine	(\$3,078)	(\$3,260)	(\$360)
Total	(\$50,304)	(\$53,245)	(\$7,284)
All dollar amounts in thousands.			

As Messrs. Ladue and Kuxmann explain, if Amtrak’s Initial Proposal were adopted for the period for which Amtrak is seeking retroactive relief – August 2013 to present (for this purpose, through June 2017), CN’s total penalty would be over { [REDACTED] }, meaning that, on net, { [REDACTED] }. Under Amtrak’s Initial Proposal, even if CN achieved, on an annual basis, the (since invalidated) standard of 900 HRD jointly promulgated by Amtrak and

³⁸³ Ladue/Kuxmann RVS at 48-49; *see also id.* at 49-51 (further discussion of penalty amounts).

FRA under Section 207 of PRIIA – which no other Class I host railroad has achieved on average for a single month, let alone an entire year – CN would be forced to host Amtrak for free and pay Amtrak a net amount of approximately { [REDACTED] } per year.³⁸⁴ In other words, the bottom line of Amtrak’s Initial Proposal is that if CN provides Amtrak with unprecedentedly excellent service, sustaining uncompensated harms in the form of freight delay costs and freight service impairment in the process, to the detriment of its shippers, CN would be required to pay Amtrak millions of dollars for the compulsory “privilege” of doing so.

CN’s evidence also addressed what would happen if Amtrak’s Initial Proposal were applied to other hosts on the multi-host services at issue.³⁸⁵ While this proceeding only directly addresses the CN-Amtrak relationship, Amtrak has made clear that it seeks to use this proceeding to establish a precedent and a model for operating agreements with other hosts.³⁸⁶ Amtrak has not asked, or provided any reason, for the Board to discriminate against CN by imposing on its future operations burdensome performance requirements and a punitive scheme that it would not impose on other host railroads, including CN’s competitors. Moreover, for multi-host services, Amtrak determined the performance standards it seeks to impose on a whole-service, not host-specific, basis, and its plan to achieve 80% ASOTP depends, on its own terms, on imposing the same standards on the other hosts.

³⁸⁴ Ladue/Kuxmann RVS at 10.

³⁸⁵ *See generally* Ladue/Kuxmann RVS at 49-51.

³⁸⁶ National Railroad Passenger Corporation’s Reply to Petitions to Intervene and Comments at 4 (Feb. 28, 2014).

As CN showed, applying Amtrak’s proposal to the other hosts – including, for consistency’s sake, Amtrak itself insofar as it hosts its own multi-host services – would result in huge penalties for those other hosts, based on their historical performance:³⁸⁷

Service	Host Railroad	Sacks Analysis Period (07/2011 – 06/2015)	Retroactive period (08/2013 -06/2017)	Annual Amount (At 900 HRD)
Blue Water	Amtrak	\$387	\$427	\$38
	MI DOT	(\$49)	\$66	\$8
	NS	(\$377)	(\$363)	\$15
Lincoln	UP	(\$2,177)	(\$6,399)	\$1,096
Texas Eagle	BNSF	(\$8,590)	(\$5,644)	(\$738)
	UP	(\$84,155)	(\$84,230)	(\$6,462)
Wolverine	Amtrak	(\$4,094)	(\$4,505)	(\$1,409)
	MI DOT	(\$9,180)	(\$13,183)	(\$1,907)
	NS	(\$5,396)	(\$5,286)	(\$555)
All dollar amounts in thousands.				

On the Wolverine, for example, Amtrak itself would be subject to over \$4.5 million in penalties during the period for which it is seeking retroactive relief. On the same service, historical HRD levels on the portion of the route hosted by Michigan DOT (which CN understands is also operated by Amtrak) would result in over \$13 million in penalties. And Union Pacific’s portion of the Texas Eagle service would be subject to \$84 million in penalties. Even if they reduced their HRD levels to 900, UP would be subject to over \$6 million in annual penalties for its portion of the Texas Eagle service, and Amtrak and Michigan DOT would be subject to over \$3 million in annual penalties for their performance on the Wolverine service.

Amtrak’s proposal fails the Golden Rule test: Amtrak would never accept that its performance as host should be subjected to the same unreasonable standards, and to the same unjustified penalties, it asks the Board to impose on CN. It is contrary to the public interest. It

³⁸⁷ Ladue/Kuxmann RVS at 50.

would impose huge, uncompensated and unreasonable burdens on CN and, if applied consistently, on the entire freight rail industry. And, it is inconsistent with the RPSA, which requires a reasonable commercial agreement between CN and Amtrak under which Amtrak pays at least CN's incremental costs³⁸⁸ – not a one-sided scheme under which CN has to serve and make net payments to Amtrak. The compelled subsidy Amtrak proposes in the form of its proposed penalty scheme has nothing in common with a reasonable commercial agreement. Instead, it is an expropriation that would raise serious constitutional concerns while at the same time doing untold damage to the freight industry and the public interest it serves.³⁸⁹ Amtrak's unprincipled, Initial Proposal should be rejected.

CONCLUSION

The Board has been presented with only one reasonable proposal for modification of the Operating Agreement – CN's proposal. Accordingly, CN respectfully requests that the Board order the parties to execute an Operating Agreement in accordance with CN's proposed changes to the current Agreement, and reject the modifications to the current Agreement proposed by Amtrak (except insofar as adopted as part of CN's proposed changes).

CN should be compensated for its incremental freight delay costs with retroactive effect. CN respectfully requests that the Board approve the methodology used by CN to determine such costs, and order Amtrak to pay (i) \$4.62 million, plus interest for the period August 12, 2013 (expiration of the Operating Agreement) to January 31, 2015, and (ii) the amount determined by

³⁸⁸ See 49 U.S.C. § 24308(a)(3) (“Amtrak’s right to use the facilities or have the services provided is conditioned on payment of the compensation.”); 49 U.S.C. § 24308(a)(2)(B) (referencing as a floor to that compensation “the incremental costs of using the facilities and providing the services”).

³⁸⁹ See Willig RVS at 6-8.

CN using that methodology for the period February 1, to the effective date of the Board's order, subject to Amtrak's right of audit.

Other changes to the Operating Agreement should be prospective only. CN respectfully requests that the Board adopt its proposed changes to the Performance Payments and Penalties provisions of the Agreement. In addition, CN has proposed revised schedules for the Illini/Saluki Service (Trains 390, 391, 392, 393) (with separate sets of schedules to apply depending upon whether the Short Shunt problem regarding Amtrak's Horizon/Amfleet equipment is resolved). CN requests that the Board order the parties to adopt those schedules, and to negotiate in good faith similar adjustments to the schedules for the City of New Orleans service.

Alternatively, should the Board decline to fully resolve the issues presented, in order to provide guidance to the parties so they may resolve outstanding issues through negotiations, CN requests that the Board, at a minimum, clarify and rule as follows:

1. Under the incremental cost compensation standard of 49 U.S.C. § 24308(a), CN is entitled to compensation for all avoidable costs due to Amtrak's use of its lines (*see* Section II.A (CN is entitled to all incremental costs); Section II.C (rebutting Amtrak's arguments for exceptions)), including for its full incremental costs related to delays of its freight trains (*see* Section II.D).
2. The lookback provision of the Operating Agreement shall be retained in order to assure that over time, net of Performance Payments and Penalties, CN does not receive less than incremental cost compensation (*see* Section II.B).
3. Performance Payments and Penalties shall be determined by a KOTP system which (i) focuses on CN's individual performance; (ii) credits CN when the Amtrak trains it hosts

complete their trip on CN within the agreed run-time on CN's lines plus applicable tolerances and relief items; (iii) does not penalize CN for delays beyond its reasonable control; and (iv) affords CN a reasonable opportunity to earn net performance payments (see Sections III.A and IV).

4. Subject to further Board oversight as may be required, the parties shall negotiate and modify Amtrak's schedules as follows:
 - a. Before adopting any additional checkpoint locations to measure CN performance for incentives and penalties on the Illini/Saluki Service or the City of New Orleans service, schedules shall be modified in order to provide reasonable recovery time for those locations.
 - b. Until such time as the Short Shunt problem involving Amtrak's Horizon/Amfleet equipment used on the Illini/Saluki service is resolved, additional time shall be included in the schedules for that service to offset slow orders imposed for the safe operation of those trains.
 - c. Insofar as Amtrak seeks to increase the on-time performance of an individual service, the parties shall seek a cost-effective means of doing so, including weighing the costs and benefits of increases in the schedule length for that service.

Respectfully submitted,

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APPENDIX

I. RESPONSE TO AMTRAK'S CRITICISMS OF CN'S SCHEDULE ANALYSIS AND PROPOSALS

CN's opening submission demonstrated that (i) PRT for the City of New Orleans and Illini/Saluki services is insufficient given the consists that Amtrak typically operates on those services,¹ and (ii) backloaded recovery time and other schedule design issues prevented those services from achieving Amtrak's stated performance goals.²

CN's rebuttal submission described CN's proposal to update the schedules for the Illini/Saluki schedule to (i) include sufficient PRT time, (ii) reallocate and adjust recovery time, and (iii) while the Short Shunt problem remains, add time to the schedule to reflect the additional run time it requires.³ Based on historical performance, CN demonstrated that its proposed schedule changes could increase ASOTP to above 80% for the Illini/Saluki service.⁴ CN also offered to develop revised schedules in a similar manner for the City of New Orleans service.⁵

In its rebuttal evidence, Amtrak criticized CN's evidence regarding PRT.⁶ In its surrebuttal evidence, Amtrak criticized CN's Illini/Saluki schedule proposal, arguing that (1) lengthening the Illini/Saluki schedules, as CN proposes, would have various negative effects

¹ Krueger/Doyle/Rank VS at 36.

² Ladue/Kuxmann VS at 38-42.

³ CN's proposal includes alternative schedules – both schedules with added time (about 12 minutes) to address the Short Shunt problem and shorter schedules that would apply once or insofar as the Short Shunt problem is resolved and the Short Shunt-related slow orders are lifted. Ladue/Kuxmann RVS at 25-25; *see also* Ladue/Kuxmann SRVS at 41; Exh. 1 App. II “Amtrak Passenger Schedules.”

⁴ Krueger RVS at 13.

⁵ Krueger RVS at 3.

⁶ *See* Williams/Roberts RVS at 70-77; Vilter/Maga RVS at 64-68; Fishman RVS at 3-17.

on Amtrak's ridership, revenue, operations, and costs, and (2) CN's scheduling assumptions, inputs, and analysis are flawed.⁷ Amtrak fails to demonstrate any significant negative impacts, much less show that they exceed the substantial benefits CN's proposal would provide by dramatically improving the Illini/Saluki service's ASOTP. Moreover, Amtrak's methodological criticisms are unfounded.

A. Amtrak Fails To Demonstrate That Any Significant Negative Effects Would Flow From The Modest Lengthening Of Illini/Saluki Schedules CN Proposes, Much Less That They Outweigh The Benefits Of That Proposal.

1. Amtrak has not demonstrated negative effects on ridership and revenue; indeed, such effects could well be positive.

Amtrak claims that CN's Illini/Saluki schedule proposal would "dramatically" lengthen the schedules and cause a "detrimental impact" on Amtrak and its passengers.⁸ However, despite making major investments in tools and models designed for calculating how changes in OTP and trip time affect revenues and ridership,⁹ Amtrak failed to quantify the effect of CN's proposal on Amtrak's ridership and revenues.

CN's proposal entails a trade-off between likely passenger preferences: presumably, passengers prefer shorter schedules, but they also prefer more reliability (as reflected by higher ASOTP). CN has shown that, based on historical performance, its proposal schedule "could increase ASOTP by almost 50 percentage points . . . to an average of 82.9% for the Illini/Saluki

⁷ See generally Maga SRVS at 4-22.

⁸ Maga SRVS at 4-5.

⁹ {

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service.”¹⁰ As elaborated below, the “price” of that dramatic improvement would be a relatively modest increase (about 8% on average) in scheduled run time. And the changes in actual run time, if any, would be much smaller.

Currently, the Illini/Saluki fails to achieve its scheduled run time most of the time. For example, in 2016-2017, 52.4% of Illini/Saluki trains reached their endpoint more than 30 minutes late. Amtrak’s current schedules may therefore promise a short run time, but they do not deliver it. Amtrak’s passengers do not benefit from promises that Amtrak fails to keep. They would likely prefer more realistic schedules, which may have longer **scheduled** run time but not significantly longer **actual** run time, and which can deliver far higher ASOTP.

In any event, Amtrak exaggerates by characterizing CN’s proposed schedules as “substantially lengthen[ed].”¹¹ Amtrak relies on an apples-to-oranges comparison: it compares the longer version of CN’s proposed schedules, which includes time added to reflect the speed restrictions currently in place because of the Short Shunt problem, with Amtrak’s existing schedules, which Amtrak has never revised to reflect the reality that the Short Shunt problem adds about 12 minutes to actual run time. To identify the effect of CN’s proposal, as opposed to the effect of the Short Shunt problem, the proper comparison is between Amtrak’s current schedules and the shorter schedules CN proposed for application once the Short Shunt problem is resolved (which Amtrak could do immediately, by changing the equipment it uses on the Illini/Saluki service). On that basis, for Trains 390 and 391, CN’s proposal would add just 20 minutes (or 6.1%) to a 330-minute schedule, and for the Illini/Saluki as a whole, it would add

¹⁰ Krueger RVS at 13.

¹¹ Maga SRVS at 4-5.

just 8.1% to the schedules.¹² That modest increase is a small price to pay for increasing expected ASOTP to over 80% – about 50% higher than it is currently. And even with that increase, the Illini/Saluki schedules would still not be long relative to their mileage. As the following table shows,¹³ under CN’s proposed schedules, the Illini/Saluki service would have higher average scheduled speeds than most Amtrak corridor services.

¹² Even if the 12 minutes needed to address the Short Shunt problem were included in measuring the overall increase in schedule length, on average for the four trains it would result in an increase in total schedule time of just 11.8%. See Krueger RVS at 14 n.21.

¹³ See Ladue/Kuxmann VS at 40-41 for the original table and an explanation of its methodology.

Service	Total schedule time (mins)	Estimated Dwell Time (mins)	Estimated Run Time w/o Scheduled Dwell	Average Distance (Miles)	Scheduled miles per hour	Scheduled miles per hour (w/o dwell)
IL Zephyr/Carl Sandburg	263	16	247	258	58.9	62.7
Hiawatha	91	6	85	86	57.0	61.1
New York - Albany	151	9	142	142	56.4	59.8
Illini/Saluki (current)	330	12	318	309	56.2	58.3
Piedmont	191	12	179	173	54.5	58.2
San Joaquin	350	24	326	315	54.0	57.9
New York - Niagara Falls	535	40	495	461	51.7	55.9
Carolinian	564	44	520	479	51.0	55.3
Heartland Flyer	238	10	228	206	51.9	54.2
Pennsylvanian	557	65	492	444	47.9	54.2
Lincoln	333	17	316	284	51.2	54.0
Maple Leaf	553	41	512	460	49.9	53.9
Illini/Saluki (proposed)	357	12	345	309	51.9	53.7
Missouri River Runner	340	16	324	283	49.9	52.4
Blue Water	392	18	374	319	48.9	51.2
Wolverine	380	21	359	304	48.0	50.9
Cascades	278	20	257	218	47.0	50.8
Downeaster	173	21	152	128	44.2	50.2
Capitol Corridor	159	18	140	114	43.1	48.8
Pacific Surfliner	269	35	234	188	41.8	48.0
Ethan Allen	337	34	303	241	43.0	47.7
Adirondack	483	46	437	332	41.3	45.6
Vermont	566	64	502	379	40.2	45.3
Pere Marquette	250	6	244	176	42.2	43.3
Hoosier	305	8	297	196	38.6	39.6
Overall average	337	25	312	271	48.7	52.5

Amtrak nonetheless asserts that CN’s proposed schedules “would dramatically alter the marketing and customer service landscape for the Illini/Saluki service” because run times under the new schedules between Chicago and Carbondale “would be more than an hour longer than

driving.”¹⁴ It claims that trip times one hour longer than drive times “would substantially undermine the public value and market competitiveness of Amtrak’s Illini/Saluki service.”¹⁵

Amtrak’s premise is misleading, and its conclusion is unsupported.

First, even in their longer versions (including the extra minutes added because of the Short Shunt problem), the schedules CN proposes for three of the four Illini/Saluki trains are less than an hour longer than the 311 minutes drive time Amtrak cites from Google Maps.¹⁶

Second, as Amtrak emphasizes elsewhere, most passengers do not travel the entire 309 miles of the Illini/Saluki route. For passengers traveling shorter distances, the margin between Amtrak schedules and drive times will generally be shorter. For example, for travelers between Chicago and Champaign, or between Champaign and Carbondale, the scheduled time for Train 391 under CN’s proposal would be within 15 minutes of Google Maps’ estimated driving time.¹⁷

Third, and most important, Amtrak provides no evidence to support the notion that a one-hour difference between scheduled run time and Google Maps’ estimate of driving time has a decisive effect on its ridership and revenues. One hour is an arbitrary benchmark – an hour’s difference in a short trip might be critical, but an hour’s difference in a trip, such as Chicago-Carbondale, that is over five hours by car (not including stops for gas, or for a break from the long drive) may be insignificant, especially if the traveler could work for six hours on the train but could not work for five hours while driving. Moreover, the particular Google Maps driving

¹⁴ Maga SRVS at 7.

¹⁵ *Id.*

¹⁶ *Id.* at 7 n.14. CN’s longer proposed schedules are 362 (Train 390), 362 (Train 391), 384 (Train 392) and 369 minutes (Train 393) minutes long.

¹⁷ Google Maps’ estimate for Chicago-Champaign is 144 minutes; CN’s longer schedule for Train 391 from Chicago to Champaign runs 158 minutes. Google Maps’ estimate for Champaign-Carbondale is 186 minutes; CN’s longer schedule for Train 391 from Champaign to Carbondale runs 201 minutes.

time estimate Amtrak used may be significantly shorter than the actual driving time a traveler would confront given traffic, depending on the day and time of travel.

Amtrak's criticisms of the length of CN's proposed schedules are also undermined by Amtrak's own scheduling practice. As the following table shows, many Amtrak corridor services have scheduled run times that exceed Google Maps' estimate of driving time by substantially more than an hour, and by higher percentages than CN's proposed schedules for the Illini/Saluki.

Amtrak corridor service	Endpoints	Driving duration (minutes)¹⁸	Average Amtrak schedule (minutes)	Difference from drive time (minutes)	Difference from drive time (percentage)
Maple Leaf	New York - Toronto	476	778	302	63.4%
Adirondack	New York - Montreal	363	643	280	77.1%
Vermont	Washington – St. Albans, VT	548	772	224	40.9%
Carolinian	New York - Charlotte	590	811	221	37.5%
Pennsylvanian	New York - Pittsburgh	356	554	198	55.6%
Cascades	Portland - Vancouver, BC	322	498	176	54.7%
Niagara Falls	New York - Niagara Falls	395	539	144	36.5%
San Joaquins	Bakersfield - Oakland	240	370	130	54.2%
Missouri River Runner	St. Louis - Kansas City	216	340	124	57.4%
Hoosier	Chicago - Indianapolis	174	297	123	70.7%
Wolverine	Chicago - Pontiac	269	380	111	41.3%
Blue Water	Chicago – Port Huron	298	392	94	31.5%
Pere Marquette	Chicago – Grand Rapids	166	250	84	50.6%
Lincoln	Chicago - St. Louis	259	333	74	28.6%
Capitol Corridor	Sacramento - San Jose	117	191	74	63.2%
Ethan Allen	New York - Rutland, VT	271	331	60	22.1%
Illini/Saluki (proposed)	Chicago - Champaign	311	369	58	18.6%

¹⁸ Drive times are calculated as Amtrak did, by using Google Maps estimates between service endpoints; average schedule times are calculated from Amtrak's published schedules.

Finally, in addition to its vague and unsubstantiated claims about “lengthening” the schedules, Amtrak raises one more specific concern regarding CN’s proposal: it asserts that CN’s proposed schedules for the two northbound trains would disrupt scheduled connections with other trains in Chicago.¹⁹ Amtrak, however, has provided no reason why this concern cannot be addressed by adjusting the departure times for those two trains in order to accommodate connections.

2. Amtrak has not demonstrated any adverse impacts on its operating costs.

Amtrak asserts that adopting CN’s schedule proposal would “substantially disrupt Amtrak’s train crew assignments and equipment turn schedules.”²⁰ This complaint suffers from the same fundamental flaw as Amtrak’s arguments about ridership and revenue. Short existing schedules do not save time for anyone or anything – passengers, crew or equipment – insofar as they are not reliably met in practice.

Amtrak also asserts that CN’s proposed schedules would create tighter crew and equipment turn windows.²¹ Again, however, it fails to elaborate, or to prove that that would entail significant additional costs, given current operating realities. A tight window is not a problem if a train is on time, and more trains would be on time under CN’s proposal. In any event, Amtrak has not shown that such issues cannot be addressed by changing departure times, and CN is willing to work with Amtrak on potential changes to meet its needs.

¹⁹ Maga SRVS at 7.

²⁰ *Id.* at 6.

²¹ Maga SRVS at 6.

Finally, Amtrak claims it will incur additional fuel, hourly labor, and “other operational” costs due to the longer schedules.²² Again, those costs may arise only to the extent that actual run time – not merely scheduled run time – increases, and insofar as CN’s schedules make operations more reliable and predictable, that may create countervailing cost savings. In any event, despite the tools at its disposal,²³ Amtrak again fails to elaborate or quantify the alleged additional costs, or demonstrate that they would be greater than the benefits to Amtrak and its passengers of improved ASOTP.

B. Amtrak’s Criticisms Of CN’s Scheduling Assumptions, Inputs, And Calculations Are Meritless.

1. Amtrak Fails To Show That CN’s Pure Run Time Calculations Are Flawed.
 - a. CN’s Train Performance Calculator Is Public And Was Provided to Amtrak.

CN calculated the appropriate Pure Run Time (“PRT”) for each Amtrak train using a Train Performance Calculator (“TPC”). A TPC is a computer program that (i) precisely models the physics of the movement of a single train over a piece of track, (ii) calculates time, distance, and speed values for the train as it moves over that track, and (iii) produces a table of information containing the train’s speed and time at regular intervals as it moves over the track. It is used by CN to develop train schedules and service plans. It is, in essence, a sophisticated calculator.

²² *Id.* at 6-7.

²³ *See* note 9, *supra*.

One of the inputs to a TPC is the formula for resistance to rolling motion, which is modeled by the well-known and widely used formula called the Davis equation. CN's TPC uses a modification to the Davis equation that is also well known throughout the railroad industry.²⁴

Amtrak claims that it was "difficult . . . to discern from the workpapers how the CN version of the Davis equation . . . was derived" because CN's workpapers "do not reveal how CN's TPC may differ from commercially available versions," and that "CN does not make its TPC available to the public."²⁵ That is false. The modification to the Davis equation used by CN is publicly available, and it was provided to Amtrak (and the Board) in CN's workpapers.²⁶ Amtrak therefore had ample opportunity to offer substantive criticisms of CN's use of TPC, or to submit its own calculations of PRT. It did neither, and CN's use of TPC, and the PRTs calculated by it, stands unrebutted.

b. CN made appropriate base consist assumptions.

One of the other important inputs to a TPC is information about the train's consist characteristics (such as tractive effort, weight, length), which varies by the number and type of locomotives and the number and type of trailing cars. Amtrak criticizes the assumptions used for Amtrak's trains in CN's calculations of PRT. CN calculated PRT using a base consist of 1

²⁴ See, e.g., AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION, AREMA MANUAL FOR RAILWAY ENGINEERING at 16-2-4 to 16-2-9 (1999); Tractive Effort and Train Resistance, *available at* <https://www.scribd.com/doc/281070303/Tractive-Effort-and-Train-Resistance>; The Application of the Davis Formula to Set Default Train Resistance in Open Rails, *available at* http://www.elvastower.com/forums/index.php?app=core&module=attach§ion=attach&attach_id=82501.

²⁵ Williams/Roberts RVS at 70-71.

²⁶ See workpaper "TPC Manual (notes)" at page 2 (providing the Davis equation and coefficients used by CN's TPC) (included in the folder "Manuals, TT's, etc" with workpapers supporting Krueger/Doyle/Rank VS).

locomotive and 7 Horizon/Amfleet cars for the Illini/Saluki service, and 1 locomotive and 9 Superliner cars for the City of New Orleans service.²⁷ Amtrak claims that CN should have instead assumed just 4 cars for the Illini/Saluki, and just 7 cars for the City of New Orleans.²⁸

However, CN's approach is consistent with Amtrak's own recommendations for calculating PRT using a TPC. Amtrak recommends finding the most commonly used consist on a service and then adding one or two cars "so that extra cars can be operated without adversely affecting the performance of the train."²⁹

For the City of New Orleans, CN identified the 1+7 consist as being the most frequently used, and added two cars so that those extra-long trains (which CN determined were regularly used by Amtrak) could be "operated without adversely affecting the performance of the train."³⁰ That assumption comports not only with Amtrak's recommendations, but also with the Operating Agreement, which specifies the 1+9 consist as the "base consist" for the City of New Orleans.³¹

²⁷ Krueger/Doyle/Rank VS at 36 n.33. CN also explained why it used a different consist for the TPC runs that were used for purposes of the capacity modeling. See Krueger RVS at 5 n.9.

²⁸ Williams/Roberts RVS at 72-75; Maga SRVS 14-16; Williams/Roberts SRVS at 3-4.

²⁹ Art of Scheduling at 4 (Hirsh RVS Exh. 67) ("Each train has a published 'normal' consist, and while this establishes a good base for building a power to weight ratio, it should not be used as an average train. Additional cars may be required and, therefore, every time a car is added beyond the 'normal' consist, it could adversely affect the power to weight ratio. It is good practice to allow for one or two additional cars in building a schedule so that extra cars can be operated without adversely affecting the performance of the train.").

³⁰ See Krueger RVS at 5 (describing decision to include a 1+9 consist for the City of New Orleans in order to "permit[] Amtrak to run a train of this size with no adjustment to PRT in its schedule, which, in fact, it sometimes does.").

³¹ See Operating Agreement, Appendix V, Table 3 (page App. V-17). If and when Amtrak and CN undertake a thorough review and revision of the City of New Orleans schedules, CN is willing to work with Amtrak on selecting the appropriate consist to use for purposes of setting the PRT for the revised schedules.

For the Illini/Saluki, the Operating Agreement specifies a 1+6 “base consist,” but CN determined that in practice, a 1+7 consist is used almost invariably. Amtrak now states, for the first time, that its preferred consist is 1+4. But that newly stated preference does not reflect operational reality, and due to the axle requirements imposed for safety reasons because of the Short Shunt problem, Amtrak is not permitted to operate Illini/Saluki trains with fewer than 7 cars.³² It was, therefore, entirely appropriate for CN to assume a 1+7 consist, which reflects normal operations.³³

- c. CN used the correct route through Memphis for the PRT calculations of the City of New Orleans service.

Amtrak asserts that CN’s TPC simulation “could not model the approximately 17-mile stretch of track that Amtrak uses to access Amtrak’s passenger station in Memphis” and alleges that CN’s PRT calculations for the City of New Orleans were based on a “fictitious simulation used by CN to replicate Amtrak service through Memphis.”³⁴ Amtrak is wrong. As the workpaper containing the TPC results that were used in CN’s calculation of PRT shows, CN not only could, but did, use the actual Amtrak route and speeds through Memphis.³⁵

³² If and when the minimum axle requirement is lifted and Amtrak is permitted to operate its preferred consist, it may be appropriate at that time to recalculate PRT using a shorter consist.

³³ See ATK0000359197 [HC] (Hirsh RVS Exh. 54){ { [REDACTED] };
see also ATK0000239516-18 [HC] (Hirsh RVS Exh. 53) { { [REDACTED] } }.

³⁴ Williams/Roberts RVS at 76.

³⁵ Williams/Roberts appear to confuse the TPC calculations used for the RCM modeling (which did use a different route through Memphis) with the TPC calculations used for purposes of calculating an appropriate PRT (which used Amtrak’s actual route). See workpaper “DRAFT - Potential Amtrak Schedules v5c.xlsx” (tabs “058 – A,” “059 – A,” and “TPC's Chi-Nor”) provided with the Krueger/Doyle/Rank VS.

- d. CN made appropriate assumptions regarding delays at interlockings.

For purposes of calculating PRT for the Illini/Saluki, CN followed its standard approach for setting PRT for VIA trains in Canada, and assumed that each Amtrak train would slow to a stop and then immediately restart without delay at each interlocking on its route. Amtrak criticizes CN for this assumption, asserting (without supporting documentation) that doing so adds 3 minutes of PRT per interlocking, for a total of 15 minutes of alleged “excess” PRT.³⁶

Amtrak’s calculations are wrong. Amtrak’s argument erroneously assumes that its trains could continue at maximum track speed of 79 mph through each interlocking. In reality, however, the train would have to slow down to the maximum authorized speed at each the interlocking, which is generally much lower than 79 mph.

CN’s calculations, which correctly assume the train slows to the appropriate speed through the interlocking, show that the assumed train stops add about 1 minute of run-time per interlocking, for a total difference of 5.3 minutes for the southbound trains (Trains 391 and 393) and 5.6 minutes for the northbound trains (Trains 390 and 392).³⁷

[That assumption is reasonable. In some instances, a train will pass through an interlocking unimpeded, but in other instances it may be delayed for several minutes. One minute per instance is a reasonable approximation for average delay.]

³⁶ Maga SRVS at 13-14; Williams/Roberts SRVS at 4-5.

³⁷ This can be calculated from the TPC results provided in CN’s workpapers. At the Kinmundy interlocking, for example, it takes a total of 3.9 miles and 4.7 minutes for a train to slow to a stop and then reaccelerate to maximum track speed (in this case, 79 mph). By comparison, if the train only had to slow down to 50 mph (the maximum authorized speed through the interlocking) it would take it 3.51 minutes to cover the same 3.9 miles, for a total difference in time of 1.19 minutes.

- e. Differences between CN's two TPC calculations are insignificant.

Amtrak notes that CN's rebuttal evidence "contains different assumptions from the initial TPC calculations" in CN's opening evidence.³⁸ Specifically, CN assumed a horsepower-per-ton ("HPT") ratio of 7.15 for the Illini/Saluki trains in its opening submission, but an HPT ratio of 7.02 in developing the proposed Illini/Saluki schedules

CN made the change to refine the head-end power ("HEP") assumption used in its opening submission; the 7.02 figure used in the Illini/Saluki scheduling exercise is more accurate. The effect of the change is insignificant: using the slightly lower HPT ratio increases calculated PRT by just 0.4 minutes over the entire 300+ mile Chicago-Carbondale run (in either direction).

- f. Differences between "raw" TPC results and CN's proposed Illini/Saluki schedules are insignificant, and reflect appropriate rounding.

Amtrak complains that the PRT amounts that CN included in its proposed Illini/Saluki schedules differ from the "raw" PRT amounts calculated by CN's TPC.³⁹ They do so only trivially – by 1.5 minutes over 300+ miles – and because of rounding.⁴⁰ This rounding did not, as Amtrak claims, have a "material impact on the overall PRT reflected in the schedule."⁴¹

2. Amtrak's criticisms of CN's allocation of recovery time are unfounded.

CN explained how it determined the amount of baseline recovery time in its proposed Illini/Saluki schedules. *First*, it applied standard percentages of 5% and 4% of PRT to account

³⁸ Williams/Roberts SRVS at 5-6.

³⁹ Williams/Roberts SRVS at 6.

⁴⁰ Williams/Roberts SRVS at 6-7 (comparing 279.5 minutes of PRT in Krueger's rebuttal workpapers with 281 minutes of PRT in the CN schedule proposal).

⁴¹ Williams/Roberts SRVS at 7 n.18.

for operating and Temporary Slow Order (or “TSO”) allowances, respectively. Those percentages are used by CN in setting schedules for VIA’s passenger trains in Canada and its own freight schedules, and they are consistent with industry⁴² and Amtrak’s⁴³ processes and practices for setting a baseline of recovery time. *Second*, CN applied recovery time in specific segments in order to account for specific delays likely to occur in the segment due to either crossover movements or meets with freight or passenger trains. *Finally*, CN adjusted recovery time in order to meet Amtrak’s stated ASOTP goal of 80% without causing significant unneeded idling at interim stations.

Amtrak complains that CN’s adjustments to the schedule to help trains more reliably achieve 80% ASOTP are “arbitrary” and “only serve to further lengthen the Illini/Saluki schedules.”⁴⁴ As outlined above, CN’s adjustments were not “arbitrary.” They were carefully engineered, and transparently explained. CN applied recovery time where it is needed based on

⁴² See, e.g., TRANSPORTATION RESEARCH BOARD, 2010 GUIDEBOOK FOR IMPLEMENTING PASSENGER RAIL SERVICE ON SHARED PASSENGER AND FREIGHT CORRIDORS, Report Number 657, at 47-48 (*available at* <http://www.trb.org/Publications/Blurbs/163514.aspx>) (“TRB Guidebook”) (“According to FRA’s Railroad Corridor Transportation Plans guidance manual, whenever passenger schedules are produced by various TPC runs, a pad (make-up/recovery time) must be added to the TPC schedule to account for a number of factors. For a double track network the schedule pad is calculated by increasing the train runtime by a minimum of 7% to take into account such factors as human operation instead of perfect TPC operation, temporary slow orders, congestion or off-schedule trains, adverse weather conditions, and signal imposed delay, etc.”). Amtrak approvingly cites the TRB Guidebook’s recommendations at Williams/Roberts RVS at 9-10. While 7% may be an appropriate amount of recovery time for a “double track network,” where, as here, the network is primarily single track, a much higher amount would be appropriate.

⁴³ According to Mr. Maga, testifying as Amtrak’s 30(b)(6) witness, {{ [REDACTED]

}} Exhibit 2, Maga Tr. 71:11-18.

⁴⁴ Maga SRVS at 20; see generally *id.* at 16-20.

operating realities; it adjusted it in light of historical performance to meet Amtrak's stated OTP goal; and it further adjusted it to minimize unnecessary and disruptive delays.

Finally, Amtrak complains that CN's proposed schedules "leave[] substantial amounts of recovery time at the endpoints."⁴⁵ But backloading raises concerns only insofar as it is an obstacle to ASOTP, and CN has demonstrated, based on historical performance, that its schedules are expected to result in the achievement of Amtrak's 80% ASOTP goal. Moreover, under CN's proposal, Illini/Saluki backloaded recovery time would be reduced from 100% in the current schedules to an average of 30% in CN's proposed schedules. CN has explained why it may be preferable to have some recovery time at the end of a schedule: putting too much recovery time too early in the schedule can cause trains to idle at station stops, frustrating passengers, blocking the main line and increasing freight delay.⁴⁶

II. RESPONSE TO AMTRAK'S CRITIQUES OF SRS BASED ON CN FREIGHT SCHEDULING PRACTICES.

In its rebuttal evidence, Amtrak criticizes CN's proposal to use SRS to track freight delays caused by Amtrak, based on contentions regarding CN's scheduling practices.⁴⁷ Those critiques are based on misapprehensions regarding how SRS and CN's freight schedules work.

A. Changes to Train Schedules.

Amtrak argues that CN's schedules "cannot be used as a reliable baseline from which to measure freight train delay" because they are allegedly established pursuant to "unspecified

⁴⁵ Maga SRVS at 21.

⁴⁶ Krueger RVS at 9-10.

⁴⁷ See Vilter/Maga RVS at 26-27.

standards and without any input from Amtrak” and are “possibly changed” by CN personnel and “not followed . . . by CN’s freight trains” because of delays.⁴⁸

Amtrak’s arguments misconceive how SRS determines and measures train delays.⁴⁹ SRS includes specific measurement points, and delays are registered and included when a train is impeded in its travels between those points. The required time to travel between individual points is well established and Amtrak has not shown it is frequently changed or corrected. If a schedule changes, the result may be that a train does not depart from a point at the same time of day, but it would not change the expected unimpeded travel time between measurement points. And no delay would be attributed to Amtrak for a train that was not otherwise ready to proceed to the next measurement point. Thus, when the train is ready to move, SRS accurately measures delays it incurs that prevent it from proceeding unimpeded. The fact that train schedules occasionally change does not effect the accurate measurement of delay for trains in progress, which is what SRS measures.

In this way, CN’s use of SRS is no different than Amtrak’s own measurement of delays through eDR, despite the fact that Amtrak’s schedules change from time to time.⁵⁰ Amtrak does not view such changes as preventing or undermining its measurement of delays to its trains. When a train is ready to move or already in progress, CN can likewise determine if its train has suffered a delay.

⁴⁸ Vilter/Maga RVS at 26.

⁴⁹ CN did not rely on schedules in the sense of claiming costs for lost business or price suppression due to Amtrak causing its trains to arrive late to their destinations in accordance with their schedules. See Brief Section IV.B.1.

⁵⁰ According to Amtrak’s data, there were 80 temporary and 3 permanent schedule changes to Amtrak services operating on CN during the 48 month period between July 1, 2011 and June 30, 2015, an average of a little less than 2 per month. See Sacks VS at F-3 – F-5.

B. Provision for Expected Delays in CN Train Schedules.

Amtrak mis-cites a page of the Baranowski/Fisher VS as the basis for its contention that “CN’s schedules include additional time to make up for expected delays.”⁵¹ The page cited says nothing about CN’s schedules. It merely explains that SRS does not record certain short delays. There is no evidence in the Baranowski/Fisher VS or elsewhere in the record that CN’s freight schedules “include additional time to make up for expected delays.”

III. RESPONSE TO AMTRAK’S SPECIFIC CRITIQUES OF ITS CAPACITY MODELING.

CN’s opening submission explained how Amtrak consumes CN’s scarce and vital line capacity,⁵² and described both the direct freight delay costs⁵³ and the substantial, but not readily quantifiable, other costs⁵⁴ that consumption of capacity imposes on CN. CN’s capacity modeling demonstrated that hundreds of millions of dollars of infrastructure would be required to replace the capacity consumed by Amtrak – an amount that would increase with the service level to be provided to Amtrak (as determined by a combination of Amtrak’s schedules and applicable performance standards).⁵⁵

Amtrak makes several criticisms of CN’s capacity modeling. However, Amtrak does not offer any capacity modeling of its own, and it does not even attempt to demonstrate that additional infrastructure is unnecessary, or that alternative infrastructure could achieve the same results at a lower cost. Amtrak’s criticisms are unfounded.

⁵¹ Vilter/Maga RVS at 27 (citing Baranowski/Fisher VS at 3).

⁵² *See generally* Morehouse VS.

⁵³ *See generally* Baranowski/Fisher VS.

⁵⁴ *See generally* Morehouse VS; Murray VS.

⁵⁵ *See generally* Krueger/Doyle/Rank VS.

A. Amtrak's Main Criticisms Ignore the Purpose and Function of CN's Modeling Exercise.

The broadest criticisms leveled by Williams/Roberts reflect a failure on their part to recognize two key aspects of the purpose and function of the modeling exercise. First, Williams/Roberts complain that CN did not use a baseline case of current operations.⁵⁶ Using such a baseline case is customary, and makes eminent sense, when the question the model is intended to solve is one about the effects of a future change to current operations. But CN's capacity modeling was designed to address a different question, the one posed by the statutory incremental cost standard – what are the costs that CN incurs that it would not incur if Amtrak did not consume a substantial part of its capacity? To answer that question, modelers must use a hypothetical baseline case in which Amtrak is not present on CN's lines, and that is precisely what CN's modelers did.⁵⁷

Williams/Roberts make similarly miss the point when they state that they were “unable to find an explanation of why the CN modelers chose the specific infrastructure investments they are recommending.”⁵⁸ The explanation was very simply and clearly in the model's results: the infrastructure that was selected was the specific package that would come the closest to returning the capacity consumed by Amtrak's presence on CN's lines and operation at the stated service goals. Williams/Roberts offer no evidence or argument that the infrastructure selected by the modelers would do anything other than what the modelers said it would do: reduce the level of delay caused by Amtrak to the level that would be experienced by CN's freight trains in Amtrak's absence.

⁵⁶ See Williams/Roberts VS at 11-14.

⁵⁷ See Krueger/Doyle/Rank VS at 2-3.

⁵⁸ Williams/Roberts RVS at 38.

Second, Williams/Roberts argue that CN failed to establish that the cost of replacing capacity by means of the infrastructure investments its modeling identified would be justified, given that alternative solutions such as schedule modifications might be more cost-effective.⁵⁹ But CN did not make that claim. The purpose of CN's model was to estimate the cost of one possible solution to the problem of Amtrak's consumption of CN's capacity – replacing that capacity through infrastructure investment. By doing so, the model provides a quantification of the magnitude of the problem, in the form of capacity replacement cost, and informs consideration of the relative cost-effectiveness of various different solutions to the problem. CN agrees with Amtrak that other solutions may be more cost-effective, and encourages Amtrak to pursue other solutions, such as reducing the burden it places on CN's capacity by modifying its schedules and/or reducing its service demands.

Given the purpose of CN's model, there is also no merit to Williams/Roberts' further complaint that CN's cost estimates lack sufficient detail.⁶⁰ CN's cost estimates were conservative, and they were sufficient to inform consideration by the parties and the Board of what is the most efficient mix of solutions (including schedule adjustments, infrastructure additions, and changes to service demands) to serve the public interests in both passenger and freight service. More detailed costing would be appropriate if and when Amtrak (or its sponsors) evinces the ability and willingness to fund infrastructure solutions.

Amtrak's remaining criticisms raise narrower methodological issues and, as elaborated below, fail to undermine CN's modeling.

⁵⁹ *See id.* at 37-39.

⁶⁰ *See id.* at 40.

B. Amtrak's Criticisms Of CN's Model Design Are Unfounded.

1. RCM is a well known modeling tool that is well-suited to this particular modeling exercise.

Amtrak claims that the capacity modeling tool CN used, Route Capacity Model (“RCM”), is “not widely known, utilized, or accepted elsewhere within the railroad industry” and that it is a “black box” that “hinder[s] full evaluation by Amtrak and the Board.”⁶¹

Amtrak is wrong. RCM is, or has been, used by, at least, CSX, Sea Board System Railway, CANAC Consultants, University of Illinois, and the Transport Canada Research Council.⁶² Amtrak had ample opportunity to replicate and evaluate CN's RCM results; all RCM executables, source code, design documentation, inputs and outputs were provided to Amtrak.⁶³ And Amtrak's characterization of it as a “black box” is belied by Amtrak's own voluminous evidence (Attachment C3 through Z (a total of over 200 pages) and discussion (pages 36-69 of the Williams/Roberts RVS), which demonstrate that Amtrak was able to scrutinize the RCM's output in minute detail (including stringline diagrams, data on individual meets/overtakes, and comparisons between scenarios).⁶⁴ What Amtrak was unable to do is produce any evidence that RCM is “wrong” or biased in favor of CN, or that CN's modeling conclusions using RCM were incorrect.

⁶¹ *Id.* at 9-11.

⁶² See also <http://railtec.illinois.edu/CEE/pdf/Thesis/Yung-ChengRexLaiDissertation.pdf> (describing RCM as “a computationally efficient model that can complete 500 runs in 10 seconds and is thus well-suited for system-level capacity analysis”); Expansion of Canadian National Railway's Line Capacity (<https://www.jstor.org/stable/25060783>) (describing the development and use of RCM).

⁶³ In contrast, RTC source code and design documents are not publicly available.

⁶⁴ See also Williams/Roberts RVS at 43-44 (“the Stringline Viewer tool allowed us to undertake a more detailed analysis of CN's simulated train movements”). Amtrak also had ample opportunity to seek discovery on any aspect of RCM it felt was insufficiently explained in CN's submissions and workpapers.

Amtrak complains that CN's capacity modeling "was performed for the specific purpose of this proceeding,"⁶⁵ but that is no flaw. Many simulations submitted in Board proceedings (particularly the far more complex stand-alone railroad models) are performed only for a specific proceeding. And Amtrak's further complaint that CN did not "give specific reasons for relying on RCM in this non-internal context"⁶⁶ is simply untrue. CN provided many reasons why RCM is an appropriate tool for this type of simulation.⁶⁷ Unlike RTC, RCM provides input-specific replicable results (*i.e.*, the model will reproduce identical results (including identical individual dispatch decisions) given identical inputs), and allows the user to interact with the simulation in order to override default dispatching decisions. This flexibility allows for modeling that is more realistic, more accurate, and more consistent between various scenarios.⁶⁸

2. CN's freight-only base case was reasonable and appropriate.

Amtrak asserts that "it is not possible to accurately model freight delays attributable to Amtrak without a base case of current freight and passenger operations against which they could calibrate model results."⁶⁹ This statement is absurd; the **only** way to accurately model freight delays attributable to Amtrak is to start with a base case that excludes Amtrak.

In many cases, modeling is undertaken to answer a question about what would happen if the current status quo were to change, and to answer such a question it is necessary to start with a

⁶⁵ Williams/Roberts RVS at 10-11.

⁶⁶ Williams/Roberts at 11.

⁶⁷ See Krueger/Doyle/Rank VS at 8.

⁶⁸ Williams/Roberts include a number of cites from the TRB Guidebook touting the benefits of the RTC model, Williams/Roberts at 10, but fail to note that the same document notes that RTC is "not well suited . . . for the rapid screening of multiple alternatives," which is exactly the use that was required here. TRB Guidebook at 36.

⁶⁹ Williams/Roberts RVS at 11-14; *see also id.* at 13 ("CN modelers failed to establish a realistic baseline for the current performance of trains using the corridor").

baseline representing the current status quo. This is not such a case, and the purpose of CN's modeling was to address a different question: how do various scenarios with Amtrak compare to one without Amtrak? To answer that question, the appropriate baseline is, necessarily, one without Amtrak – a freight-only scenario.

3. CN's modeling reflects reality.

Amtrak argues that CN's model is "founded on a built-in design flaw" that "will always lead to the conclusion that additional infrastructure is necessary to mitigate . . . incremental delay that is attributable to Amtrak," and characterizes that as a modeling flaw.⁷⁰ Again, Amtrak either misunderstands or misleadingly misstates the purpose of CN's modeling.

CN has scarce rail line capacity. Six Amtrak trains operating over hundreds of miles of a predominantly single track freight rail corridor consume a large amount of that capacity. Replacing that capacity so that CN can serve its freight customers without incurring substantial incremental delay and other costs inevitably requires additional infrastructure. That is an obvious, common-sense reality, not a modeling flaw. CN's modeling serves to quantify it.

C. Amtrak's Criticisms Of CN's Simplifying Assumptions Are Unfounded.

After recognizing that "[e]very model makes simplifying assumptions,"⁷¹ Williams/Roberts criticize a number of the simplifying assumptions in CN's capacity model. In doing so, however, Williams/Roberts fail to recognize that the simplifying assumptions do not greatly distort the results of the model and, to the extent they introduce any distortion, do so in a manner that benefits Amtrak.

⁷⁰ Williams/Roberts RVS at 14-20.

⁷¹ Williams/Roberts RVS at 20.

1. Amtrak's assertion that the conversion of monthly targets to daily targets was improper is wrong.

CN's modelers describe converting monthly delay targets for Amtrak trains into daily delay targets by dividing the monthly target by 30.4 (*i.e.*, the number of days in an average month).⁷² Amtrak asserts that CN's "conversion" of the monthly delay targets for Amtrak into daily delay targets "grossly distorted and misapplied those targets,"⁷³ leading the model to "overstate[] the infrastructure requirements that CN claims are necessary."⁷⁴

The basis for these claims appears to be Williams/Roberts's erroneous belief that the CN modelers "treated their daily delay targets as upper bounds on delay minutes, thereby erasing an accounting for statistical variance."⁷⁵ However, that simply did not happen. CN's evidence and workpapers demonstrate that CN's modelers did not rigidly adhere to daily delay targets for Amtrak trains, but instead merely used the targets as a point of reference to ensure that each day was being dispatched with a target/expected/objective service level in mind.⁷⁶ On some days the simulated Amtrak trains experienced delays above the daily target, and on other days they

⁷² Krueger/Doyle/Rank VS at 42. CN's modelers described how they determined that a week's worth of traffic is sufficiently representative. *Id.* at 22. Williams/Roberts provide no evidence that modeling a different time period would have resulted in materially different results.

⁷³ Williams/Roberts RVS at 20; *see generally id.* at 20-30.

⁷⁴ *Id.* at 24.

⁷⁵ Williams/Roberts RVS at 24; *see also id.* at 27-29 (asserting that CN's modelers would have made operational adjustments to trains that exceed daily delay targets).

⁷⁶ Amtrak presumably seeks a consistent service from day to day, which would imply that trains incur similar amounts of delay each day. While occasional issues arise where a train may experience an unusual amount of delay, such outliers are impractical and unnecessary to include in modeling that is seeking representative operations over a lengthy period of time.

experienced delay below the daily target.⁷⁷ The variation went both ways, and Amtrak provides no evidence that it created a systemic bias.

Amtrak also criticizes CN for measuring delay at the level of individual trains (such as Train 58 or Train 59) instead of at the service level (such as the City of New Orleans, which comprises both those trains).⁷⁸ But Amtrak fails to explain why modeling delays at a more granular level would be less accurate and reliable than taking a broader, less detail-oriented approach.⁷⁹

2. CN's sample weeks were not arbitrary.

CN's modelers described in detail how and why they chose the selected weeks, and how and why they adjusted the freight traffic volumes in those weeks to be more representative of the entire year.⁸⁰ Amtrak criticizes CN for the alleged "arbitrary manner" in which the modelers chose the sample weeks that served as the initial basis for the freight traffic volumes used in the model.⁸¹ Williams/Roberts's primary basis for objecting to the weeks chosen appears to be the

⁷⁷ See, e.g., Krueger/Doyle/Rank VS at 41-42 (tables showing average minutes of daily delay for some Amtrak trains above the daily target, meaning that, as a matter of simple mathematics, the targets could not have been an upper bound for those trains).

⁷⁸ Williams/Roberts RVS at 24-26.

⁷⁹ To the extent Amtrak means to suggest that it would be appropriate for CN to reduce its freight delay costs by aiming to help Amtrak achieve OTP on a service-average basis while neglecting the OTP of an individual Amtrak train, that suggestion appears inconsistent with the general thrust of Amtrak's position and the interests of its passengers. However, consistent with CN's position that Amtrak could reduce the compensation it owes CN by reducing CN's freight delay and capacity costs by reducing the demands it makes of CN, CN is willing to explore with Amtrak schedule adjustments and changes in performance standards for specific Amtrak trains as a means to reduce costs, if Amtrak wishes to do so.

⁸⁰ Krueger/Doyle/Rank VS at 22-33. The modelers also provided detailed workpapers supporting their traffic package.

⁸¹ Williams/Roberts at 30.

fact that some Amtrak trains on the GTW Lines operated on a modified schedule during that week.⁸²

That objection misunderstands what CN did. As CN’s modelers made clear, the week chosen applied only to the ***freight traffic*** package, while “Amtrak trains were assumed to operate as per their schedule, and were further assumed to arrive at their origination point on the CN line at their scheduled arrival time.”⁸³ There was nothing arbitrary about this process, and, in any event, Amtrak provides no evidence that a different week would have been more representative or would have led to different results.

3. CN’s Adjustments To Freight Traffic Data Were Appropriate.

After criticizing CN for selecting an “arbitrary” week as the basis for the freight traffic package, Williams/Roberts then contradict themselves by criticizing the CN modelers for making adjustments in order to make the chosen week more representative of an entire year.⁸⁴ Amtrak complains that the CN modelers removed any “anomalies” that are “typical of an actual week” of railroad operations, and “exclud[ed] usual but irregular freight train movements.”⁸⁵ But anomalies and irregular movements are the hardest to schedule and dispatch and the most apt to sustain delays; their exclusion tends to reduce the delays calculated by the model, and thus to lead to lower levels of required infrastructure.

⁸² *Id.*

⁸³ Krueger/Doyle/Rank VS at 33. CN could have assumed that Amtrak’s trains arrived late (which they regularly do), which would have required dispatchers to hold the CN line open for long periods of time so as to not delay Amtrak from moving onto CN’s line, but chose instead the more conservative assumption that Amtrak trains would be on time.

⁸⁴ Williams/Roberts RVS at 31-34.

⁸⁵ *Id.* at 31-32.

Williams/Roberts's criticism of the modelers' "smoothing" of freight train lengths typifies this notion. Smoothing the freight trains eliminated exceptions (*e.g.*, those trains that on a particular day "ran-long" and therefore could not fit in all the sidings on their route or "ran heavy" with lower than usual HPT), thereby reducing modeled interference and the resulting need for capacity.

4. Amtrak fails to show any error in CN's treatment of parallel routes.

Amtrak complains that the model "is unable to select a parallel route without manual intervention by the modelers."⁸⁶ This statement is factually accurate, but Williams/Roberts provide no evidence that trains were not routed correctly, nor do they provide any evidence demonstrating that alternative routings would have changed the results of the model. In reality, trains use the route that is defined in their Train Service Plan ("TSP"); the dispatcher does not generally have discretion to alter their route (except in highly unusual circumstances where there is significant congestion on or disruption to one portion of the track).

5. CN's assumptions regarding Amtrak's route through Memphis were appropriate and conservative.

Amtrak asserts that the model "did not fully account for the characteristics of the 17-mile track segment used by Amtrak and the differences between the freight route through Memphis and the Amtrak route through Memphis."⁸⁷ The CN modelers did make a simplifying assumption for the line model to treat Memphis as a terminal area instead of attempting to model the precise route through Memphis.⁸⁸ Again, however, this simplifying assumption was

⁸⁶ Williams/Roberts RVS at 34. As used here, a "parallel route" is an alternative subdivision, as opposed to a section of double track (which the model can handle without manual intervention).

⁸⁷ Williams/Roberts RVS at 36.

⁸⁸ Krueger/Doyle/Rank VS at 21, ¶¶ 6-7.

conservative (reducing modeled delays, and thus modeled infrastructure requirements), since there cannot be any delays recorded in a terminal area.⁸⁹

D. CN's Simulations Support The Infrastructure Selected.

Amtrak has two primary complaints about the infrastructure that was ultimately selected by the CN modelers: (1) the locations of some improvements are addressed at reducing freight/freight interference instead of freight/Amtrak interference;⁹⁰ and (2) some of the selected improvements would not be heavily used.⁹¹ Amtrak's witnesses do not, however, deny that the selected infrastructure would encompass the model's purpose: it would restore the level of freight delay CN experiences to the same level it would experience in Amtrak's absence. Nor has Amtrak presented any evidence that alternative infrastructure investments would have the same result at lower cost.

As CN's modelers made clear, their goal was not to eliminate all interference directly caused by Amtrak's trains, but rather to efficiently return the overall capacity that is consumed by Amtrak's operations. Amtrak's proposed solution – installation of infrastructure only in locations where freight trains are delayed by Amtrak – would be inefficient, and likely require substantially more infrastructure investment than that proposed by CN.⁹² Eliminating all Amtrak interference with freight operations would be prohibitively expensive, if even possible. Instead,

⁸⁹ As discussed above, Williams/Roberts statement that the treatment of Memphis as a terminal “had an effect on the TPC's calculation of the minimum run times for the Amtrak City of New Orleans trains through the Memphis area” is demonstrably false insofar as they are referring to the TPC results that were used in CN's calculation of PRT. *See supra* § I.B.1.c.

⁹⁰ Williams/Roberts RVS at 42-53.

⁹¹ Williams/Roberts RVS at 54-63.

⁹² Williams/Roberts misstate the record when they assert that CN's modelers claimed that the specific infrastructure improvements “were selected for the purpose of reducing delay alleged to be due to Amtrak interference.” Williams/Roberts at 54.

CN adopted a more rational and efficient solution – “trading” some remaining Amtrak interference for efficient reductions of an equivalent level of delays due to freight/freight meets. Building a siding in a congested freight area can give a higher return on investment (because it can benefit multiple freight meets over the course of a day) than building a siding to eliminate a specific freight/Amtrak interaction (which might occur only once a day).

Williams/Roberts also complain that some investments are not heavily used. But capacity is a step function. Some plant is critically important for the fluidity of the system, even if it is only used sparsely. For example, on a single-track system, even a passenger-only line with just a single pair of opposing trains per day running every day will require a multi-million dollar siding in order to accommodate their one daily meet. And on a more complex system like CN’s, managing one meet efficiently can reduce multiple delays from additional meets down the line.

IV. RESPONSE TO AMTRAK’S CRITIQUES OF CN’S ANALYSIS OF THE DETRIMENTAL IMPACTS ON CN’S OPERATIONS OF ATTEMPTING TO MEET THE SERVICE STANDARDS DEMANDED BY AMTRAK’S INITIAL PROPOSAL (“BUBBLE ANALYSIS”).

In response to Amtrak’s Initial Proposal, CN analyzed what it would need to do, and how its freight operations would be harmed, if it attempted to satisfy the service levels established under that proposal (*i.e.*, the service levels that must be met to avoid penalties).⁹³ CN demonstrated that it would have to radically subordinate its freight operations to Amtrak’s demands, cede use of its rail lines to Amtrak for most of the day, and create the equivalent of a huge “bubble” around Amtrak’s trains, excluding other trains.⁹⁴ Amtrak’s witnesses

⁹³ See generally Krueger RVS at 14-26.

⁹⁴ *Id.*

Williams/Roberts criticize CN's "bubble analysis."⁹⁵ As elaborated below, their criticisms fail to cast any serious doubt on CN's analysis.

First, Williams/Roberts argue that the model 11,000-foot, 0.8 HPT freight train used in CN's bubble analysis is not representative of CN trains on the Chicago to Carbondale corridor.⁹⁶ But that is essentially a non-issue. CN's analysis will not vary dramatically with variations in train length, because, in order to be conservative, the analysis permitted long trains to use sidings they otherwise in fact they would not be able to fit in.⁹⁷ This fact also explains why Williams/Roberts' repeated claim that due to its use of long trains CN's analysis failed to take advantage of short sidings and that CN "ignore[d] the utility of double track and sidings."⁹⁸ Those assertions are simply wrong.

CN's analysis is also not highly sensitive to assumptions about HPT. In any event, Williams/Roberts' discussion of typical HPTs is misleading. They cite the example of a single train (Q195), which they assert has an HPT of 1.5, then generalize the HPT for that one train to all trains on the corridor.⁹⁹ However, the data on which they rely (in the workpapers for the Krueger VS) reflect that the weighted average for all trains on the corridor is 0.85 HPT.

⁹⁵ See Williams/Roberts SRVS at 8-22.

⁹⁶ See Williams/Roberts SRVS at 11-14.

⁹⁷ This fact is readily apparent from the plotted output, which shows that CN included all sidings, even those shorter than the length of the freight train. Williams/Roberts appear to complain about a supposed lack results in the workpapers. It appears they failed to realize that the Python scripts that were provided directly plot the graphs and give text-based console outputs and csv outputs for the numbers in Tables 8 and 9 of the Krueger RVS. There is no "intermediate" or other output of the program that was not provided to Amtrak or the Board.

⁹⁸ Williams/Roberts SRVS at 15-19.

⁹⁹ Williams/Roberts SRVS at 13.

Second, Williams/Roberts assert that CN's analysis overstates the necessary exclusion zone around an Amtrak train, since a dispatcher would "advance a train to the next siding" when possible.¹⁰⁰ They claim that CN "provides no explanation for why such an expansive clearance would be required from an operational perspective."¹⁰¹

Insofar as Williams/Roberts' point is that a smaller exclusion zone would be consistent with reasonable railroad operations, CN agrees. However, the point of CN's analysis is not to model reasonable railroad operations; it is to model the railroad operations that would be required to meet Amtrak's unreasonable service demands. Amtrak's Initial Proposal would require CN to eliminate essentially all FTI.¹⁰² That goal requires absolute clearance points and decision points; the freight train cannot be advanced past them without causing Amtrak some delay.

Because of the high speed of the Amtrak train, the even higher relative speed of two opposing trains (which is sum of both their velocities), and the Amtrak service levels (which would require the CN freight trains to be completely in the clear before the Amtrak train arrived at the signal for the siding), and an inherent uncertainty about their estimated arrival times at the Decision or Clearance Points, it should not be surprising that decisions about when and where to put freight trains into the clear (at a siding or end of double track) need to be made well in advance of the meet. All relevant calculations are spelled out in the Krueger RVS and

¹⁰⁰ Williams/Roberts SRVS at 17.

¹⁰¹ Williams/Roberts SRVS at 15-16.

¹⁰² See Krueger RVS at 14-17.

workpapers. Williams/Roberts provide no evidence or argument that those calculations are wrong; they merely take issue with the results.¹⁰³

Finally, Williams/Roberts argue that CN's comparison a blackout period for a piece of track to a blackout at an interlocking diamond is "strained" and "absurd."¹⁰⁴ But they do not explain why. Rolling curfews occur regularly on a railroad, for example, when track sections are taken out of use sequentially for maintenance equipment. There is nothing "absurd" or "strained" about Mr. Kruger's curfew analysis.

¹⁰³ See Williams/Roberts SRVS at 16-20.

¹⁰⁴ Williams/Roberts SRVS at 22.

EXHIBIT 1

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EXHIBIT 2

Excerpts from the deposition of Paul E. Vilter

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BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. FD 35743

APPLICATION OF THE NATIONAL RAILROAD PASSENGER
CORPORATION UNDER 49 U.S.C. Section 24308(a) -
CANADIAN NATIONAL RAILWAY COMPANY

DEPOSITION OF PAUL E. VILTER
Tuesday, June 13, 2017
9:36 a.m.

Reported by Bess A. Avery, RMR, CLR
Job No. LA-129820
Pages 1 through 249

1 Q Did you have some understanding of what he
2 was tasked with?

3 A Yes.

4 Q Did Amtrak, for example, set a goal of
5 achieving 80 percent ASOTP?

6 A That is Amtrak's goal in this incentive
7 system, yes.

8 Q To your knowledge, was Mr. Sacks permitted
9 to assume that schedules would change?

10 MR. NEUMAN: Objection, vague.

11 THE WITNESS: I don't know.

12 BY MR. HIRSH:

13 Q Did Amtrak authorize Mr. Sacks to consider
14 ways to improve ASOTP by changing Amtrak's own
15 operations?

16 A I don't know.

17 Q How, if at all, did cost to CN factor into
18 Amtrak's proposal?

19 A Cost to CN meaning?

20 Q Meaning the cost that CN would incur,
21 again, not what you paid CN?

22 A It did not factor into Amtrak's proposal
23 significantly.

24 Q How, if at all, did impacts on CN's
25 freight customers factor into the proposal?

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EXHIBIT 3

Excerpts from the deposition of Jason J. Maga

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