EXPEDITED CONSIDERATION REQUESTED

BEFORE THE
SURFACE TRANSPORTATION BOARD
DOCKET NO. FD 36496

APPLICATION OF THE NATIONAL RAILROAD PASSENGER CORP. UNDER 49 U.S.C. § 24308(e) – CSX TRANSPORTATION, INC. AND NORFOLK SOUTHERN CORPORATION

AMTRAK'S REPLY ARGUMENT AND EVIDENCE

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EXECUTIVE SUMMARY

The National Railroad Passenger Corp. ("Amtrak") was born of the grand bargain struck a half-century ago in the Rail Passenger Service Act of 1970 ("the Act"). At that time, private railroads were incurring "heavy and continuing losses" from providing intercity passenger service.[1] The Act offered relief, freeing private railroads from the financial burden of operating passenger trains, but only if they complied with certain conditions—including reaching agreements with the newly created Amtrak corporation pursuant to which the private railroads would continue to "provide Amtrak with the use of tracks, other facilities, and services" for Amtrak to provide intercity passenger rail.[2]

CSX Transportation, Inc. ("CSX") and Norfolk Southern Railway Company ("NS") appear to have forgotten this fundamental deal struck fifty years ago. Consequently, for the past several years, Amtrak—on behalf of the transportation authority representing Louisiana, Mississippi, and Alabama—has been attempting to obtain CSX's and NS's agreement to allow Amtrak to restore intercity passenger rail service between the major population centers in New Orleans, Louisiana and Mobile, Alabama for those who live, work, and visit the area (the "*Gulf Coast* service"). And for the past several years, CSX and NS have stonewalled Amtrak's efforts, refusing to participate in a statutorily mandated report to Congress on facilitating renewal of service along the Gulf Coast; denying Amtrak's requests to share basic information as part of a prior study on the restoration of service; and demanding that Amtrak build hundreds of millions (or even billions) of dollars in infrastructure improvements before Amtrak can run even a single *Gulf Coast* train. CSX's and NS's opening evidence makes clear that they have not reconsidered their position and therefore

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[1] *Nat'l R.R. Passenger Corp. v. Atchison Topeka & Santa Fe Ry. Co.,* 470 U.S. 451, 454 (1985).

[2] *Id.* at 454-55.

the Surface Transportation Board ("the Board") must now, as directed under 49 U.S.C. § 24308(e), address Amtrak's application to operate the *Gulf Coast* service.

This case is not only about the importance of the *Gulf Coast* service to the people and economy of that area, but also about the Board's statutory role under Section 24308 to ensure that the introduction of passenger rail service is not subject to unwarranted delays caused by host railroads. Amtrak currently is undertaking an ambitious national strategy to significantly augment intercity passenger service over the next fifteen years. With a growing and diverse population, a global climate crisis and longer traffic jams, America needs an intercity passenger rail network that offers frequent, reliable, sustainable, and equitable train service. In *Amtrak Connects US: Amtrak's Vision for Improving Transportation Across America*, Amtrak has identified a number of corridors around the country that could be better served by intercity passenger rail transportation, including the Gulf Coast corridor.[3] In the Gulf Coast corridor, as elsewhere, it has always been Amtrak's goal to work cooperatively with host railroads as Amtrak restores, improves, and expands its intercity passenger service network. But when host railroads behave as CSX and NS have behaved here, swift and decisive intervention from the Board is required to provide Amtrak with the relief Congress intended in Section 24308(e).

Indeed, the parallels between the conditions that spurred Congress to enact Section 24308(e) and the conditions present in this case are striking. In 1980, facing a national energy crisis, Amtrak was attempting to expand its passenger rail network in busy corridors so as to reduce America's dependence on automobile transportation. As it attempted to expand, Amtrak faced significant resistance and even "intransigence" from the host railroads, who demanded

[3] *See* Ex. 1, Reply Verified Statement of Dennis Newman, Amtrak Executive Vice President for Planning & Asset Development ("Newman Reply Verified Statement") (attaching *Amtrak Connects US: Amtrak's Vision for Improving Transportation Across America*).

"inordinate capital improvements" and attempted to fight Amtrak in lengthy arbitration proceedings rather than allow Amtrak to run additional trains.[4] Realizing that such a situation was untenable and not in the national interest, Congress enacted Section 24308(e), stating that it was "the purpose of this provision to ensure that [Amtrak] service may be added where no significant impairment of freight operations is demonstrated" and that it was "important that Amtrak have available to it an expedited procedure for making necessary modifications or additions to its operations."[5] The expedited procedure set forth in Section 24308(e) is the one under which Amtrak is proceeding today, in the face of the very same host railroad "intransigence" and demands for "inordinate capital improvements" that attempted to block Amtrak's efforts to expand forty years ago.

In their opening evidence, CSX and NS all but ignore Section 24308(e) and its history. Section 24308(e) requires that the Board order that Amtrak be permitted to run additional trains over the lines of CSX and NS *unless* CSX and NS meet their "burden of demonstrating" that the additional trains will "impair unreasonably [their] freight transportation."[6] Rather than try to meet that burden, CSX and NS instead attempt to shift the burden to Amtrak. In CSX's and NS's upside-down reading of the statute, it is Amtrak that must accommodate freight trains, building hundreds of millions of dollars in infrastructure improvements to the host railroads' network and facilities such that when Amtrak service is restored, "*no* aggregate freight service delays would result, *no* schedules would be adjusted, and that passenger service will achieve a 95% OTP rate."[7] Stated another way, CSX and NS would require Amtrak to make accommodations such that their freight

[4] H.R. Rep. No. 96-839, at 21 (1980).

[5] H.R. Rep. No. 96-1041, at 42 (Conf. Rep.).

[6] 49 U.S.C. § 24308(e).

[7] CSX and NS Opening Evidence at 49 (emphasis added; footnotes omitted).

business would "run unimpaired" by Amtrak.[8] But the proper standard is "unreasonable impairment," not no impairment at all. Applying the correct standard, CSX and NS's opening evidence fails to meet their statutory burden.

First, CSX and NS do not offer any definition of "unreasonable impairment" beyond equating their belief that Amtrak should not be permitted to run trains that might potentially impact their future freight transportation with "unreasonable impairment." Other than bare percentages of how, in CSX's and NS's opinion, their future freight transportation will be impacted by the introduction of the *Gulf Coast* service, CSX and NS give no real-world evidence of whether and to what extent the reintroduction of passenger service will, in practice, unreasonably impair their ability to provide freight transportation to shippers. Section 24308(e) requires far more than showing possible delays or potential inconvenience to the host railroad. The plain language of the statute, the provision's congressional history, and decisions interpreting similar standards all require a showing that the *Gulf Coast* service will impair freight transportation to an excessive degree, which CSX and NS have not even attempted to demonstrate. The statute does not require Amtrak to prove that (or provide for a world in which) there will be no impact at all to freight transportation. *See infra* Part I.

Second, the Rail Traffic Controller ("RTC") modeling that is the sole evidence for CSX's and NS's case is fundamentally flawed in its design and therefore also in its conclusions. By CSX's and NS's own admission, the RTC modeling reflects the infrastructure Amtrak purportedly would need to build in order for the Gulf Coast service to result in absolutely no delays and no schedule changes to their forecasted freight transportation, such that freight trains could run as if the *Gulf Coast* service did not exist at all.[9] Moreover, CSX and NS repeatedly used unreasonable

[8] *Id.* at 52.

[9] CSX and NS Opening Evidence at 49, 52.

and unrealistic inputs for their RTC model that do not simulate the current conditions that exist along the Gulf Coast route. In one of the most egregious examples, CSX and NS modeled 257% more freight traffic than actually existed according to their own data. A model's outputs are only as good as the underlying inputs; garbage in, garbage out. As demonstrated by Amtrak's experts, the RTC modeling here used unrealistic inputs for traffic congestion, line blockages, and operational practices. It also overextended dwell times, reflected inefficient dispatching decisions, and failed to include relevant infrastructure that could have been used to avoid conflicts. The RTC model's inputs and conclusions are too skewed to constitute probative evidence. *See infra* Part II.

Third, CSX's and NS's demands for hundreds of millions of dollars in new infrastructure as a condition for allowing Amtrak to run a single *Gulf Coast* train are both legally and factually unsupported. As a legal matter, the plain text of the statute shows that Congress did not intend for proceedings under Section 24308(e) to determine specific infrastructure requirements when no unreasonable impairment exists. Rather, once the Board finds that additional passenger trains would not cause an unreasonable impairment to freight transportation, the Board should issue its order that the service be permitted to commence within 60 days and then end this proceeding. Amtrak already has operating agreements in place with both CSX and NS that set forth the payments Amtrak is obligated to make for additional trains and therefore there is no need for the Board to address compensation for the service. As a factual matter, the $440 million in new infrastructure CSX and NS demand as a condition of running a single train (although a significant decrease from their prior demands of more than $1 billion) is based on their fundamentally flawed RTC model and is therefore itself also fundamentally flawed. Once service is restored, Amtrak intends to work with CSX and NS—as it works with them and with all of its host railroads—on both capital projects and operational measures to continue to improve the reliability and efficiency of the service. Indeed, as CSX and NS are aware, there is already $66 million in federal and state

capital funds dedicated for restoration of the *Gulf Coast* service. But it is simply unfathomable that CSX's and NS's price for running even a single train over the approximately 150 miles between Mobile and New Orleans is *$3 million per mile*. *See infra* Part III.

Fourth, as the analysis of Amtrak's experts demonstrates, there is already sufficient capacity to run the twice-daily *Gulf Coast* service without adding additional infrastructure prior to initiating the service and without unreasonably impairing CSX's and NS's freight transportation. Although there are efficiency improvements that can be made along the Gulf Coast corridor and that Amtrak is prepared to help make once service is restored, those improvements are orders of magnitude less than what CSX and NS demand. With the exception of a layover track for Amtrak trains to park during the day in or around Mobile, these modest improvements need not be made prior to the start of service, but rather can be phased in over time. *See infra* Part IV.

Finally, although the Alabama State Port Authority and Terminal Railway Alabama State Docks (collectively, "TASD") have filed separate opening evidence and comments, they are not parties to this proceeding. TASD is not the "rail carrier" over whose lines Amtrak is seeking to run under Section 24308(e) and thus any possible inconvenience to TASD is irrelevant to the issues before the Board. In any event, TASD's evidence does not establish that the *Gulf Coast* service causes any unreasonable impairment. As a result, the Board should disregard TASD's submission. *See infra* Part V.

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Amtrak's Reply Evidence is supported by four Reply Verified Statements. The Reply Verified Statement of Amtrak's Executive Vice President for Planning & Asset Development, Dennis Newman, explains Amtrak's vision for expanding passenger rail service in corridors such as the Gulf Coast, the benefits such service would bring, and the importance of securing cooperation from host railroads for this expansion. The Reply Verified Statement of Amtrak's

Assistant Vice President Host Railroads, Jim Blair, details the lack of cooperation that CSX and NS have shown with respect to Amtrak's attempts to restore the *Gulf Coast* service and explains why the Gulf Coast corridor is not the "unique" operating environment that CSX and NS claim that it is. The Reply Verified Statement of Thomas D. Crowley and Daniel L. Fapp of L.E. Peabody & Associates, Inc. exposes the fundamental flaws in the RTC modeling relied on by CSX and NS as their sole evidence of unreasonable impairment. And the Reply Verified Statement of DB Engineering & Consulting USA, Inc. details the current capacity on the Gulf Coast corridor to accommodate Amtrak's proposed *Gulf Coast* service.[10]

Because CSX and NS have failed to meet their statutory burden of demonstrating that their freight transportation will be unreasonably impaired by renewal of passenger service on the Gulf Coast corridor, Amtrak asks the Board to order CSX and NS, "within 60 days, to provide or allow for the operation of [Amtrak's] requested trains on [Amtrak's requested] schedule based on legally permissible operating times." 49 U.S.C. § 24308(e).

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[10] Due to CSX's and NS's repeated refusal to reconsider their position that basic information about, for example, the number and types of trains they run is "highly confidential," Amtrak was required to redact large parts of the Reply Verified Statements of Amtrak's experts that cited or relied on information CSX and NS designated "highly confidential." After CSX and NS filed their opening evidence and workpapers, Amtrak requested that CSX and NS redesignate the "highly confidential" workpapers that they produced, and in particular requested that they redesignate their historical train movement data. Letters from Kali N. Bracey, Counsel for Amtrak, to Raymond A. Atkins et al., Counsel for CSX, and William A. Mullins & Crystal M. Zorbaugh, Counsel for NS (Nov. 8, 2021) (attached as Ex. 5). CSX and NS refused. CSX argued that "[a]ll documents, data, and information that reflect the movement of trains on CSXT's network are commercially sensitive. This would include OS data, train profile data, dispatch data, operating plans, and actual train movement data." Letter from Matthew J. Warren, Counsel for CSX, to Kali N. Bracey et al., Counsel for Amtrak, at 2 (Nov. 15, 2021) (attached as Ex. 6). This is the same refusal to share basic data that CSX and NS espoused during the 2020 RTC study and that rendered that study non-viable. Amtrak continues to believe that train movement and train type data (particularly train movement and type data that is more than two years old at this point) is not competitively sensitive and should be publicly disclosed. Indeed, a person or camera stationed along CSX's or NS's lines for a period of time could easily obtain this type of data simply by recording train movements and train types as they go by. Amtrak obviously is not trying to "determine the identity and location of CSXT customers, to obtain customer-specific traffic information such as car volumes, [or] to analyze CSXT's business and operations strategy," which was CSX's justification for designating the data "highly confidential." *Id*. Rather, Amtrak needs access to the data to ensure that the inputs CSX and NS use for their models reflect actual, real-world operations. Given the compressed timeframe for this proceeding, Amtrak redacted CSX's and NS's train movement and related data from its Reply Evidence, but simultaneously with this filing, Amtrak is moving for an order that would allow Amtrak to make all of its Reply Evidence public.

BACKGROUND

Amtrak previously served the Gulf Coast region with three different services, two of which ran between the currently proposed New Orleans and Mobile city pair. Amtrak launched service along the Gulf Coast beginning in 1984 with the daily *Gulf Coast Limited* between Mobile and New Orleans, a service sponsored by the Southern Rapid Rail Transit Commission (now the Southern Rail Commission, comprised of representatives from Alabama, Louisiana, and Mississippi) ("SRC")). Although the train was well patronized, state financial support was insufficient to sustain the operation and the service was terminated in January 1985. In March of 1993, Amtrak inaugurated the first coast-to-coast intercity passenger train by extending the long distance, tri-weekly Los Angeles-New Orleans *Sunset Limited* to Miami, Florida and points in between. In 1996, at the request of the SRC, Amtrak restored the *Gulf Coast Limited* service between New Orleans and Mobile, which ran in addition to the *Sunset Limited* until the *Gulf Coast Limited* was discontinued in 1997. While the restored *Gulf Coast Limited* was again successful in terms of ridership, it was ended due to the lack of consistent multi-state funding.[11]

When Amtrak was running on the New Orleans-to-Mobile line in 1996 and 1997, the line had considerably more freight trains than it does today. According to CSX's and NS's 1997 application to acquire Conrail, CSX was operating 20.6 trains a day over the line in 1996, which was projected to increase to 22.7 (without any infrastructure investments) following the acquisition.[12] At that time, Amtrak operated an average of 2.9 trains per day from New Orleans to Mobile: the tri-weekly *Sunset Limited*, which was then scheduled to operate from Mobile to New Orleans, with a scheduled arrival in New Orleans at 12:30 pm, and a daily round trip on a faster schedule (3:10/3:15) than the current schedule Amtrak has proposed for the *Gulf Coast*

[11] *See* Ex. 2, Reply Verified Statement of Jim Blair ("Blair Reply Verified Statement") ¶¶ 5-7.

[12] *See id.* ¶ 8.

service (3:23/3:25).[13] Also during the time Amtrak previously operated on the Gulf Coast corridor, Amtrak worked with CSX to identify and fund certain capital improvements that the parties jointly agreed would improve the service. For example, Amtrak paid for the installation of bi-directional signals and an upgrade to 40 mph on the southbound main line in Gentilly Yard, infrastructure that continues to benefit CSX's freight operations today.[14]

The *Sunset Limited* service was suspended in August of 2005, immediately prior to Hurricane Katrina making landfall along the Louisiana-Mississippi border. Following the destruction caused by Hurricane Katrina, passenger service along the Gulf Coast remained suspended.[15]

Restoration of intercity passenger service would greatly increase mobility for the citizens of the Gulf Coast region by linking the vital and growing metropolitan centers in Alabama, Louisiana, and Mississippi.[16] Restoration of intercity passenger service is also expected to bring significant economic benefits and opportunities to the region, including an estimated $42 million in annual economic activity generated by the service.[17] The Gulf Coast region is home to numerous regional, national, and global tourist destinations and events, including New Orleans' Mardi Gras, Gulf Coast beaches, and casino and gaming resorts. Major League sports teams, NCAA bowl games, cruise terminals with mass-market cruise ship departures and convention opportunities also draw visitors to communities in the region, while military bases and major defense contractor facilities bring business and military travelers.[18]

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[13] *Id.*

[14] *Id.* ¶ 9.

[15] *Id.* ¶ 10.

[16] Ex. 1, Newman Reply Verified Statement ¶ 10.

[17] *Id.* ¶ 11.

[18] *Id.*

Amtrak's attempts to restore intercity passenger rail service to the people of the Gulf Coast are now more than fifteen years old. Amtrak first wrote to CSX in 2006 requesting to discuss the resumption of service.[19] Due to a lack of progress with those discussions, Congress found it necessary to get involved. In both the Passenger Rail Investment and Improvement Act of 2008 (Pub. L. No. 110-432, tit. II, § 226, 122 Stat. 4907, 4934) ("PRIIA") and the Fixing America's Surface Transportation Act of 2015 (Pub. L. No. 114-94, § 11304, 129 Stat. 1312, 1655) (the "FAST Act"), Congress demanded a plan to restore passenger service to the Gulf Coast. In the FAST Act, Congress directed the creation of the Gulf Coast Working Group, to be chaired by the Federal Railroad Administration ("FRA"), and to include Amtrak, the states along the proposed route, the regional transportation planning organizations and metropolitan planning organizations, municipalities, and communities along the proposed route, the SRC (comprised of representatives from Alabama, Louisiana, and Mississippi), and host railroads, including CSX and NS.[20]

Amtrak, CSX, and NS all participated in that congressionally mandated working group, as did representatives from the various groups named above. The working group's evaluation resulted in a report to Congress in July 2017 recommending, among other things, the restoration of twice-daily service between New Orleans and Mobile. Based on a feasibility study conducted by the FRA and Amtrak, the Gulf Coast Working Group Report found that a restored *Gulf Coast* service could commence with $5.376 million in capital investments for station-related improvements and recommended just under $95 million in additional capital improvements to be phased in over time, after the *Gulf Coast* service began operations.[21]

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[19] Ex. 2, Blair Reply Verified Statement ¶ 12.

[20] Section 11304, Fixing America's Surface Transportation Act ("FAST Act," Pub. L. No. 114-94, 129 Stat. 1312, 1655 (2015)).

[21] *See* Ex. 2, Blair Reply Verified Statement ¶ 15, App. C.

CSX refused to participate in that feasibility study. Instead, CSX performed its own study and then asserted that the "necessary improvements for *any* Gulf Coast passenger restoration" would "cost, at a minimum, at least $2 billion."[22] The SRC described CSX's demand for billions of dollars in additional infrastructure as a condition of restoring service as a "veto [of] a passenger rail service supported by the people and leadership of the coastal south."[23] The SRC noted that throughout the Gulf Coast Working Group's process, CSX "demonstrate[d] what can only be understood as an unwillingness to negotiate in good faith and an opposition to bringing back passenger rail service to communities along the Gulf Coast."[24] Indeed, when CSX was asked "if they would be willing to continue to work with the stakeholders of the GCWG to collaborate towards a mutually agreed on determination of cost," CSX's representative "replied no, CSX would not continue to work with the group."[25] CSX instead insisted that "all infrastructure improvements, based on 20-year growth projections, must be completed before they will start the first day of service."[26] When the Gulf Coast Working Group Report recommended to Congress that service to the Gulf Coast should be reinstated, CSX and NS refused to join that recommendation.[27]

Amtrak nonetheless continued to engage with CSX and NS in good faith to find common ground on fair and reasonable terms for restoring the service. In April 2018, Amtrak's then CEO wrote to CSX's CEO requesting CSX's assistance and engagement in finalizing plans to restore

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[22] *See id*. ¶ 17, App. E (emphasis added). While CSX demanded $2 billion for the restoration of *any* Gulf Coast service, CSX's specific estimate for restoration of service between New Orleans and Bay Minette (which is just east of Mobile), was approximately $1.1 billion, as detailed in Appendix C of the CSX HDR Study attached to the Gulf Coast Working Group Report.

[23] *See* Ex. 2, Blair Reply Verified Statement ¶ 17, App. D.

[24] *Id.*

[25] *Id*.

[26] *Id*.

[27] *See id.* ¶ 16.

intercity passenger rail service to the Gulf Coast, offering to promptly designate a negotiating team, and asking for CSX's timely commitment. Then in January 2019, Amtrak agreed to participate in a Rail Traffic Controller ("RTC") modeling study with CSX. After NS insisted that it be part of any RTC modeling study, all three parties executed an agreement in January 2020 to jointly evaluate the restoration of *Gulf Coast* service. The RTC Study Agreement had a term of one year (the "2020 RTC Study").[28]

The 2020 RTC Study was entirely funded through a grant from the FRA, which required that any deliverable include information that would meet FRA's minimum data requirements, including all traffic inputs, all infrastructure inputs using track charts or other FRA-approved form, and various forms of simulation outputs. During the 2020 RTC Study, Amtrak repeatedly requested that CSX and NS share with it, as a participant in the study, key information that would make it possible both to validate the reliability and reasonableness of the modelling and to secure future federal funding for improvements on the right of way. Among other things, Amtrak requested such basic information as the number and type of trains operating over the simulated territory; the average operating characteristics of trains by train type; the basic track configuration drawn at a linear scale; the size and type of all turnouts; the grade crossing locations; and train performance calculator outputs for passenger trains.[29]

CSX and NS refused to provide that information, claiming the information was confidential and that Amtrak and FRA should find the study's outcome valid and reliable without seeing the inputs used. With the exception of certain sanitized and heavily redacted data summaries, Amtrak

[28] For further detail on the 2020 RTC Study, *see generally* Ex. 2, Blair Reply Verified Statement ¶¶ 20-21.

[29] *See id.* ¶¶ 22-23.

received no underlying data from CSX and NS.[30] FRA expressed its dissatisfaction with the lack of transparency in the 2020 RTC Study, stating: "[W]ithout a thorough understanding of all the operationally relevant inputs, the simulation becomes a completely opaque black box, and the outputs become meaningless."[31] Given CSX's and NS's repeated refusal to share basic data with Amtrak, when the one-year RTC study agreement expired in January 2021, Amtrak elected not to renew that agreement.[32]

Following expiration of the study, in February 2021, Amtrak wrote to CSX and NS asking them to agree to permit the *Gulf Coast* service to commence on or about January 1, 2022, in accordance with a specific twice-daily schedule proposed by Amtrak and on the financial terms already set forth in the parties' existing operating agreements.[33] CSX and NS did not agree, thus prompting Amtrak's application to the Board under Section 24308(e).[34]

ARGUMENT

I. CSX AND NS HAVE NOT MET THEIR BURDEN OF SHOWING THEIR FREIGHT TRANSPORTATION WOULD BE "IMPAIRED UNREASONABLY" BY THE PROPOSED PASSENGER SERVICE.

Section 24308(e) places a high burden on CSX and NS. The only way CSX and NS can overcome the presumption that the Board should order the proposed service is to prove that resumption of Amtrak's *Gulf Coast* service in 2022 will "impair unreasonably" CSX's and NS's freight transportation.[35] This is the Board's first proceeding under Section 24308(e), and thus the first opportunity for the Board to define what it means for freight transportation to be "impaired

[30] *Id*. ¶ 26.

[31] *Id*. ¶ 25, App. J.

[32] *Id*. ¶ 27.

[33] *Id*. ¶¶ 28-29, App. K.

[34] *Id.* ¶ 32.

[35] 49 U.S.C. § 24308(e).

unreasonably." The standard established by the Board in this case will govern future cases as Amtrak implements its national strategy to grow passenger service and provide needed transportation connections throughout the country.[36] The opening evidence offered by CSX and NS does not even come close to demonstrating that their freight transportation will be impaired unreasonably by two daily round-trip, regularly scheduled passenger trains, and therefore the Board should order that Amtrak may bring passenger service back to the Gulf Coast corridor.

A. THE MEANING OF "IMPAIR UNREASONABLY" IS CLEAR FROM THE STATUTE'S PLAIN TEXT, CONGRESSIONAL PURPOSE, AND DECISIONS INTERPRETING SIMILAR STANDARDS.

When deciding the meaning of the "impair unreasonably" standard in Section 24308(e), the Board should look to the statute's plain language, the congressional history surrounding the statute's enactment, and decisions applying similarly worded standards. Each of these approaches confirms that the standard is an exacting one and requires far more than CSX's and NS's assertion that they need demonstrate only that the *Gulf Coast* service would "degrade" their freight transportation.

1. The Board Should Apply the Plain Language of Section 24308(e) and Give its Terms Their Ordinary Meaning.

"The point of departure in all cases involving statutory construction is the plain language of the statute, expressed by the ordinary meaning of the words used."[37] The standard Congress set under Section 24308(e)—requiring that CSX and NS prove that the *Gulf Coast* service would "impair unreasonably" freight transportation—is clear on its face and the Board should give this language its ordinary meaning.

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[36] *See generally* Newman Reply Verified Statement.

[37] *Lloyd Lundstrom and Harry Francheschi d/b/a/ Paradise Trucking Serv.*, Docket No. MC 192729 (ICC served Mar. 14, 1988).

CSX and NS must prove not only that their freight transportation will be *impacted* by the *Gulf Coast* service, but that freight transportation will be *impaired* by such service, which means "diminished in function or ability; lacking full functional or structural integrity." *Impaired*, Meriam-Webster Online Dictionary, https://www.merriam-webster.com/dictionary/impaired (last visited Nov. 30, 2021). Moreover, any impairment to freight transportation must be *unreasonable*, meaning the impairment is "clearly inappropriate" or "excessive." *Unreasonable*, Meriam-Webster Online Dictionary, https://www.merriam-webster.com/dictionary/unreasonable (last visited Nov. 30, 2021); *see also Unreasonable*, Webster's Third New International Dictionary 2507 (3d ed. 1993) ("absurd," "inappropriate," and "exceeding the bounds of moderation").[38] The host railroad's burden under Section 24308(e) is not met simply by showing potential delays or inconvenience to freight transportation.

Strikingly, CSX and NS do not argue for any definition at all of what "impair unreasonably" means, simply asserting that Amtrak's Gulf Coast service will "degrade freight service."[39] But "degradation in service" is not the standard. It is found nowhere in the statute, nor in any logical understanding of what it means for freight service to be "impaired unreasonably." CSX and NS simply invented this standard without any basis (in statute, in case law, or in reason), or even any *argument*, as to why the Board should apply it.

Section 24308(e)'s plain language requires CSX and NS to show that resumption of the Gulf Coast service impairs freight transportation in a way that is "clearly inappropriate" or

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[38] The Board has relied on Meriam-Webster online definitions to guide its analysis in recent instances. *See, e.g.*, *Final Offer Rate Review Expanding Access to Rate Relief*, Docket No. EP 755 (STB served Nov. 15, 2021); *Diana Del Grosso, Ray Smith, Joseph Hatch, Cheryl Hatch, Kathleen Kelley, Andrew Wilklund, and Richard Kosiba—Petition for Declaratory Order*, Docket No. FD 35652 (STB served July 31, 2017).

[39] *See* CSX and NS Opening Evidence at 13 (asserting that Amtrak must "pay its own way such that passenger service does not degrade freight service"); *id.* at 15-16 (contending that "[r]equiring freight rail customers to accept degraded service" would violate the statute); *id.* at 17 (concluding that Amtrak "has no right to impose a cross-subsidy on other freight customers by degrading service").

"excessive." It certainly requires more than asserting that freight transportation may be, in some vague manner, "degraded."

2. Congress's Purpose in Enacting Section 24308(e) Reinforces the Plain Meaning of "Impair Unreasonably."

The plain language meaning of Section 24308(e) must also be read in light of its congressional purpose. Congress enacted Section 24308(e) in 1980 in the midst of a national energy crisis. At the time, Congress was encouraging Amtrak to identify and develop rail corridors throughout the country with the greatest potential to attract substantial ridership, produce significant energy savings, and provide cost-efficient intercity passenger rail service.[40] In legislating to achieve that purpose, Congress explicitly identified the very issue presented by this case: Congress was "concerned about the lack of cooperation private freight railroads have demonstrated toward Amtrak."[41]

Congress identified specific instances in which freight railroads had refused to cooperate with Amtrak's attempts to add additional trains in areas well-suited for passenger service. These included the Department of Justice having sued one host railroad "for lengthy delays passenger trains have encountered as a result of [the host's] according priority of freight trains over passenger trains in clear violation of the law."[42] The Committee also noted another "example of lack of railroad cooperation with Amtrak" in the refusal of a different host to permit Amtrak to operate an additional passenger train in the densely populated Los Angeles to San Diego corridor.[43] Congress not only recognized the urgency and impact of this issue on its national objectives, but sought to

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[40] *See* Passenger Railroad Rebuilding Act of 1980, Pub. L. No. 96-254 (1980) (noting that the Act was aimed at "requir[ing] the Secretary of Transportation to begin development of energy efficient rail passenger corridors," among other purposes).

[41] H.R. Rep. No. 96-839, at 8.

[42] *Id.*

[43] *Id.*

remedy it by enacting Section 24308(e): "To enable Amtrak to secure expeditious relief from such intransigence, the reported bill contains a provision which enables Amtrak to obtain an order from the Secretary permitting the operation of additional passenger trains over the lines of freight railroads which have contractual agreements with Amtrak."[44]

Given the importance of expeditious relief, the House of Representatives proposed to *require* the Secretary to grant any and all of Amtrak's applications to operate additional trains.[45] Ultimately, after the House and Senate conferred, Congress elected to give the Secretary (now the Board) discretion to deny an application, but only where the freight railroads could prove that they would suffer "serious adverse impacts" from granting Amtrak's application. The House Conference Report explains the decision:

> The Congress is concerned that in the past Amtrak's efforts to add or modify services have involved protracted arbitration proceedings and have often prompted requests by the railroads for inordinate capital improvements, which is paid from appropriations authorized for Amtrak's operating expenses. It is important that Amtrak have available to it an expedited procedure for making necessary modifications or additions to its operations. The Conferees have agreed that, rather than being absolutely constrained, the Secretary should have discretion to take into account any serious adverse impacts on a railroad's freight operations which may result from additional service. However, it is the purpose of this provision to ensure that such service may be added where no significant impairment of freight operations is demonstrated.[46]

As this language shows, the entire purpose of Section 24308(e) would be frustrated if a freight railroad could block additional passenger trains from ever operating on a corridor without a

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[44] *Id.*

[45] See H. Rep. 96-839, at 8 (proposing the addition of what is now subsection (e) to provide that "[u]pon receipt of an application from [Amtrak] in any situation where [Amtrak] is unable to obtain a satisfactory, voluntary agreement from a rail carrier for operation of additional trains on the rail lines of that rail carrier, the Secretary shall order such rail carrier, within 60 days, to permit or provide requested operation of Amtrak trains over any of its rail lines on schedules based upon the fastest legally permissible elapsed running times for operation of a passenger train over such rail lines." (emphasis added)).

[46] H.R. Rep. No. 96-1041, at 42 (Conf. Rep.).

showing of unreasonable—i.e., "significant" and "serious"—impairment of freight operations.[47] CSX and NS do not even mention the congressional purpose behind Section 24308(e).

3. Decisions Interpreting Similar Standards Further Reinforce the Plain Meaning of "Impair Unreasonably."

Although this is the Board's first decision interpreting the "impair unreasonably" standard of Section 24308(e), the Board has held that analogous standards in other statutes require proof of more than delay to or degradation in freight transportation. For example, under Section 11102, the Board may require terminal facilities owned by one carrier to be used by another rail carrier "if the Board finds that use to be practicable and in the public interest without substantially impairing the ability of the rail carrier owning the facilities or entitled to use the facilities to handle its own business."[48] The Board has "set a fairly high bar for concluding that operations issues rise to the level of substantial impairment."[49] As the Board has noted, "a certain level of interference and delay is common and expected in the railroad industry."[50] Therefore, when applying the "substantial impairment" standard under Section 11102, the Board has granted trackage rights where it has "recognize[d] that occasional delays will occur" and that the delays "will vary," but use of the track would cause "no significant operating problems for any of the carriers involved" and would "not substantially impair the ability of [the host railroad] to conduct its own business."[51]

One of the few courts interpreting similar "unreasonable impairment" language also concluded, in the environmental context, that the standard requires much more than showing "only

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[47] *Id.*; 49 U.S.C. § 24308(e).

[48] 49 U.S.C. § 11102(a).

[49] *BNSF Railway Company – Terminal Trackage Rights – Kansas City Southern Railway Company & Union Pacific Railroad Company*, Docket No. FD 32760 (Sub-No. 46), slip op. at 16-17 (STB served July 5, 2016).

[50] *Id.* at 17 n.17.

[51] *Union Pac. Corp., Pac. Rail Sys., Inc. & Union Pac. R.R. Co.-Control-Missouri Pac. Corp. & Missouri Pac. R.R. Co.*, 366 I.C.C. 462, at *86 (1982).

some level more than [a] de minimus" impairment.[52] As the court explained, if "unreasonable" impairment simply meant *any* impairment at all, then "the *only* evidence a defendant would be able to offer to rebut [the showing] would be evidence that there was *no* . . . impairment."[53] "No impairment whatsoever" is the standard CSX and NS propose here, which the Board should reject.

B. CSX and NS Have Not Met Their Burden Under the Statutory Standard.

Applying the correct statutory standard, CSX and NS have not demonstrated that their freight transportation would be impaired unreasonably by Amtrak's Gulf Coast service. CSX and NS claim that they have established, through their RTC study, that reinstating the Gulf Coast service will unreasonably impair their freight operations in 2022 and beyond. Critically, however, "unreasonable impairment" is not the standard that CSX and NS used for their RTC modeling. Instead, CSX and NS modeled to a standard in which "*no* aggregate freight service delays would result, *no* schedules would be adjusted, and passenger service will achieve a 95% OTP rate."[54] In other words, as they themselves state, their RTC modeling was designed specifically to identify the level of infrastructure purportedly necessary for them to "run unimpaired" by Amtrak along the Gulf Coast.[55]

Of course, if Amtrak built an entirely new track in parallel to CSX's and NS's track, then CSX and NS certainly could "run unimpaired." But that is not what Congress intended. Indeed, the potential for some delays in transporting goods due to the need to transport people is the whole premise of the deal Congress struck with the freight railroads when creating Amtrak. As discussed

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[52] *City of Waterbury v. Town of Washington*, 800 A.2d 1102, 132-33 (Conn. 2002) (emphasis omitted).

[53] *Id.*; *see also id.* at 1135 (explaining that "[i]f the term 'unreasonable' meant only anything more than de minimus, the act of dumping any filth or pollution into a watercourse necessarily would be unreasonable").

[54] CSX and NS Opening Evidence at 49 (emphasis added; footnotes omitted).

[55] *Id.* at 52 (arguing that "any order by the Board authorizing new passenger service on the Gulf Coast must include a requirement for the requisite investment by Amtrak to support the infrastructure improvements needed to permit freight traffic to run unimpaired pursuant to 49 U.S.C. § 24308(e)(2)(A)").

above, in the Rail Passenger Service Act of 1970, "Congress struck a fundamental bargain: in exchange for relieving the freight railroads of their obligation to provide passenger service—service that produced losses at levels threatening the viability of their freight operations—Congress created Amtrak and directed the railroads to permit it to operate passenger trains over their lines," and "to give those trains preference over freight service."[56] In other words, freight railroads were relieved of the financial obligation to provide passenger rail, but they were not relieved of their obligation to provide for passenger rail on their tracks.

Thus, as the Board has recognized,[57] Congress implemented a statutory scheme under which Amtrak is given certain rights even where those rights result in delays to freight operations. Section 24308(c) gives Amtrak "preference over freight transportation in using a rail line, junction, or crossing" even where exercise of that preference results in some delay to freight operations. 49 U.S.C. § 24308(c). Given that Congress contemplated that freight railroads—in exchange for being relieved from any financial obligation to provide intercity passenger rail service themselves—would reasonably encounter some delay in freight operations as a result of the statutory rights granted to Amtrak, the mere possibility of potential delays or slight degradations in freight operations claimed by CSX and NS do not meet their burden of demonstrating that the *Gulf Coast* service will unreasonably impair their freight transportation.

In any event, the argument CSX and NS offer as proof of impairment consists simply of a series of percentage changes to freight traffic, with no context in which to evaluate the seriousness of the asserted impairment. With respect to the 2019 Passenger Case in the modeling—which appears to be CSX's and NS's attempt to model adding passenger service in 2022 with no

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[56] *Application of 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, at *3 (1998).

[57] *See id.*

additional capital improvements—they claim that "adding the proposed passenger trains . . . [will increase] freight delays by 22.7%, reduce train speeds by 4.5%, increase dispatching conflicts by 38.1%, increase recrews by 37.7%, and increase the variability of service."[58]

Even setting aside that the provenance of these numbers is faulty (as discussed *infra* in Part III), these numbers do not offer useful evidence regarding the real-world impact on CSX's and NS's ability to run their freight transportation business. For example, if current freight delays are 10 minutes, a 22.7% increase would put freight delays at a little over 12 minutes. CSX and NS have not offered evidence that this minor increase in delay rises to the level of an unreasonable impairment to their freight service. Similarly, if freight train speeds currently are averaging 30 miles per hour, a 4.5% decrease in those speeds means trains would run at just under 29 miles per hour. Here too, CSX and NS have not offered any evidence of why this should be considered an "unreasonable impairment" of service. Without such evidence, the Board should not assign any weight to the assertion—made by CSX and NS without citing anything—that adding the *Gulf Coast* service would have a "devastating effect on the customers that rely on CSXT's and NSR's rail service."[59]

II. THE RTC STUDY—AND THE CONCLUSIONS DERIVED FROM IT—ARE FAULTY AND DO NOT MEET CSX'S AND NS'S HIGH BURDEN OF DEMONSTRATING UNREASONABLE IMPAIRMENT.

CSX and NS rest their entire case of unreasonable impairment on their RTC study. However, an RTC model's outputs are only useful if they are based on accurate inputs. "Stated differently, if the base case inputs are not accurate, the entire exercise is flawed and the results unreliable."[60] As demonstrated in the Reply Verified Statement of Thomas D. Crowley and

[58] CSX and NS Opening Evidence at 5, 6, 41, 43.

[59] *Id.* at 16.

[60] Ex. 3, Reply Verified Statement of Thomas D. Crowley and Daniel L. Fapp ("Crowley and Fapp Reply Verified Statement") at 9.

Daniel L. Fapp of L.E. Peabody & Associates, Inc., CSX's and NS's RTC base case inputs were not accurate and therefore the RTC Study cannot be relied on as the basis for a finding of unreasonable impairment.

At the outset, CSX and NS spend multiple pages of their brief attempting to establish RTC modeling as "the right methodology" for modeling the introduction of passenger service.[61] Amtrak does not dispute that RTC is a valid methodology that can be a useful modeling tool and indeed, Amtrak has participated in RTC modeling in the past and currently uses RTC modeling for many Northeast Corridor analyses. But obtaining useful outputs from RTC modeling depends upon having correct, transparent, and agreed-upon inputs. That is the approach Amtrak employs in studies conducted with its rail and transit partners. Here, the inputs were not correct, transparent, or agreed-upon and the RTC modeling therefore is not useful. Tellingly, CSX and NS point out that the inputs used for this RTC study are simply the "same inputs provided for the joint RTC study that Amtrak unilaterally refused to renew."[62] This statement underscores why Amtrak's decision not to renew that study was correct. As Amtrak suspected all along, the inputs that CSX and NS were providing to the modelers—while repeatedly refusing Amtrak's requests to share those same inputs with Amtrak—were not based on real-world conditions as is detailed by Messrs. Crowley and Fapp.[63]

CSX's and NS's modelers developed six primary RTC cases that purportedly attempted to simulate current and future rail operations along the Gulf Coast: (1) Base 2019; (2) Passenger 2019; (3) Build 2019; (4) 2039 Base; (5) 2039 Passenger; and (6) 2039 Build.[64]

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[61] CSX and NS Opening Evidence at 17-21.

[62] *Id*. at 2.

[63] *See generally* Ex. 3, Crowley and Fapp Reply Verified Statement.

[64] *See id.* at 9.

CSX's and NS's modelers claim that the base case for the year 2019 ("Base 2019") simulates how CSX and NS operate in the absence of reinstated Amtrak service between New Orleans and Mobile. They then developed similar cases for an estimated level of operations 20 years in the future. Specifically, they developed a base case for the year 2039 ("2039 Base") in which they attempt to simulate future CSX and NS rail operations taking into consideration projected infrastructure changes along the Gulf Coast route. They then add the proposed Amtrak service to their expected future operations ("2039 Passenger") that they claim allows them to assess the impact of passenger rail service on future CSXT and NS operations. CSX's and NS's modelers then add the additional infrastructure they claim is necessary to allow CSX and NS to operate at the same future operating levels before Amtrak trains were added ("2039 Build"). CSX's and NS's modelers then attempted to simulate a 2019 passenger case ("Passenger 2019") where Amtrak service is reinstated on the current rail infrastructure to address Amtrak's request to start service in 2022. After modeling the Passenger 2019 case, they added a subset of the 2039 additional track infrastructure that they allege is necessary to accommodate Amtrak without any decline in CSX and NS operations ("Build 2019").[65]

A. The RTC Model's Inputs Do Not Reflect Reality.

If the base case is flawed, the whole model is flawed. Here, the base case was deeply flawed. As Messrs. Crowley and Fapp found: "[T]he 2019 RTC Base Case modeled bears little resemblance to real-world CSXT and NS operations and contains inputs that were manufactured to limit, to the greatest extent possible, the ability of the issue corridor to handle any increase in rail traffic. RTC Model inputs included those that were made-to-order extreme values and bear no

[65] *See id.* at 9-10.

resemblance to reality and other inputs that should have come from actual CSXT and NS data for an actual two (2) week period in 2019."[66]

The CSX and NS modelers state that they relied upon data provided by CSX and NS that reflected the railroads' September 2019 to November 2019 operations.[67] They also state that they included a variety of freight train types in their RTC cases to provide a sufficient level of detail to accurately portray realistic train operations, including, but not limited to, through trains, local trains, foreign trains and yard trains.[68] The 2021 "RTC Report states that the "[f]inal dates were agreed upon as a more representative data set of typical operations."[69] However, as Messrs. Crowley and Fapp found, the final dates relied upon by the modelers are, in fact, two months of data that they "manipulated" to create two weeks of input to suit their needs using triangular distribution methods, i.e., a lack of knowledge distribution.[70] "It is hard to imagine that the railroads' own witnesses had limited sample data and needed to rely upon 'inspired guesses' to determine the appropriate actual dates to use. There is no basis on which they can claim, without any analysis or proof, that their 2019 case runs represented 2019 rail operations."[71] As just some of the examples of the issues found by Messrs. Crowley and Fapp:

- The number of trains CSX's and NS's modelers included in their 2019 Base Case was nothing like the actual number of CSX and NS trains operated by the railroads in September 2019 to November 2019. Without explanation, the modelers increased the amount of real-world freight trains provided to them by ***257%***.[72]
- The 2019 Base Case RTC simulation includes hundreds of unnecessary "trains" that are unsupported by the provided data and perform little function except to create congestion in the RTC model. For example, the model included 41 of a certain type of train per day, where the

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[66] *See id.* at 3.

[67] CSX and NS 2021 RTC Report at 45.

[68] Ex. 3, Crowley and Fapp Reply Verified Statement at 11.

[69] CSX and NS 2021 RTC Report at 23 n.17.

[70] Ex. 3, Crowley and Fapp Reply Verified Statement at 11.

[71] *Id.* at 12.

[72] *Id*. at 3, 14-15.

dispatch data provided by CSX and NS showed there was actually fewer than one of that type of train per day.[73]

- A comparison of the 2019 freight train sizes used in the 2019 Base Case RTC model shows that "many of the 2019 Base Case RTC trains have no counterpart in the real world."[74] Messrs. Crowley and Fapp found that there are dozens of train types included in the model that have maximum train sizes that have no link to actual train sizes. The model is not based "typical" or "average" CSXT freight trains. Rather, in some cases, they used actual train length data and in some cases they did not. No explanation is given for this approach.[75]

- The 2019 Base Case RTC model also overstates the number of yard trains by assuming that CSX operated at least one train of each train symbol each day of the week in both yards. But a review of CSX dispatch data shows that CSX does not actually operate all of these yard trains as often as the model indicates. The fact that the RTC model's yard train count differs from actual dispatch data would lead to a significant overstatement in RTC statistics.[76]

- The 2019 Base Case RTC model also gets bridge data wrong. For example, the model assumes a certain number of train movements over the Alomanster Avenue Bridge every day of the week. But the actual number of trains that operated over the Alomanster Avenue Bridge during the September 2019 to November 2019 period according to the Port of New Orleans daily shift reports is far lower than the assumptions made by the model.[77]

Overall, as Messrs. Crowley and Fapp state, the RTC model's "claims that the simulation inputs are conservative and representative of typical operations" are "demonstrably false."[78] "In fact, many of the RTC simulation inputs proffered by [the modelers] are so unusual and out of the norm of RTC modeling, it is evident that they deliberately produced a model that included unrealistic congestion, underutilized infrastructure, unrealistic blockages, unrealistic operations, overextended dwell times, and inefficient dispatching options."[79]

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[73] *Id.* at 16-17.

[74] *Id.* at 17.

[75] *Id.*

[76] *Id.* at 19-22.

[77] *Id.* at 22-24.

[78] *Id.* at 45.

[79] *Id.*

B. The RTC Model's Assumptions Were Designed to Produce Inflated Infrastructure Demands.

CSX's and NS's modeling assumptions also resulted in grossly overstated infrastructure demands. As Messrs. Crowley and Fapp explain:

> In any RTC simulation, there are dozens of settings within the RTC model that can be adjusted that will substantially change the results even if the infrastructure and trains in the model remain unchanged. For example, RTC model users can adjust the dispatch logic to instruct the RTC model how to handle conflicts within the model, how to prioritize train scheduling when conflicts are encountered, which types and locations of track are acceptable locations to stop a train, and even the walking speed of train crew members. These settings, often overlooked, can cause a simulation to succeed or fail. [The modelers] unnecessarily adjusted many of these settings, negatively affecting the performance of every train in the simulation.[80]

One of the primary settings that CSX and NS built into their model that resulted in inflating infrastructure demands was the requirement that Amtrak would have to achieve a customer on-time performance rate (COTP) of 95%.[81] The metric, of course, under the Federal Railroad Administration's *Final Rule on Metrics and Minimum Standards for Intercity Passenger Rail Service* is 80% COTP, meaning that 80% of customers will arrive within 15 minutes of their scheduled arrival time.[82] CSX and NS offer *no evidence* supporting why or how the 95% COTP would, in practice, transfer to the real-world requirement of 80% COTP.[83] And there is no indication that CSX and NS used any actual, historical train movement times as opposed to the hypothetical ones they created for purposes of the 2021 RTC study to factor in the events about which they warn necessitated the 95% COTP metric. Moreover, CSX's claim that compliance with the statutory preference requirement requires this extraordinarily high level of COTP is

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[80] Ex. 3, Crowley and Fapp Reply Verified Statement at 45-46.

[81] *See* CSX and NS Opening Evidence at 49.

[82] *Metrics and Minimum Standards for Intercity Passenger Rail Service*, 85 Fed. Reg. 72971 (Nov. 16, 2020) (to be codified at 49 C.F.R. pt. 273).

[83] Ex. 3, Crowley and Fapp Reply Verified Statement at 36.

inconsistent with CSX's statement to the Board in the currently pending proceeding in which CSX is seeking authority to acquire Pan Am Railway that CSX's current practices in dispatching Amtrak trains—which produce a much lower COTP—"ensure[]" compliance with the preference requirement.[84] Because CSX and NS did not even use the correct COTP assumptions to determine the impact of passenger rail, they cannot possibly have met their burden to show that an 80% COTP would not be achievable by the *Gulf Coast* service.[85] In fact, Amtrak's experience on other routes shows that 80% COTP can be reliably achieved assuming a cooperative host railroad that provides Amtrak with preference as statutorily required.[86]

CSX and NS also built into the RTC model the assumption that Amtrak trains would never use a siding, supposedly because this is what is required to comply with Amtrak's statutory preference rights.[87] However, preference does not mean that Amtrak never uses a siding.[88] A siding is simply track, which can be used much the same way any track can be used. The RTC model's elimination of the use of sidings for Amtrak artificially skews the model. In many cases, utilizing a siding permits an Amtrak train to avoid freight interference, or to reduce delay as a result of track blockages due to local switching. Utilizing sidings is essential for meeting and

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[84] Verified Statement of Mr. Andy Daly at 17 (Ex. 13-C), *Amended and Supplemented Application of CSX Corp. Transp., Inc., et al.—Control and Merger—Pan Am Sys., Inc., Pan Am Rys., Inc., Boston and Maine Corp., Maine Cent. R.R. Co., Northern R.R., Pan Am Southern LLC, Portland Terminal Co., Springfield Terminal R.R. Co., Stony Brook R.R. Co., and Vermont & Massachusetts R.R. Co.*, STB Docket No. 36472 (filed July 1, 2021).

[85] To the extent 80% COTP is not reliably achievable on the *Gulf Coast* route, CSX and NS potentially would be able to pursue any statutory remedies available to them. The answer is not to model artificially high levels of COTP and then use the results to make inflated infrastructure demands as a condition for restarting the service.

[86] Ex. 2, Blair Reply Verified Statement ¶ 38.

[87] *See* CSX and NS Opening Evidence at 34-35 ("The 2021 Gulf Coast RTC Model also assumes that Amtrak trains would receive preference over freight traffic" such that the model "avoids placing Amtrak trains in sidings; instead, the model has been designed to dispatch freight trains into sidings when they meet Amtrak trains.").

[88] CSX and NS claim that it is Amtrak's "public position" that Amtrak will not take a siding. But the materials they cite for this proposition do not actually support this claim. *See id.* at 35 & n.98.

passing trains on corridors comprised mostly of single track. Indeed, the proposed Amtrak *Gulf Coast* schedules specifically contemplated the morning and afternoon passenger trains meeting at Claiborne siding.[89] Preference requires railroads to do whatever will avoid (or minimize if unavoidable) delays to Amtrak trains caused by freight trains. In most cases that means putting the freight train in the siding, since trains must reduce speed when entering/exiting sidings and sidings often have slower speeds than the main line track. However, if an Amtrak train is meeting a freight train that is too long to fit into the siding, having the Amtrak train take the siding could minimize Amtrak delays. This is because the Amtrak train can operate faster through the siding and the freight train waiting on the main line track can proceed forward at the faster main line speed once the Amtrak train enters the siding, so the freight train will no longer be blocking the turnout at the end of the siding when the Amtrak train reaches the turnout.[90]

CSX's and NS's settings for COTP and preference result in vastly inflated infrastructure demands. For example, given the assumption that there will be near zero delays to Amtrak trains, the model implausibly predicts that Amtrak trains frequently will arrive early at intermediate stations and thus have to wait on the main line for scheduled departure time. That assumption is then used to justify the claim that an 8,500-foot siding is necessary at Bay St. Louis, so an early Amtrak train will not occupy the main line track.[91]

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Overall, the utility of RTC modeling outputs depends entirely on the quality of the underlying inputs and assumptions. Because the underlying inputs and assumptions used in CSX's and NS's RTC study are faulty and unsupported as is thoroughly documented in the Reply Verified

[89] Ex. 2, Blair Reply Verified Statement ¶ 41.

[90] *See id.*

[91] CSX and NS RTC Report at 63.

Statement of Messrs. Crowley and Fapp, the 2021 RTC study results are likewise unreliable and unsupported and cannot form the basis of CSX's and NS's evidence that their freight transportation would be unreasonably impaired by the *Gulf Coast* service.

III. CSX'S AND NS'S INFRASTRUCTURE DEMANDS ARE LEGALLY AND FACTUALLY UNSUPPORTED.

Based on their faulty RTC modeling, CSX and NS set forth a demand for approximately $440 million in infrastructure improvements before they will allow the Gulf Coast service to run. Although this is a significant shift from their prior demands of more than $1 billion, it is still both legally and factually unsupported.

A. Amtrak Need Not Pay for Infrastructure Improvements Where There Is No Unreasonable Impairment and Unreasonable Impairment is the Only Issue Before the Board.

Legally, Section 24308(e) requires that once the Board finds that additional passenger trains would not cause an unreasonable impairment to freight transportation, the Board simply should issue its order "allowing Amtrak to provide for the operation of additional trains over a rail line[s]" of CSX and NS within 60 days of the Board's order. 49 U.S.C. § 24308(e). The Board should then close this proceeding. Absent a finding of unreasonable impairment, Congress did not contemplate that the Board would order the construction of extensive infrastructure improvements as part of the expedited proceeding it outlined in Section 24308(e). Indeed, the statute sets a 60-day clock from the time of the Board's order to the start of service, which clearly indicates that major infrastructure projects were not part of the calculus. As it does with its host railroads on any line over which it operates, Amtrak fully intends to work with CSX and NS to implement capital projects over time that will result in improved safety, reliability, and efficiency. Indeed, there is already $66 million in federal and state capital funds set aside to do exactly this for the *Gulf Coast* service. But ordering the construction of capital projects is not part of the Board's charge under Section 24308(e).

Under Section 24308(e), the Board must determine only whether Amtrak's proposed additional trains "would impair unreasonably the freight transportation of the rail carrier."[92] The litany of "additional factors" CSX and NS claim the Board should consider, such as impacts on commuter passenger service; the interplay between the passenger and freight plans of various states; and the viability of CSX's customers operations, are not relevant here.[93] None of these "additional factors" appear in Section 24308(e), and expanding the Board's inquiry to include every conceivable and hypothetical interest would negate the intent of the statute, which was to ensure an expeditious remedy for passenger rail expansion that puts the burden on the host railroad to demonstrate impacts to its own freight transportation.

CSX and NS assert that their demands under Section 24308(e) are justified because Amtrak purportedly must "pay all costs associated with passenger service," for which they cite cases decided under Section 24308(a).[94] But under Section 24308(e), where the parties already "have an agreement that establishes the compensation Amtrak will pay the carrier for additional trains provided under an order under this subsection," the Board need not resort to Section 24308(a) or play any role in deciding compensation.[95] Here, the parties already have an agreement that establishes the compensation Amtrak will pay CSX and NS for additional trains. Section 5.1 in Amtrak's Operating Agreements with both CSX and NS already covers the terms of compensation for any "additional or modified" service requested by Amtrak.[96] It was pursuant to those terms of compensation that Amtrak requested CSX and NS allow the *Gulf Coast* service to run in January

[92] 49 U.S.C. § 24308(e).

[93] CSX and NS Opening Evidence at 12 n.19.

[94] CSX and NS Opening Evidence at 14.

[95] 49 U.S.C. § 24308(e)(3).

[96] Ex. 2, Blair Reply Verified Statement ¶ 28.

of 2021.[97] Thus, CSX and NS are incorrect to state that "there are other terms and conditions for this service that will need to be negotiated by the parties, including maintenance and operating costs."[98]

CSX's and NS's related argument that paying anything less than "full costs" for the service would constitute a prohibition on cross-subsidization of passenger rail by freight rail is likewise misplaced.[99] CSX cites no support for that alleged prohibition. Instead, it cites to a 2004 Board decision applying the stand-alone cost test to a challenge to the reasonableness of rates, where the rate at issue cannot be higher than needed to cover all the carrier's costs, "including a reasonable return on investment."[100] But Amtrak is required by statute to pay incremental costs, not "all costs," and incremental costs do not include items such as a return on the freight railroad's investment.[101] CSX and NS fare no better with their "pay all costs" argument by citing to testimony from congressional hearings preceding the adoption of the Rail Passenger Service Act, ignoring the later amendment that made explicit that Amtrak need only pay incremental costs.[102]

Incremental costs are not relevant in this proceeding. But even if they were, the Board has made clear that incremental costs under Section 24308(a) are only "those costs that [the host railroad] has *actually incurred*," and, importantly, that they "do not include costs that [the host

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[97] *Id.*

[98] CSX and NS Opening Evidence at 11.

[99] *Id*. at 14.

[100] *PPL Montana LLC v. Burlington Northern & Santa Fe Ry. Co.*, Docket No. 42054 (served Aug. 31, 2004).

[101] *See Application of Nat'l R.R. Passenger Corp Under 49 U.S.C. 24308(a)—Canadian Nat'l Ry. Co.*, Docket No. FD 35743 at *22 (STB served Aug. 9, 2019).

[102] *Compare* CSX and NS Opening Evidence at 15 n.26 *with* Amtrak Improvement Act of 1973, Pub. L. No. 93-146, § 10, 87 Stat. 548, 552 (1973).

railroad] cannot *specifically and verifiably quantify*."[103] CSX's and NS's arguments about hypothetical costs they might incur due to hypothetical delays that might (or might not) happen in a hypothetical world that might (or might not) exist in 2039 are certainly not "actually incurred" or "specifically and verifiably quantified" costs. Simply put, there is no basis, in statute or in precedent, to require Amtrak to pay for CSX and NS's wish list of infrastructure projects or any other hypothetical "costs" simply because CSX and NS would rather Amtrak not impact their operations at all.[104] Indeed, CSX and NS appear to insist that Amtrak subsidize infrastructure to account for decisions CSX and NS may voluntarily make in the future, for example demanding that Amtrak pay for lengthened sidings in the event CSX and NS decide to operate even longer trains in the future.

Nonetheless, while Amtrak believes that a finding of no unreasonable impairment ends this matter, Amtrak recognizes that in the Board's order denying CSX and NS's motion to dismiss, the Board noted that it "expects the parties will detail any infrastructure that they consider necessary for Amtrak to operate additional trains by its proposed start date as well as infrastructure needed in the future to factor in anticipated growth in traffic."[105] CSX and NS have essentially ignored the Board's request to differentiate between what is required to start service versus what may be required in the future, stating that they would "withdraw their objection to Amtrak's proposed new

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[103] *Application of Nat'l R.R. Passenger Corp Under 49 U.S.C. 24308(a)—Canadian Nat'l Ry. Co.*, Docket No. FD 35743 (STB served Aug. 9, 2019) (emphasis added). The other decision CSX and NS rely on for their "pay all costs" claims—*Application of 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 (1998)—likewise does not support their argument. The host railroad made the same arguments, relying on the same precedent in *Application of Nat'l R.R. Passenger Corp. Under 49 U.S.C. 24308(a)—Canadian Nat'l Ry. Co.*, Docket No. FD 35743 (STB served Aug. 9, 2019). But the Board found that "[i]f costs are not specific, verifiable, and quantifiable, it would be speculation to permit [a host railroad] to collect such amounts, for there would be an insufficient basis on which the amount of the costs could reasonably be determined."

[104] *See* CSX and NS Opening Evidence at 22-23.

[105] *Application of the Nat'l Passenger R.R. Corp. Under 49 U.S.C. § 24308(e)—CSX Transportation, Inc., and Norfolk S. Ry. Co.*, No. FD 36496, slip op. at 7 (STB served Aug. 6, 2021).

service" only "if Amtrak agreed to fund and construct the full slate of Proposed Passenger Infrastructure"—14 projects totaling $440 million—"*prior to implementing service*."[106] Thus, CSX and NS claim that Amtrak must pay approximately $3 million *per mile of track* before it can run even a single passenger train the approximately 150 miles between New Orleans and Mobile. CSX's and NS's position that, as a condition of restarting the service, Amtrak first must fund infrastructure project that *might* be needed in two decades is the same position that they have taken over the past several years, which prompted Amtrak to initiate this proceeding in the first place. It cannot be that $440 million of projects are actually "necessary for Amtrak to operate additional trains by its proposed start date" in 2022.[107]

B. CSX's and NS's $440 Million in Infrastructure Demands are Unsupported.

While CSX and NS claim that the only way to address the alleged delays to their freight operations hypothesized by their flawed RTC model is for Amtrak to build them a wish list of projects costing up to $440 million, they do nothing to explain how these particular projects actually relate to the particular impacts they claim.[108] Nor do they offer any order of priority for the projects, beyond stating that 11 of the 14 projects they demand must be complete before even

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[106] CSX and NS Opening Evidence at 10-11. CSX and NS elsewhere appear to indicate that only 11 of their 14 wish list projects must be completed prior to the resumption of service (though their evidence is contradictory as to whether the "St. Elmo siding" is included in 2019 or not). CSX and NS Opening Evidence at 51. Even assuming that 11 projects completed is the more accurate representation of their position, these 11 projects still total between $292 million and $317 million. *See* CSX and NS Opening Evidence, App. A, RTC Modeling Report, App. D, Proposed Projects Descriptions and Justifications, at 59-68 (describing projects proposed for 2019 and/or 2039) *and* CSX and NS Opening Evidence, App. B, Engineering Cost Assessments Report, Ex. B-2, at 1 (detailing low and high cost estimates for each proposed project).

[107] *Application of the Nat'l Passenger R.R. Corp. Under 49 U.S.C. § 24308(e)—CSX Transportation, Inc., and Norfolk S. Ry. Co.*, No. FD 36496, slip op. at 7 (STB served Aug. 6, 2021).

[108] CSX's and NS's approach to determining what is required to accommodate the addition of Amtrak service stands in stark contrast to their approach to determining what is required on their lines to accommodate additional freight service. For example, as part of CSX's application to acquire Pan Am Railway, CSX admitted that it had performed no studies or analyses to determine whether additional track capacity or other investments were required or desirable to accommodate the operation of the NS double-stack trains on CSX's Berkshire Subdivision and Boston Subdivision. Ex. 7, CSX Resp. to Amtrak Interrog. No. 2 (June 1, 20201).

a single train can run in 2022.[109] And CSX and NS do not even consider solutions other than significant new infrastructure, such as whether more efficient use of existing infrastructure, schedule adjustments, dispatching decisions, or minor signal improvements could address any impacts from the *Gulf Coast* service. As just one example, CSX and NS claim that while "current freight-only operations can rely on dispatching maneuvers to attempt to minimize the length of time freight trains block … crossings," somehow "the addition of passenger traffic would foreclose that strategy."[110] They never explain why that is so.

CSX's and NS's refusal to even consider whether operational efficiencies might alleviate some of the impacts they forecast is surprising in light of CSX's recent representations to the Board as part of its merger application that operational efficiencies along the CSX's Berkshire Subdivision and Boston Subdivision would be more than sufficient to address any potential negative impacts for passenger rail.[111] It is unclear why some of those same claimed operational efficiencies are not possible along the Gulf Coast also.

As to the infrastructure recommendations, Amtrak's experts have determined, "the recommended infrastructure would go above and beyond CSX's current capacity needs, and the growth forecasts."[112] Nowhere in CSX's or NS's opening evidence is there cost-benefit analysis linking the projects proposed to the supposed issues to be solved. While there are scopes and estimates of certain solutions, there is no quantitative definition of the problem that each scope and estimate is intended to solve. CSX and NS repeatedly claim train delay and reduced speed

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[109] CSX and NS Opening Evidence at 51.

[110] *Id*. at 6.

[111] *Amended and Supplemented Application of CSX Corp. Transp., Inc., et al.—Control and Merger—Pan Am Sys., Inc., Pan Am Rys., Inc., Boston and Maine Corp., Maine Cent. R.R. Co., Northern R.R., Pan Am Southern LLC, Portland Terminal Co., Springfield Terminal R.R. Co., Stony Brook R.R. Co., and Vermont & Massachusetts R.R. Co.*, STB Docket No. 36472 (filed July 1, 2021).

[112] Ex. 4, Reply Verified Statement of DB Engineering & Consulting ("DB Engineering Reply Verified Statement") at 25-26.

numbers, but they do not explain how these system-wide numbers are affected by the projects they propose at various locations. Likewise, CSX and NS repeatedly claim issues due to moveable bridges, but they do not offer any quantitative articulation of how those issues tie to the solutions they have proposed. They claim operational conflicts, but not offer any quantification of how operational action could mitigate these conflicts. In sum, CSX's and NS's infrastructure demands are wholly unsupported.[113]

C. CSX's and NS's Infrastructure Demands Are Not Justified by the Supposed "Uniqueness" of the Gulf Coast Corridor.

In arguing that the Board should refuse Amtrak's request to run the *Gulf Coast* service unless Amtrak first builds hundreds of millions of dollars in infrastructure for them, CSX and NS repeatedly claim that the Gulf Coast corridor is somehow "unique" as "compared to other lines over which Amtrak operates."[114] But the characteristics that CSX and NS claim make the Gulf Coast Corridor "unique" are actually quite common in Amtrak's experience.

For example, CSX and NS claim the Gulf Coast Corridor is "unique" because it has seven movable bridges (plus six on adjoining lines).[115] However, railroads, passenger and freight co-exist with moveable bridges at numerous locations in the United States. An excellent example of this are the five moveable bridges over a 60-mile section of the Northeast Corridor between New Haven and Westerly, Connecticut. These bridges on this segment have an average daily frequency of 12 to 19 openings during peak periods. The segment carries 38 Amtrak, 24 commuter and 6 freight a day, including the Washington to Boston *Acela* service.[116]

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113 *See* Ex. 3, Crowley and Fapp Reply Verified Statement at 52.

114 CSX and NS Opening Evidence at 6.

115 *Id.*

116 Ex. 2, Blair Reply Verified Statement ¶ 44.

CSX and NS also claim the Gulf Coast Corridor is "unique" because it is "primarily single track."[117] However, more than two-thirds of the Class I railroad main lines and vast majority of Amtrak's 21,000-mile national network is single tracked. Thus, Amtrak regularly operates multi-frequency corridor services on predominantly single-track lines.[118] For example, BNSF's main line from Bakersfield to Stockton, which has much higher freight train volumes than the Gulf Coast Corridor, accommodates 14 Amtrak trains every day.[119] Moreover, while the Gulf Coast corridor is primarily single track, in fact, approximately 20 percent of the route includes passing sidings or double track,[120] which is higher than on many single-track Class I main lines over which Amtrak operates.

CSX and NS also claim the Gulf Coast Corridor is "unique" because it has "160 grade crossings."[121] However, this likewise is not "unique." For example, the Florida East Coast Railway line between Miami and West Palm Beach, which accommodates 34 daily *Brightline* passenger trains and more freight trains than operate between New Orleans and Mobile, has 183 grade crossings in less than 70 miles.[122]

CSX and NS also claim the Gulf Coast Corridor is "unique" because it has "unusually high freight demands."[123] However, the volume and complexity of freight operations between New Orleans and Mobile and in the New Orleans and Mobile terminal areas pale in comparison to the volume and complexity on many other lines and at many other terminals where Amtrak operates.

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[117] CSX and NS Opening Evidence at 6.

[118] Ex. 2, Blair Reply Verified Statement ¶ 45.

[119] *Id.*

[120] CSX and NS 2021 RTC Report at 56.

[121] CSX and NS Opening Evidence at 23.

[122] Ex. 2, Blair Reply Verified Statement ¶ 46.

[123] CSX and NS Opening Evidence at 7.

For example, Chicago, where Amtrak operates over 50 trains a day, or BNSF's Chicago-Los Angeles Transcon Line over which Amtrak's *Southwest Chief* operates, which handles approximately 100 freight trains a day.[124]

CSX and NS also claim the Gulf Coast Corridor is "unique" because it has "short or insufficient length sidings, improperly spaced to efficiently pass trains."[125] However, these sidings only became "short" because of recent changes in CSX's operating practice to dispatch freight trains on the Gulf Coast corridor that are longer than current siding lengths. Moreover, it is incorrect to claim that passenger trains and freight trains can only meet at sidings long enough to accommodate a long freight train. [126] A short passenger train can pass a freight train of any length at even the shortest siding. The inability of a train to pass a train going in the opposite direction—which occurs only when two overly long *freight* trains meet—is solely the result of CSX's current practice of operating trains that are too long to fit in many of the sidings on the line. The 124-mile segment between the double-track portions of the line in New Orleans and Mobile has nine sidings longer than 7,400 feet, six of which are longer than 8,000 feet.[127] While CSX and NS claim that three of these sidings have an effective capacity of less than 7,400 feet, presumably because they include grade crossings, all of them could be used for meets between Amtrak and freight trains.

In sum, the Gulf Coast Corridor is not "unique" or completely unlike other corridors on which Amtrak currently runs, and thus any supposedly "unique" features of the corridor do not

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[124] Ex. 2, Blair Reply Verified Statement ¶ 47.

[125] CSX and NS Opening Evidence, Ex. 2, Verified Statement of Charles H. Banks and Larry R. Guthrie at I-4.

[126] Ex. 2, Blair Reply Verified Statement ¶ 48.

[127] CSX and NS RTC Report at 56.

justify CSX's and NS's position that hundreds of millions of dollars of infrastructure must be built before Amtrak can run a single train.

IV. THE GULF COAST CORRIDOR HAS SUFFICIENT CAPACITY TO RESUME PASSENGER SERVICE WITHOUT CAUSING UNREASONABLE, IMPAIRMENT OF FREIGHT TRANSPORTATION.

Unlike CSX and NS, who are focused on their unrealistic assumptions about what might happen two decades from now, Amtrak is focused on restoring passenger service to the people of the Gulf Coast now. Accordingly, although it has no burden under the statute to prove that it can run its service without unreasonably impairing freight transportation, Amtrak nonetheless undertook a capacity analysis to ensure that there is sufficient capacity now for passenger service along the Gulf Coast corridor with only minimal impact on freight operations. This analysis is set forth in the Reply Verified Statement of DB Engineering & Consulting USA, Inc.

That capacity analysis uses an innovative "rail marketplace framework" to determine rail network capacity by looking at the existing infrastructure, evaluating the current use of that network and the ability of the network to accommodate additional trains, and then evaluating any proposed additions needed to operate additional trains. To develop proposed freight and passenger paths, the capacity study uses empirically derived modelling parameters based on actual, reported operating data and information.

DB Engineering & Consulting's Verified Statement establishes that the "Amtrak Gulf Coast service can be initiated without any immediate infrastructure improvements" because "no sections of the corridor exceed the available capacity."[128] While there are some locations along the Gulf Coast corridor where capacity would be somewhat constrained by the introduction of passenger service, the "demand on capacity does not exceed the supply and therefore does not

[128] Ex. 4, DB Engineering Reply Verified Statement at 13.

impair freight operations."[129] If needed, this constrained capacity generally can be addressed by operations or other mitigations that are orders of magnitude lower than the $440 million in new infrastructure demanded by CSX and NS.[130] Moreover, those issues need not be addressed prior to the start date of the *Gulf Coast* service but can be phased in over time. As CSX and NS previously have recognized, there is already more than $66 million in federal and state funding available for the *Gulf Coast* service. This funding potentially can be used for improvements in those areas identified by the capacity study.

Although DB Engineering and Consulting concludes that "the Amtrak Gulf Coast service could be initiated without any immediate infrastructure improvements," the Gulf Coast Working Group previously recommended the construction of a layover track at Mobile Station, which will not be possible to achieve by Amtrak's proposed start date of early 2022.[131] Because the status of the *Gulf Coast* service has been uncertain for so long, it is not surprising that the City of Mobile has not yet constructed or consented to the construction of a layover track for a service that CSX and NS continue to refuse to run. While Amtrak is continuing to pursue the construction of a layover track with the City of Mobile, in the interim, Amtrak will need a temporary layover track in the Mobile area for the start of service in 2022.[132] One potential solution is for Amtrak to restore

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[129] *Id.*

[130] *See id.* at 21-22.

[131] CSX and NS suggest that Amtrak has been inconsistent by stating "in its Application that it would fund the infrastructure projects set forth in Table 5 of the Gulf Coast Working Group's 2017 Report to Congress, *see* Application at 3 n.3, but more recently [claiming] that no infrastructure improvements are required to support passenger service other than passenger station improvements." CSX and NS Opening Evidence at 1 n.1. But Amtrak's position has always been consistent. The only infrastructure improvements that the Gulf Coast Working Group identified as being required prior to the start of service are those listed in Table 5 of the Gulf Coast Working Group's 2017 Report to Congress as the "Minimum Needed for Passenger Service"—station improvements and a layover track in Mobile. Amtrak is in the process of completing all of the station improvements.

[132] Ex. 2, Blair Reply Verified Statement ¶¶ 56, 62.

the "Amtrak Track" at CSX's Choctaw Yard that CSX tore up in 2019 while the parties were in the midst of negotiating over the restoration of service.[133]

On November 29, 2021, over CSX's objection, the Board granted Amtrak's request to survey Choctaw Yard to determine if it is a suitable site for an interim layover track. The parties are currently discussing a schedule for that survey. Amtrak also requested that CSX identify another potential site if it believes Choctaw Yard is not suitable, and CSX has suggested that Amtrak also explore an alternative site at Mobile Station.[134] CSX has miles of track available in and around Mobile. Surely, it can identify 1,000 feet for an interim layover track for Amtrak. If, however, CSX will not work with Amtrak to find a suitable location for a layover track in Mobile, Amtrak respectfully requests that as part of its order in these proceedings, the STB order that CSX make suitable facilities available to Amtrak for an interim layover track and retain jurisdiction to ensure that CSX timely complies with that order.

V. THE PORT'S EVIDENTIARY SUBMISSION SHOULD NOT BE CONSIDERED FOR PURPOSES OF DETERMINING WHETHER CSX AND NS HAVE MET THEIR BURDEN OF DEMONSTRATING AN UNREASONABLE IMPAIRMENT.

Finally, in deciding this proceeding, the Board should disregard the Port's purported "evidentiary submission." *First*, Section 24308(e) speaks only in terms of, and requires the Board to look only to, whether and to what extent the Gulf Coast service will "impair unreasonably freight transportation *of the rail carrier*, *with the rail carrier* having the burden of demonstrating that the additional trains will impair the freight transportation."[135] The statute does not contemplate that the Board account for interests of other parties that may use or cross a rail carrier's tracks. TASD

[133] *Id.* ¶¶ 57-58.

[134] *Id.* ¶ 65.

[135] 49 U.S.C. § 24308(e) (emphasis added).

is a switching and terminal carrier.[136] It does not own any rails upon which Amtrak plans to traverse, and as a result it has no role in presenting evidence in this proceeding.[137]

Second, TASD is not a party to the proceeding and is not entitled to participate as a party to the proceeding without leave of the Board. As described in Amtrak's October 20, 2021 Motion for Clarification, while TASD is designated a "party of record" on the Board's docket service list, and has filed letters of support for CSX and NS, TASD has not been granted actual "party" status to participate further, and present evidence, in the proceeding as required under the Board's regulations.[138]

Finally, and in any event, TASD's evidence does not demonstrate that the Gulf Coast service would cause any unreasonable impairment. TASD at most offers broad statements about its operations but fails to offer any detail about the specific number of trains that resumption of the *Gulf Coast* service would impact. For example, TASD failed to provide train records or dispatching sheets offering detail regarding the precise number of trains that operate over CSX's lines, the dates those trains operate, or the time those trains operate.[139] And as described in the

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[136] *See Terminal Ry. Alabama State Docks—Temporary Trackage Rights Exemption—Norfolk S. Ry. Co.*, Docket No. FD 36190 (STB served May 11, 2018).

[137] *See* 49 U.S.C. § 24308(e). For similar reasons, an individual could not submit evidence for the Board to consider regarding whether his vehicle may be held at a crossing for longer than he otherwise might due to Amtrak's *Gulf Coast* Service. The statute requires the Board to assess whether resumption of the Gulf Coast Service will impair unreasonably *freight* transportation, and freight transportation only.

[138] The Board's regulations define a "party" as a "complainant, defendant, applicant, respondent, protestant, intervener, or petitioner in any proceeding" or a person who is "permitted or directed by the Board to participate in a proceeding." 49 C.F.R. § 1101.2(d). The definition of "party" notably does "not include persons merely signing certificates of support." *Id.* The regulation further notes that "[p]ersons on the docket service list merely for the purpose of receiving copies of Board releases are not considered parties to the proceeding." *Id.* While TASD has, in a letter, asserted that its intervention as a party "is warranted," TASD has not formally moved to intervene in this proceeding. *See* 49 C.F.R. § 1113.7(a) ("Intervention will normally be granted only upon petition."). And, to the extent a statement in a letter that intervention in theory would be warranted amounts to a formal petition to intervene, TASD does not meet the applicable standards. Specifically, under 49 C.F.R. § 1113.7(a), intervention is warranted only where "the issues would not be broadened or the proceeding delayed." *Id.* Here, the issues would indeed be broadened. TASD is seeking the Board to do more than what it is statutorily mandated to do. For the same reason intervention is inappropriate under § 1113.7(a), it likewise is inappropriate under § 1112.1.

[139] Ex. 3, Crowley and Fapp Reply Verified Statement at 57.

Reply Verified Statement of Messrs. Crowley and Fapp, TASD's operations are not as complex as TASD makes them out to be. What little data TASD provides regarding its car count does not reflect only those operations touching CSX's lines.[140] That data instead include *all* railcars TASD handles. Similarly, TASD claims that it interchanges with eight railroads, appearing to indicate that it runs a highly complex operation. However, while TASD may have the capacity to handle traffic for eight railroads, it actually interchanges traffic with a limited number.[141] Indeed, TASD's arguments are inconsistent with CSX's evidence, as well as with publicly available information. For example, TASD claims CSX will be required to hold its main line clear for six hours per day to allow for Amtrak train movements. However, in its (incorrect) RTC analysis, CSX indicates it would hold the main line for Amtrak train movements for only two hours.[142] Further, TASD fails to provide any support for its proposed construction projects it claims will mitigate any adverse impact resulting from resumption of the *Gulf Coast* service.[143] Simply put, TASD is not a proper party to this proceeding and its evidence should be disregarded.

CONCLUSION

For the above stated reasons, Amtrak respectfully requests the Board order that the *Gulf Coast* service be permitted to resume on the schedule proposed by Amtrak and with the compensation as set forth within the parties' respective operating agreements within 60 days of the Board's order.

[140] *Id.* at 14-17.

[141] *Id.* at 60.

[142] *Id.* at 61.

[143] *Id.* at 58.

December 3, 2021

Respectfully submitted:

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CERTIFICATE OF SERVICE

I, Jessica Ring Amunson, certify that I have this day served copies of this document upon all parties of record in this proceeding by use of the service list, consistent with 49 C.F.R. § 1104.12.

/s/ Jessica Ring Amunson December 3, 2021
Jessica Ring Amunson

EXHIBIT 1

BEFORE THE
SURFACE TRANSPORTATION BOARD
DOCKET NO. FD 36496

APPLICATION OF THE NATIONAL RAILROAD PASSENGER CORPORATION UNDER 49 U.S.C. § 24308(e) – CSX TRANSPORTATION, INC. AND NORFOLK SOUTHERN CORPORATION

NATIONAL RAILROAD PASSENGER CORPORATION'S REPLY EVIDENCE

VERIFIED STATEMENT OF
DENNIS NEWMAN,
AMTRAK EXECUTIVE VICE PRESIDENT
PLANNING & ASSET DEVELOPMENT

1. My name is Dennis Newman. I am the Executive Vice President for Planning and Asset Development for the National Railroad Passenger Corporation ("Amtrak"). In this role, I oversee: Planning & Commercial Services; Infrastructure Access & Investment; Stations, Facilities, Properties, & Accessibility; and the Host Railroad Group. I joined Amtrak in December 2017 and served as Vice President, Schedule & Consist Planning, refining train schedules and capacity deployment to improve ridership, revenue, and the financial and operating performance of Amtrak's routes. My areas of expertise include strategic planning, network development, demand forecasting and profitability analysis.

2. Many of the departments which I oversee at Amtrak have had some role in the analysis of and/or planning for the restored Gulf Coast passenger service that is the subject of this proceeding, as well as the development of a wider strategic vision to expand intercity passenger rail throughout the United States, of which the restoration of the Gulf Coast service is a part.

3. When Amtrak was created in 1970, Congress's expectation was that it would develop new services, similar to the then recently inaugurated Metroliner service between New York City and Washington, on short distance corridors throughout the United States. By statute, Amtrak's mission is "to provide efficient and effective intercity passenger rail mobility consisting of high-quality service that is trip-time competitive with other intercity travel options …" 49 U.S.C. § 24101(b).

4. The development of corridors linking major metropolitan areas throughout the United States did not happen as envisioned, in part because Amtrak never received the public funding required to upgrade tracks, acquire new equipment, and fund the operating costs of significant service expansion.

5. As a result, the map of Amtrak's current route network appears little changed from 50 years ago, even though the U.S. population has increased by 120 million. Major cities such as Atlanta and Denver are served by a single long-distance route operating once a day; others, such as Columbus, Phoenix and Nashville, have no Amtrak service at all. Much of the Southeast and Southwest, including large, fast-growing and diverse states along the Gulf Corridor, are virtually devoid of Amtrak service.

6. In April 2021, Amtrak unveiled its vision for new and expanded intercity rail service, *Amtrak Connects US: Amtrak's Vision for Improving Transportation Across America* (Appendix A) ("*Amtrak Connects US*"). In that document, Amtrak set forth its strategy for expanding intercity passenger rail service over the next 15 years, in cooperation with the Department of Transportation, state partners, host railroads, and other stakeholders. The plan envisions new intercity passenger rail service to approximately 160 unserved or underserved communities, including the 50 largest metropolitan areas in the country. The vision includes service on 39 new routes and enhanced service on 25 existing routes, which will expand or improve passenger rail service for 20 million more riders annually, doubling the number of customers that rode Amtrak's corridor routes in 2019 (pre-pandemic).

7. The proposed expansion of Amtrak's intercity passenger rail service will have several key, quantifiable benefits. It will enhance mobility, drive economic growth, reduce highway and air traffic congestion, and meaningfully contribute to reducing greenhouse gas emissions. The economic benefits from corridor development and expanded Amtrak service are significant, potentially delivering billions of dollars in economic growth across the country. And by expanding service to regions of the country with significant diverse populations, the economic

growth driven by Amtrak expansion will benefit historically underserved communities, many of which are situated in dense travel corridors that entirely lack intercity passenger rail service.

8. The vision of developing an expanded Amtrak network has attracted enthusiastic support from states and communities, elected officials, and the Administration and Congress, who have provided the funding to start making it a reality.

9. Last month, the President signed the bipartisan Infrastructure Investment and Jobs Act ("IIJA"), that provides transformative levels of federal funding for expansion of intercity passenger rail service. The IIJA includes appropriations of $12 billion for Federal-State Partnership for Intercity Passenger Rail Service Grants that can be used for the capital costs of expanded Amtrak service, and of $250 million for Restoration and Enhancement Grants for costs of new services. It also authorizes Amtrak to spend up to $1.26 billion of its National Network Grant over the next five years for capital investments and initial operating assistance for new and additional Amtrak services. IIJA also directs FRA to develop, in consultation with Amtrak, a prioritized list of corridors that will receive investments under these programs.

10. Amtrak Connects US identifies new, twice-daily service between New Orleans, Louisiana and Mobile, Alabama as one of the keys to enhancing passenger rail service in the Southeast United States. The proposed *Gulf Coast* service is expected to increase mobility for citizens of the Gulf Coast region, not only by linking vital and growing metropolitan centers in Alabama, Louisiana, and Mississippi, but also by providing connections with Amtrak's *Sunset Limited, City of New Orleans,* and *Crescent* services.

11. The proposed *Gulf Coast* service is also expected to bring significant economic benefits and opportunities to the region, including an estimated $42 million in annual economic activity generated by the service. The Gulf Coast region is home to numerous regional, national

and global tourist destinations and events, including New Orleans' Mardi Gras, Gulf Coast beaches, and casino and gaming resorts. Major League sports teams, NCAA bowl games, cruise terminals with mass-market cruise ship departures and convention opportunities also draw visitors to communities in the region, while military bases and major defense contractor facilities bring business and military travelers.

12. Access to host railroad lines, facilities, and services for new and expanded service on reasonable terms, without lengthy delays or exorbitant and unjustified demands for capital investments, is an essential prerequisite to expanding Amtrak's network. Amtrak always favors cooperation with host railroads for its expansion plans, but existing law gives Amtrak an expeditious means of securing an order from the Board allowing expansion to proceed if necessary.

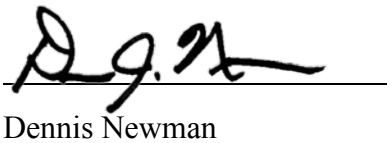
13. The proposed Gulf Coast service cannot operate without access to tracks and facilities owned by the host railroads CSX Transportation, Inc. ("CSX") and Norfolk Southern Railway Company ("NS"). CSX and NS have thus far refused to allow the reintroduction of passenger service unless Amtrak agrees to build hundreds of millions (or even billions) of dollars of improvements to their existing railroad infrastructure. The details describing Amtrak's years-long attempts to reach agreement with CSX and NS for the reintroduction of service to the Gulf Coast are set forth in the Verified Statement of Jim Blair.

14. Amtrak hopes to commence the Gulf Coast service as soon as possible in 2022, and intends to work cooperatively with local communities, funding agencies, and the host railroads to bring the benefits of passenger rail to the citizens of the region.

VERIFICATION

I, Dennis Newman, declare under penalty of perjury that the foregoing information regarding Amtrak is true and correct. Further, I certify that I am qualified and authorized to file this statement with regard to Amtrak strategies and operations.

Executed on this 2nd day of December, 2021.



Dennis Newman

APPENDIX A

AMTRAK Connects US

MORE TRAINS. MORE CITIES.
Better Service.

Amtrak's Vision for Improving Transportation Across America | May 2021

National Railroad Passenger Corporation
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AMTRAK Connects US

MORE TRAINS. MORE CITIES.

Better Service.

Amtrak's Vision for Improving Transportation Across America

01

Executive Summary

OVERVIEW

As Amtrak celebrates 50 years of service to America, we are focused on the future and are pleased to present this comprehensive plan to develop and expand our nation's transportation infrastructure, enhance mobility, drive economic growth and meaningfully contribute to reducing greenhouse gas (GHG) emissions. With our seventeen state partners we provide service to forty-six states, linking urban and rural areas from coast to coast. But there is so much more to be done, from providing transportation choices in more locations to reducing highway and air traffic congestion to addressing longstanding economic and social inequities. This report describes how.

To achieve this vision, Amtrak proposes that the federal government invest $75 billion over fifteen years to develop and expand intercity passenger rail corridors around the nation in collaboration with our existing and new state partners. Key elements of Amtrak's proposal include:

Sustained and Flexible Funding Paths

Amtrak proposes a combination of funding mechanisms, including direct federal funding to Amtrak for corridor development and operation, and discretionary grants available to states, Amtrak and others for corridor development. This vision does not propose to replace existing grant programs. Rather, it would augment them with dedicated and reliable funding from an intercity passenger rail trust fund, as proposed in our surface transportation reauthorization proposal, or other source needed to execute on a long term vision.

Federal Investment Leadership

Following the successful models used to develop the nation's Interstate Highway System and our aviation infrastructure, Amtrak proposes significant Federal financial leadership to drive the development and growth of the Amtrak system, in recognition of the interstate commerce and national benefits that derive from an expanded network. Amtrak proposes that federal funding to Amtrak could allow Amtrak to cover up to 100% of the initial capital investments for corridor growth and improvement, and early operational costs. After tapered reductions in Federal operating financial support during the first five years of service, states would then continue services under the Amtrak-state cost sharing structure developed under Section 209 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA), as Amtrak and its state partners may revise it.

Build Upon Success

This vision builds on the accomplishments of Amtrak's seventeen state partners in planning, funding, establishing, and growing state-supported corridors around the nation over the preceding decades. The proposed federal funding could be used not only to help establish new corridors, but also to improve, upgrade, and add frequencies to existing state-supported corridors to help Amtrak and states fulfill their objectives. Amtrak offers a full menu of skills and resources to realize this vision: states with the capability and desire to lead implementation can do so, while Amtrak can handle some or all aspects of implementation for states that desire it. To ensure mutual agreement on these and other topics, each project will require an agreement between Amtrak and the state in advance. This vision won't happen unilaterally, by Amtrak or any single party—it will require a team effort among Amtrak, the federal government, state and local governments, and host railroads.

This vision does not propose eliminating or restructuring any long distance or other trains, but is additive to Amtrak's pre-COVID-19 route network.

Efficient Host Railroad Access

To deploy the proposed new federal funding effectively in a timely fashion, Amtrak proposes improved enforcement of existing Federal laws regarding network expansion and dispatching preference on host railroads. While Amtrak favors reaching negotiated agreements with host railroads for expansion, the presence of significant Federal funding for needed capital improvements and an effective, fast dispute resolution mechanism at the Surface Transportation Board (STB) should help the parties reach agreements. If not, the STB can quickly determine required investments so implementation can proceed.

An Evolutionary Plan

The corridors described here by Amtrak and shown on the map in Figure 6 reflect coordination with states and their state rail plans and are an initial view of where Amtrak believes intercity passenger rail can and should do more in the coming years. However, this is not a final proposal and it does not lay out a specific order or prioritization for development, since many factors including available funding levels, post-pandemic travel demand, state interest, host railroad conditions, and equipment availability must be further and continually assessed in order to determine final implementation plans for this vision. In other words, if a corridor is not mentioned in this vision, that does not indicate that Amtrak opposes it; conversely, if a corridor is included, that does not indicate it is certain to be implemented. The corridors proposed here are intended to be additive to Amtrak's pre-COVID-19 route network.

Supporting Development of Complementary High Speed Rail

Amtrak supports the development of high-speed rail (HSR) in appropriate corridors. State- or privately-operated high-speed services have been proposed in some of the corridors identified here. These proposed services generally operate via different routes, and they may not serve intermediate markets. In such cases and given the many years HSR corridors typically require for planning, permitting and construction, Amtrak is proposing to implement conventional service in the near-term that would create or expand initial markers for intercity passenger rail service and then feed complementary HSR services once built. This approach is common around the world. Additionally, Amtrak stands ready to build partnerships to develop high-speed corridors, including increasing speeds on the corridors described here, using various network assets and its established experience operating the high-speed trains in the Northeast Corridor (NEC).

Key Benefits From Investment in Intercity Passenger Rail Expansion

Mobility Impact

Amtrak believes that the intercity passenger rail corridors described in this vision could be introduced or expanded over the next fifteen years to provide a valuable and necessary travel alternative, adding service in communities large and small to Amtrak's pre-COVID-19 route network. In particular, Amtrak sees an opportunity to grow and provide needed transportation services in regions of the country where population has grown, but Amtrak service has not.

Economic Impact

The net economic benefit of this investment from operations is expected to reach $8 billion annually by 2035, with an additional $195 billion in economic activity generated by additional capital investments during 2021-2035. Over 26,000 ongoing permanent jobs, plus 616,000 person-years of temporary employment supported by capital investments during 2021-2035, will be created or supported by this effort. If left unaddressed, the frustrating congestion drivers experience on urban interstates today, where 47% of highway miles are congested during peak periods, will become the norm between major cities as well. A reduction in traffic congestion from expanded intercity rail will lead to enhanced productivity.

Environmental Impact

There is a significant opportunity to reduce carbon emissions. **Travel on Amtrak trains outside the NEC emits up to 55% fewer GHGs than driving alone, and up to 30% fewer than flying.** These benefits would scale with corridor expansion. Amtrak trains are energy-efficient and will grow even more efficient with our latest generation of Charger locomotives being delivered now, which are 10% more fuel-efficient than our current diesels. **Across Amtrak's national system, traveling by Amtrak is 46% more energy efficient than driving, and 34% more efficient than flying.**

Diversity and Inclusion Impact

Amtrak is comprised of diverse people serving diverse people. Forty-two percent of our experienced, capable workforce are members of minority populations. Further, the envisioned expansion of Amtrak corridor service to the South and the Southwest means a significant proportion of the newly-served population will include Black, Indigenous, and people of color communities. Expansion of corridor passenger rail service will improve mobility for these underserved areas of the country.

02

Introduction

America's leaders must address an aging infrastructure and transportation network inadequate for our growing population, demonstrate leadership in sustainability, and empower an economy centered on major metropolitan areas and their surrounding regions. As we look to the future, the United States has the opportunity to make use of an unparalleled asset—our railway infrastructure, the world's largest by mileage—to support an expanded network of low-carbon, high-capacity intercity passenger rail routes that can materially enhance our economy, improve communities, and create opportunities for travelers and workers alike.

Amtrak has a vision to better serve the nation by working with states and localities to add new routes and frequencies to connect a greater number of people in more places, without resorting to costly investments in tapped-out highway and aviation systems.

Over the past five decades, Amtrak has teamed with multiple states to operate short-distance corridor services which generally connect one or more major metropolitan areas with nearby cities and towns over routes of fewer than 500 miles. As of today, we have seventeen state partners supporting such services. Amtrak proposes to accelerate the growth of this network to ripe corridors across the country through an infusion of federal funding and improvements to key statutory provisions. Amtrak has been working to identify the opportunities it believes could be realized through a partnership among Amtrak, the federal government, states, local leaders, and host railroads. We have identified city pairs within America's "megaregions"[1] that meet criteria that have in the past been indicative of potential for intercity passenger rail corridor success.

In many markets, such as the NEC and its connecting corridors, plus California, the Pacific Northwest, and the Midwest, intercity passenger rail is already an essential part of the national multimodal transportation network. Elsewhere in the U.S. however, large increases in population and travel demand, demographic shifts, congestion, and changing travel preferences mean that Amtrak's legacy route network of once-a-day services do not fully meet the changing needs of the traveling public.

1. "Megaregions are networks of metropolitan areas, connected by travel patterns, economic links, shared natural resources, and social and historical commonalities." "America 2050: An Infrastructure Vision for 21st Century America," Regional Plan Association, 2008. http://libraryarchives.metro.net/DPGTL/harvested/2008-America-2050-an-infrastructure-vision-for-21st-century-America.pdf

Amtrak's 15 Year Vision

- ✓ **Add service to 160 new communities,** large and small, while retaining the existing Amtrak network serving over 525 locations.
- ✓ **Provide intercity passenger rail service** to the 50 largest metropolitan areas (by population).
- ✓ **Serve 47 of the 48 contiguous states,** expanding corridor passenger rail service in 20 states and bringing new corridor passenger rail service to 16 states.
- ✓ **Add 39 new routes, and enhance 25 routes.**
- ✓ **Introduce new stations in over half of U.S. states.**
- ✓ **Expand or improve rail service for 20 million more riders annually**—which would double the amount that the state-supported routes carried in fiscal year (FY) 2019.*
- ✓ **Provide $800 million in total Amtrak revenue growth versus FY 2019.**

*Amtrak's fiscal year runs from September through October.

Benefits of Amtrak's Corridor Vision

- ✓ **Reductions in car accidents and the accompanying injuries and fatalities.**
- ✓ **Reduction in carbon emissions.**
- ✓ **Increased energy efficiency** of trains versus other forms of transportation.
- ✓ **A form of travel that appeals to and is being demanded by Millennials,** the largest generation in America, and also a younger cohort of travelers, Gen Z.
- ✓ **Billions of dollars in economic growth** across the country.
- ✓ **An estimated 26,000 permanent jobs and 616,000 person-years of temporary employment** from the increased economic activity that more Amtrak service creates.

Amtrak's vision also has a dedicated focus on diversity and inclusion

In addition to expanding service to regions of the country with significant diverse populations, the economic growth centered around Amtrak facilities is often located in and around underserved communities. The economic growth that Amtrak itself generates will also benefit Small Business (SB) concerns and Disadvantaged Business Enterprises (DBEs), minority and women-owned businesses, veteran and service-disabled veteran owned businesses and Labor Surplus Area firms through our Annual Supplier Diversity Goals. Amtrak Contracting Agents make it a part of their routine in the formal and informal solicitation process to provide opportunities directly to SBs and DBEs.

Amtrak trains don't just benefit riders, they benefit every American

They lift up large and small businesses in local communities, reduce the carbon footprint of travel, and provide national economic benefits. It's time to invest in America's future and demonstrate global leadership in carbon reduction with Amtrak.

A Once-in-a-Generation Opportunity

America's leaders have a generational opportunity to improve an aging infrastructure and transportation network that is clearly inadequate for our growing population, demonstrate leadership in sustainability, and empower an economy increasingly centered on major metropolitan areas and their surrounding regions. It will take a team and a nation to build this expanded Amtrak network.

REQUIREMENTS FOR IMPLEMENTATION

To achieve the goals outlined above, Amtrak will need the following:

$75 Billion Investment

We will need reliable federal funding programs that provide sustained investment levels to Amtrak, states and others to undertake the multi-year planning, development and construction efforts necessary to support this vision. The estimated cost for stations, cars, locomotives, and infrastructure to implement this vision is approximately $75 billion over fifteen years.

Preference Enforcement

Implementation of our Corridor Vision will require stronger preference enforcement under existing Federal law. The law states that Amtrak receives preference over freight transportation when operating over host railroad tracks. Amtrak lacks an effective means to ensure compliance with this law.

Host Railroad Access

Amtrak needs efficient access to host railroads for new service. Federal law needs to be clarified and updated to ensure that the access to all railroad lines granted to Amtrak by statute and so vital for Amtrak's growth and expansion is not hindered as it often is today.

> **Keeping our future on track will require a national investment— and a renewed commitment— to innovation, infrastructure, and ensuring access to dependable, modern rail.**

A TEAM EFFORT

Congress is developing vital surface transportation legislation to help plan and fund the country's transportation system. We need policy changes and investments so Amtrak can better support mobility, access, and opportunity for more people, in more places across the country.

Amtrak has national reach, currently serving 46 of the 48 contiguous United States. With adequate funding, Amtrak could cost-effectively expand our network by leveraging our existing facilities and back-office functions. This would help more Americans to enjoy an expanding nationwide set of intercity passenger rail corridors providing better and more frequent regional travel options, combined with access to other regions through connection to Amtrak's Long Distance train network.

Across our network and particularly in travel markets of 500 or fewer miles where Amtrak and its state and Federal partners have chosen to invest in reliable, frequent, and competitive rail service, **the public has responded, embracing the opportunity to use intercity passenger trains when they're available.** This comes as no surprise, as Americans everywhere report support for passenger train service in their communities.

Throughout 2019 and 2020, **Amtrak conducted outreach and site visits with numerous stakeholders representing more than 25 states** to discuss Amtrak's vision for corridor development. Amtrak officials met with state departments of transportation (DOTs), Governors' offices, Joint Powers Authorities, and state legislators, as well as with mayors, city council members, chambers of commerce, and the general public. Amtrak shared our vision in route maps and illustrative schedules, discussed possible station locations, and explained how proposed federal programs could assist in getting these new corridors up and running. In 2021, Amtrak worked with states to coordinate this vision with existing state rail plans and identified potential corridors to its host railroad partners. Many of the state and local officials provided vital feedback, and Amtrak plans to continue to work closely with these stakeholders, including host railroads whose tracks Amtrak uses, to understand how Amtrak can best connect underserved communities to the nation's transportation network.

This vision foresees improving, expanding, and initiating **approximately sixty intercity passenger rail corridors across the continental U.S.** We envision a horizon of fifteen years for this development, as it is clear that so many corridors cannot all be funded and implemented simultaneously. This vision does not identify which go first: that will be determined by the interest and engagement of our partners in different regions of the country. **Implementing corridors will require a team effort among Amtrak, the federal government, state and local governments, and host railroads.** Subject to Congress putting the necessary funding and policy elements in place, Amtrak stands ready to engage with state partners who wish to begin to implement this vision.

03

The Challenges Expansion Will Address

Although growth in intercity travel demand in America temporarily subsided due to COVID-19, the underlying forces that have driven that growth over the past decades remain unchanged, and the capacity of the nation's transportation system to support that growth continues to fall behind. Before the pandemic, the nation's congested highways and overtaxed air travel network were struggling to meet the transportation requirements of a modern economy. Land use limitations and community opposition effectively prevent the development of bigger airports and wider highways, as concerns about noise, neighborhood displacement, and other environmental impacts—plus funding challenges—curtail the continuation of decades of expansion in these travel modes.

While the pandemic persists, these issues are somewhat, but not entirely, mitigated by reduction in demand. When the pandemic ends, demand is generally expected to return, driven by a resumption of economic growth plus a population increase of roughly 1.5 million inhabitants each year, and we will confront the same basic impediments that will limit our ability to expand airport and highway capacity. Unconstrained growth in these modes has reached its end—so to restore and sustain economic growth, the U.S. must pursue different solutions to provide expanded intercity transportation capacity.

STRENGTHENING THE ECONOMY

America faces great challenges in this new period of renewal. As a nation we must ensure economic prosperity in a responsible manner that does not come at the expense of the environment. We need to bring people together as families, communities, and as entire regions to make better, more meaningful and lasting connections. Amtrak, America's passenger railroad, stands ready to address these challenges in the near-term aftermath of COVID-19, and for decades to come. Amtrak is ready to power America forward towards a brighter horizon with our vision to improve transportation across the nation.

Cities and towns with access to intercity passenger rail corridors on Amtrak's national network can leverage this access to attract new generations of Americans, who tend to travel more frequently and gravitate towards trains and transit options. Similarly, these corridors can also benefit older generations who are less comfortable driving than they once were. The pattern of significant growth on Amtrak-served corridors over the last two decades points the way toward a future where targeted federal investments in Amtrak and our state and local partners will provide new and better travel options and promote economic growth in America. As the pandemic recedes, people will return to work and travel in new ways—and when they do, it will be important to plan for a future where we can leverage intercity passenger rail's advantages to improve our transportation system and build a stronger and more resilient economy.

Over the past several decades, other advanced economies have opted for a different mix of transportation investments when confronted by similar capacity constraints, embracing more environmentally friendly and accessible mobility alternatives including modern, comprehensive passenger rail networks. By contrast, America's passenger rail network has received relatively modest investments, sufficient only to begin to address a decades-long backlog of recapitalization needs and supporting only incremental improvements. As a result, many dense travel corridors and even several major cities and regions entirely lack intercity passenger rail service. Today's Amtrak network consists of state-supported rail corridor services augmenting the legacy framework of interregional long-distance trains that Amtrak has operated since its founding. Amtrak long-distance trains continue to provide daily (in some cases, three times a week) service to most of Amtrak's national network of more than 525 stations.

To assess the scale of employment and economic impacts, Amtrak has commissioned a preliminary study of the economic impacts of our corridor development vision. In Table 1, the benefits and impacts to the larger economy of Amtrak's vision are compared to continued operation of the existing Amtrak system. All dollars are in 2020 levels. The economic benefits of service expansion are clear.

Table 1. Benefits from Corridor Development

	Annual User and External Benefits (2035)	Annual Economic Activity Generated by Operations (2035)	Annual Service Driven Employment (2035)	Economic Activity Generated by Additional Capital Investments (2021-2035)	Jobs Supported by Additional Capital Investments (Person-years) (2021-2035)
Existing Network	$2.4 billion	$9.3 billion	36,000	N/A	N/A
Network Vision	$3.5 billion	$16.2 billion	62,000	$195 billion	616,000
Net Benefit of Network Vision	$1.1 billion annually	$6.9 billion annually	26,000 annually	$195 billion	616,000 through 2035

Note: All monetary values in 2020 dollars. Source: Steer, Amtrak National Network Plan - Economic Impact Analysis, May 2021

Economic Impacts

The categories of economic impacts that were assessed are comprehensive and include the following:

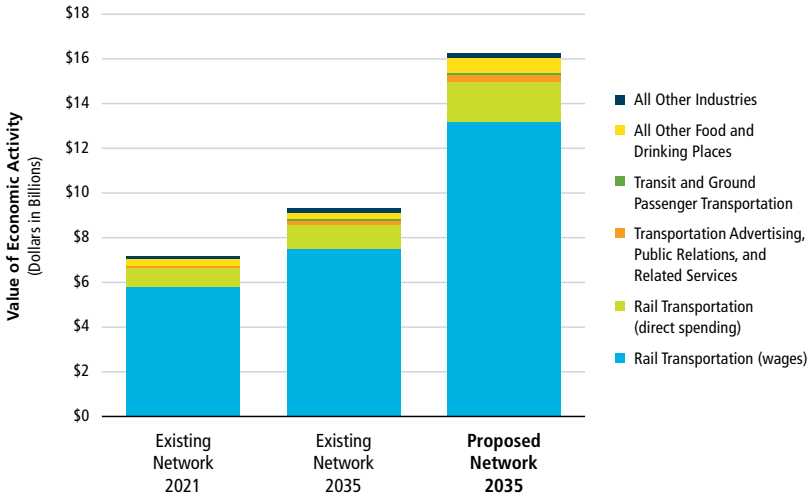
- **Expenditure impacts** attributable to the construction and operation of the various services. These are impacts measured in terms of employment, wages and output generated throughout the economy from the spending associated with building and operating the services contained in the envisioned network.
- **User benefits** associated with the services themselves. These include primarily the benefits to passengers who use or will use Amtrak in terms of travel time, reliability, comfort and convenience.
- **External benefits** that flow from the use of the services, including increased safety for passengers opting for rail over auto travel as well as the lessened auto emissions and their associated public health costs.

An important benefit of any transportation investment, whether construction or operation, is the economic impact attributable to the expenditures. This spending generates measurable direct, indirect and induced impacts in terms of output, income and employment on a region's economy. These results across the U.S. economy for this corridor vision are illustrated in Figures 1 and 2.

Employment impacts refer to the associated effect of the expenditures across all industries. Employment impacts occur when these expenditures (either in the form of direct spending to buy goods and services, or through wages being spent) create additional demand within the industry causing firms and companies to hire more labor to produce and eventually meet the additional demand.

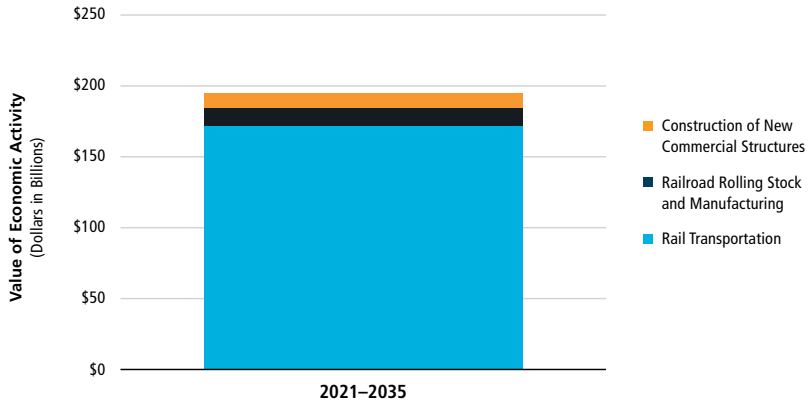
The value of economic activity in other sectors generated by the operation of the corridor vision is substantial, assuming a ramp-up over fifteen years.

Figure 1. Value of Economic Activity Generated by Operating Cost Expenditures



The impacts from capital investments to construct improvements and equip the new network are even more substantial during an assumed build-out phase.

Figure 2. Value of Economic Activity Generated by Capital Cost Expenditures



Source: Steer, Amtrak National Network Plan - Economic Impact Analysis, May 2021

CONNECTING COMMUNITIES

Differing population growth in different regions, shifting travel preferences, congestion on other modes, and concern over impacts of climate change all combine to underscore the importance of a new vision for how intercity rail can serve the nation's transportation needs. Amtrak sees an opportunity to link population centers separated by fewer than 500 miles with intercity passenger rail service to deliver unique benefits, not just to the inhabitants of the population centers, but to the people who inhabit the cities, towns, and communities between or near them.

Amtrak's solution is designed specifically to provide more Americans with a wider range of travel options so that they can affordably expand their personal mobility. Over the fifteen-year period foreseen to implement this vision, Amtrak would add trains in more markets to serve a growing and changing population with fast, modern, efficient, and enjoyable rail transportation with a smaller environmental footprint. Where Amtrak service has been a reasonably available and competitive option, Americans have embraced intercity passenger rail as a greener, faster, and safer intercity travel alternative to congested highways and confining airplanes—not just on the NEC, but in corridors in nearly every region of the country. Amtrak's vision for strategic, high-value investments in partnership with state, federal, and local governments will increase and improve the train service available in the nation's fastest-growing regions—many of which are not served adequately or at all by Amtrak's current legacy national network.

Amtrak, which began operations in 1971, is the United States' intercity passenger rail operator. With safety as the highest priority, Amtrak's goal is to provide efficient and effective intercity passenger rail mobility with modern trains that offer friendly, high-quality service that is trip-time competitive with other intercity travel options.

In the meantime, the congestion and delays experienced by automobile and air travelers today will only get worse. Amtrak trains do not just benefit train riders; they can help relieve congestion for all travelers. To many Americans, highway congestion is the most noticeable of all transportation problems because most of us experience it daily. This problem is exacerbated by the failure to build out capacity in the urban areas where demand is highest. As of 2015, more than 13% of highway bridges were classified as 'functionally obsolete' (meaning that they lack adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand); almost half of those bridges were in urban areas.[2] Conversely, building more roads can induce more people to drive, and can make congestion worse.[3]

2. Bureau of Transportation Statistics, National Transportation Statistics 2018, Table 1-28, page 57.

3. "Expanding highways and building more roads actually makes traffic worse," Curbed.com, https://archive.curbed.com/2020/3/6/21166655/highway-traffic-congestion-induced-demand.

Figure 3. Projected highway congestion at peak periods, 2045

While our infrastructure may be standing still, traffic has continued to grow. Travel on the nation's Interstate highways is increasing at a rate nearly triple the rate that new lane capacity is being added. Between the turn of the century and 2016, total highway vehicle-miles traveled (VMT) have increased more than 15%.[4] That means the frustrating congestion drivers experience on urban interstates today, where 47% of highway miles are congested during peak periods, will become the norm between major cities as well.[5] The increases are heavily concentrated in urban areas, where VMTs grew more than 33% between 2000 and 2016, further straining the transportation infrastructure at the point where capacity increases were most limited.[6] The Federal Highway Administration projects that vehicle miles traveled on U.S. highways will increase 22% above 2019 levels by 2037[7], an increase that will translate into greater emissions and higher costs to consumers—who will derive no corresponding benefit from sitting in traffic. While autonomous vehicles are on the horizon, they're unlikely to have a material impact on highway congestion in a world where travel demand continues to grow and additional road capacity is limited. Amtrak will continue to study and review this topic.

In the aviation sector, the picture of projected growth combined with static or falling capacity is very similar. The Federal Aviation Administration projects that the number of domestic airline passengers will grow 56% above 2019 levels by 2040[8]. However, although domestic air travel has been growing overall, the number of short-distance flights has fallen. There are fewer passengers and fewer flights in most short distance city pairs due to the unfavorable economics of short distance flights and the disproportionate impact of enhanced security screening and other delays on shorter trips.

A study by aircraft manufacturer Bombardier found that air passenger trips in city pairs separated by fewer than 500 miles fell 30% from 2000 to 2016. By contrast, when offered frequent, efficient rail service, travelers have shown they prefer it. During the 2000-2015 period, ridership on Amtrak's state-supported short distance trains increased 70%. During 2019, Amtrak carried more than three times as many riders between Washington, DC, and New York City than all of the airlines combined, and Amtrak carried more riders between New York City and Boston than all of the airlines combined. Continued capacity constraints and delays are likely to accelerate this trend, resulting in less air service and higher airfares in short-distance markets.

4. https://tripnet.org/wp-content/uploads/2020/07/TRIP_Interstate_Report_2020.pdf

5. Bureau of Transportation Statistics, National Transportation Statistics 2018, Table 1-35, page 65.

6. Ibid Table 1-36, page 67.

7. https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.cfm

8. https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/FY2020-40_FAA_Aerospace_Forecast.pdf

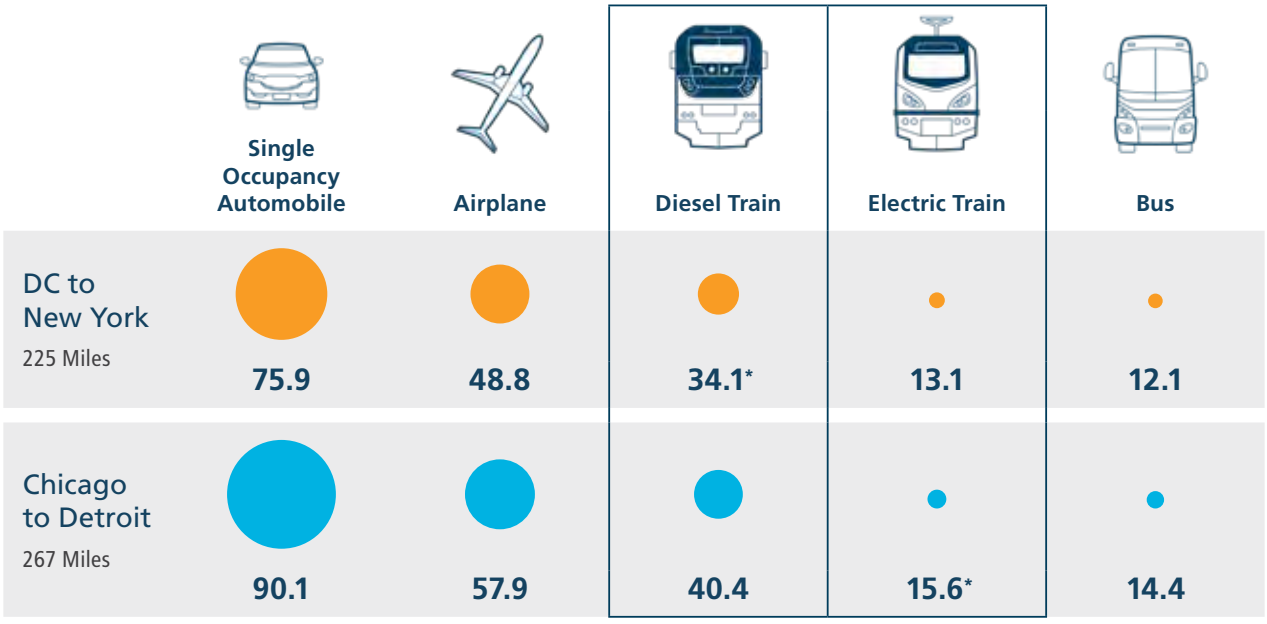
ADVANCING SUSTAINABILITY

Intercity passenger rail service travel offers benefits like speed, comfort and convenience that rival or exceed competing modes like the automobile and commercial air service but with smaller environmental and community impacts. Most passenger rail lines run to the centers of cities, where existing stations allow downtown access and (in many cases) convenient connectivity to buses, subways, and/or commuter trains. More so than other modes of travel, trains are an efficient, safe, and low-emission solution. Wi-Fi and other amenities allow travelers to work onboard or relax in comfort during their journey.

The environmental benefits of intercity passenger rail are clear, and are demonstrated by Amtrak's accomplishments documented in our FY 2019 Sustainability Report, including:

- **Travel on Amtrak electrified train operations on the NEC emits 83% fewer GHGs than driving alone, and up to 73% fewer than flying.**
- **Across Amtrak's national system, traveling by Amtrak is 46% more energy efficient than driving, and 34% more efficient than flying.**
- **Amtrak has reduced its GHG emissions by 20% since 2010 and lowered its emission by 4% in FY 2019 alone.** Amtrak is now targeting a 40% emissions reduction by 2030.
- The new *Acela* trainsets used in Amtrak's NEC service now under construction will be **40% more energy-efficient than the current Acelas.**

Figure 4. Greenhouse Gas Emissions from Passenger Transport (Total kg CO_2e per Passenger by Mode)



Calculations use EPA's Emission Factors for Greenhouse Gas Inventories [March 2020] and the IPCC Fifth Assessment Report's global warming potential values for CO_2, CH_4, and N_2O. These figures are based on Amtrak's FY19 national network operations and are not route specific. By 2026, Amtrak will be operating Charger locomotives that are 10% more fuel efficient— further reducing Amtrak's GHG emissions. *Not an option for this route; data only for comparison.

FY19 Sustainability Progress

Decreased electricity use by 4.4% at our 40 largest facilities (better than our goal of a 1% reduction); electricity use has decreased 14.5% since 2010.

Decreased diesel fuel consumption by 2.8% (better than our goal of a 1% reduction); diesel fuel use has decreased 11.3% since 2010.

Reduced GHG emissions by nearly 4% (better than our goal of a 1% reduction); GHG emissions have decreased 20.3% since 2010.

Met our FY2019 goal of diverting 15% of our trash away from landfills.

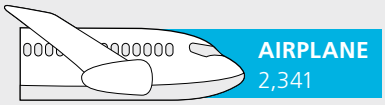
The individual automobile is, on a per-passenger mile basis, one of the least efficient types of transportation. Amtrak, by contrast, uses just 54% of the energy a car requires to move one passenger one mile.[9] To get a sense of what this means for the national environmental picture, it is important to remember that highway transportation comprised more than 82% of total energy use for the transportation sector in 2017.[10] Electric vehicles are available, but the adoption rate is slow, particularly for intercity travel where availability of charging stations remains uncertain. Even if those issues were resolved, highway capacity remains a limiting factor when combined with economic and population growth. The rail alternative is still required.

Traveling with Amtrak generates a smaller carbon footprint relative to other modes of transportation which is evident in the EPA's emission factor comparison of emissions per passenger mile per modal type. By taking Amtrak instead of flying, our Washington, DC to New York City riders avoided emitting over 250 million pounds of GHGs.[11] Also in FY 2019, by taking Amtrak instead of driving alone between Los Angeles and San Diego, our riders avoided emitting 64 million pounds of GHGs. Similarly, by taking Amtrak instead of driving alone in FY 2019, our riders avoided emitting 35 million pounds of GHGs between Chicago and St. Louis and another 35 million pounds between Seattle and Portland. The list goes on and on. Continuing a modal shift to rail will only increase emissions savings.

Intercity passenger rail represents an energy efficient and low-emission travel alternative.

Figure 5. Energy Use by Mode, Measured in British Thermal Units Per Passenger Mile (BTU/PM)

Amtrak is 34% more energy efficient than traveling by airplane...



... 46% more efficient than traveling by car...

... and 53% more efficient than traveling by truck.

Nationwide, Amtrak trains consume less energy on a per passenger mile basis than other modes.

Source: Transportation Energy Data Book, Edition 39, 2021

9. Oak Ridge National Laboratory, *Transportation Energy Data Book*, 39th Edition, Table 2.13, page 2-18.

10. Ibid, Table 2.8, page 2-13.

11. Using EPA emission factors for Amtrak and Short Haul Air Travel. Emissions in this paragraph are calculated using the EPA emissions factors available at: https://www.epa.gov/sites/production/files/2020-04/documents/ghg-emission-factors-hub.pdf

04

The Solution is Passenger Rail

A FIFTEEN YEAR VISION

If fully built out within fifteen years, Amtrak's vision would increase Amtrak state-supported corridor ridership nationwide by 120%. Forty-eight of the top fifty U.S. metropolitan areas by population would have corridor intercity passenger rail service (the other two have long distance service), compared to only twenty-seven today.

- **39 new routes,** and **enhancements to 25 routes**, bringing service to **160 new stations.**
- **Provide intercity passenger rail service to the top 50 population metropolitan areas.**
- **Expand corridor passenger rail service in 20 states and bring new corridor passenger rail service to 16 states.**
- **New stations in over half of U.S. states.**
- **Expand or improve rail service for 20 million more riders annually—** which would double the amount that the state-supported routes carried in FY19.
- **$800 million** in total Amtrak revenue growth versus FY19.
- **Add an estimated 26,000 permanent jobs and 616,000 person-years of temporary employment** from the increased economic activity that more Amtrak service creates.

To accomplish this, Amtrak plans to leverage its unique nationwide portfolio of major fixed assets including stations, fleet, car and locomotive maintenance facilities, crew and supply bases, along with its technology and skilled workforce, to support expanded services in major markets. We will make this effort in partnership with states and localities around the nation, and, in places where our presence and footprint provide a solid starting point, we can help partners avoid the cost and delay of developing these support networks from scratch. Service can be expanded on existing routes, and new routes could be developed on rail lines from existing hubs to expand Amtrak's service footprint quickly and cost-effectively.

Figure 6. Amtrak's Corridor Vision

This map reflects coordination with state rail plans but is not a final proposal.

Florida, for example, currently hosts major Amtrak assets—car and locomotive maintenance facilities, crew bases, and more—to support existing long-distance services which are also available as bases for new intra-state corridors. Amtrak's presence is much smaller today in major urban areas such as Atlanta, Denver and the Dallas-Houston-San Antonio "Texas Triangle". New bases of operations will provide a platform for new corridors serving portions of these markets and for future rounds of expansion intended to develop a comprehensive set of regional corridors providing fast, convenient and environmentally-sustainable mobility.

Amtrak also envisions collaborating with privately and publicly funded and operated high-speed and conventional passenger rail projects under development around the country. These would generally operate via different routes and/or not serve intermediate markets accessed by the corridors Amtrak envisions in this document. Amtrak sees these projects as complementary opportunities to enhance mobility and to exchange passengers; Amtrak already has a joint-ticketing agreement in place with one high-speed rail project. Services described in this vision will be reevaluated in this light if and when other services are initiated. Amtrak would plan to increase speeds on the corridors described here as demand and funding warrant.

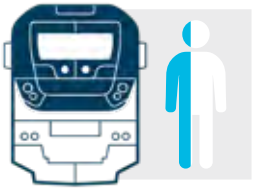
ADDITIONAL BENEFITS

The benefits to individual travelers are a significant and important portion of the appeal of intercity passenger rail. Rail continues to deliver transportation with comfort and convenience, offering easy boarding in often centrally-located facilities, and travel in a safe, spacious, and relaxing environment, with amenities such as food and beverage service and ample legroom. The ability to work onboard, with electric power and wi-fi, is increasingly important to travelers, who can make productive use of transit time that is otherwise lost during air or auto travel. Investment in rail is an investment in services that enjoy broad popular support, and will be utilized if modern, frequent and reliable service is made available.

Importantly, this vision also helps reduce both racial and economic inequities. Many locations within the United States that have significant minority populations, particularly in the South, are underserved by Amtrak's current intercity passenger rail network. This vision's focus on adding service to these communities and regions will help address that inequality with service and economic opportunity. Adding more Amtrak service will help ensure that more taxpayers have access to the quality intercity passenger rail service that they help fund. In addition to the geographic expansion to areas with large Black, Indigenous, and People of Color (BIPOC) communities, Amtrak's commitment to small business, particularly minority owned enterprises, will be a significant factor in diversity and inclusion as well.

These investments will also further public policy objectives that enjoy general public support, such as reductions in car accidents and the accompanying injuries and fatalities, and reductions in air pollution/GHG emissions as travelers shift from auto to rail. Intercity passenger rail is also a safe mode of transportation, with a passenger death rate per billion passenger miles less than 6% that of the automobile.

Figure 7. Fatality Rates per Billion Passenger Miles, By Mode (2000–2009)



Train

0.43

Automobile

7.30

Source: Steer, Amtrak Net 2.0 Economic Impact Analysis, November 2019.

05

The Right Conditions for Expansion

TODAY'S AMTRAK SYSTEM

Amtrak was created by Congress in 1970 to take over intercity passenger rail services previously operated by private railroad companies in the United States. Following decades of public investment in highways and air transportation modes, the private rail carriers had been operating their passenger services at an increasing financial loss. Amtrak's operations began fifty years ago, on May 1, 1971, and today Amtrak serves 46 states, the District of Columbia, and three Canadian provinces via more than 21,400 route miles. Reflective of the national railroad passenger network at its inception, Amtrak's route structure and service frequencies remain focused on the northeast states, a Chicago hub, and operations in California and the Pacific Northwest. With the exception of significant state-sponsored service expansion in certain states, the national route system has remained essentially unchanged despite five decades of population growth and shifts in travel demand in other areas of the country.

Figure 8. Amtrak's National Network in 2021

Amtrak's most successful routes offer multiple daily trains through fast growing megaregions with trip times that are competitive with driving and flying.

Investment in infrastructure, stations and fleet serving the NEC has enabled Amtrak to offer an extensive schedule of high-speed Acela and Northeast Regional services which have captured a significant volume of the commercial intercity travel market along this route. The only Amtrak service that consistently provides a net operating surplus, NEC revenues have been vital to Amtrak's corporate finances which, pre-pandemic, were approaching a positive operating surplus for the first time in the company's history. The NEC provides an example of the demand that exists for high quality, frequent intercity passenger rail service, and demonstrates that investment in intercity passenger rail is a proven method to provide mobility and boost local economies.

Similar opportunities exist in other corridors across the country. In addition to the NEC, Amtrak operates more than 220 state-supported trains each weekday on 28 short-distance corridors in cooperation with seventeen states. In addition, Amtrak continues to provide service along fifteen legacy long-distance routes, which (until the pandemic) accounted for 14% of total Amtrak ridership. Amtrak's network of state-supported, long-distance, and NEC services is depicted on page 24.

STATE PARTNERSHIPS

Amtrak works with seventeen state partners to develop successful short-distance corridors that have attracted significant ridership. As a result, state-supported ridership increased 70% between 2000 and 2015. By 2019, five corridors were each serving more than one million riders annually, and another five were each serving more than half a million travelers annually.

In FY 2019, state-supported corridors carried 15.4 million riders, 47% of Amtrak's total ridership. They generated $572.2 million in passenger revenues, and states provided $234.2 million in operating support. With $864.3 million of fully allocated operating expenses, this resulted in a cost recovery, including state operating payments, of 93%.

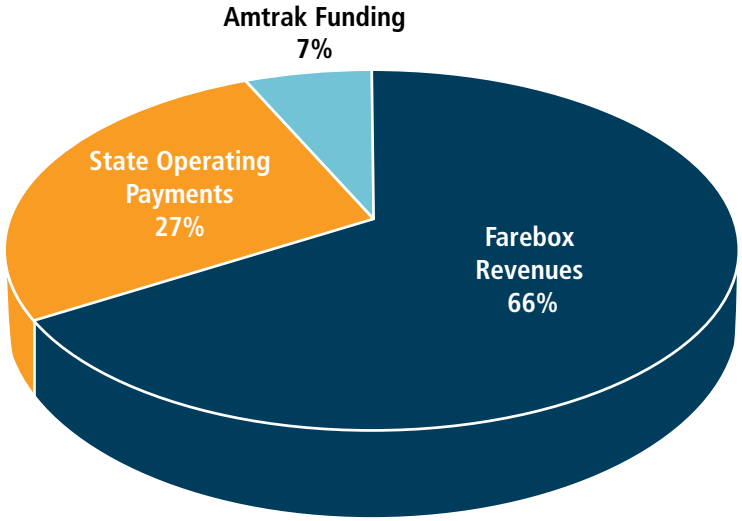
Thus, Amtrak's state-supported services require relatively low public funding for the benefits they produce because they cover most of their operating costs from farebox revenues. State Supported routes' farebox recovery of 66% is double the 33% average for transit services.

The value of these services to both our partner states and the nation is clear: In addition to providing mobility, they boost the overall economy through the share of Amtrak's capital expenditures that benefit state-supported services, which amounted to $237 million in FY 2019. Amtrak's federally-funded investments have leveraged additional state capital expenditures for state-owned equipment, in stations, and on state-supported corridors' infrastructure. Additionally, Amtrak and its state partners are collaborating on a review and revision of Passenger Rail Investment and Improvement Act (PRIIA) Section 209 state-supported corridor funding formulas.

Virginia and North Carolina are examples of states helping lead the way in partnering with Amtrak to develop successful intercity passenger rail service. Thanks to extensive programs of investment, ridership over the last decade (pre-pandemic) more than doubled on state-supported corridors in Virginia and more than tripled on the state-supported Piedmont corridor in North Carolina.

State Supported services provide cost-effective solutions for regional mobility.

Figure 9. State Supported Services - FY 2019 Operating Revenue Sources



Source: Amtrak

Building partnerships like these to grow and expand state corridors is the cornerstone of Amtrak's vision to improve mobility nationwide.

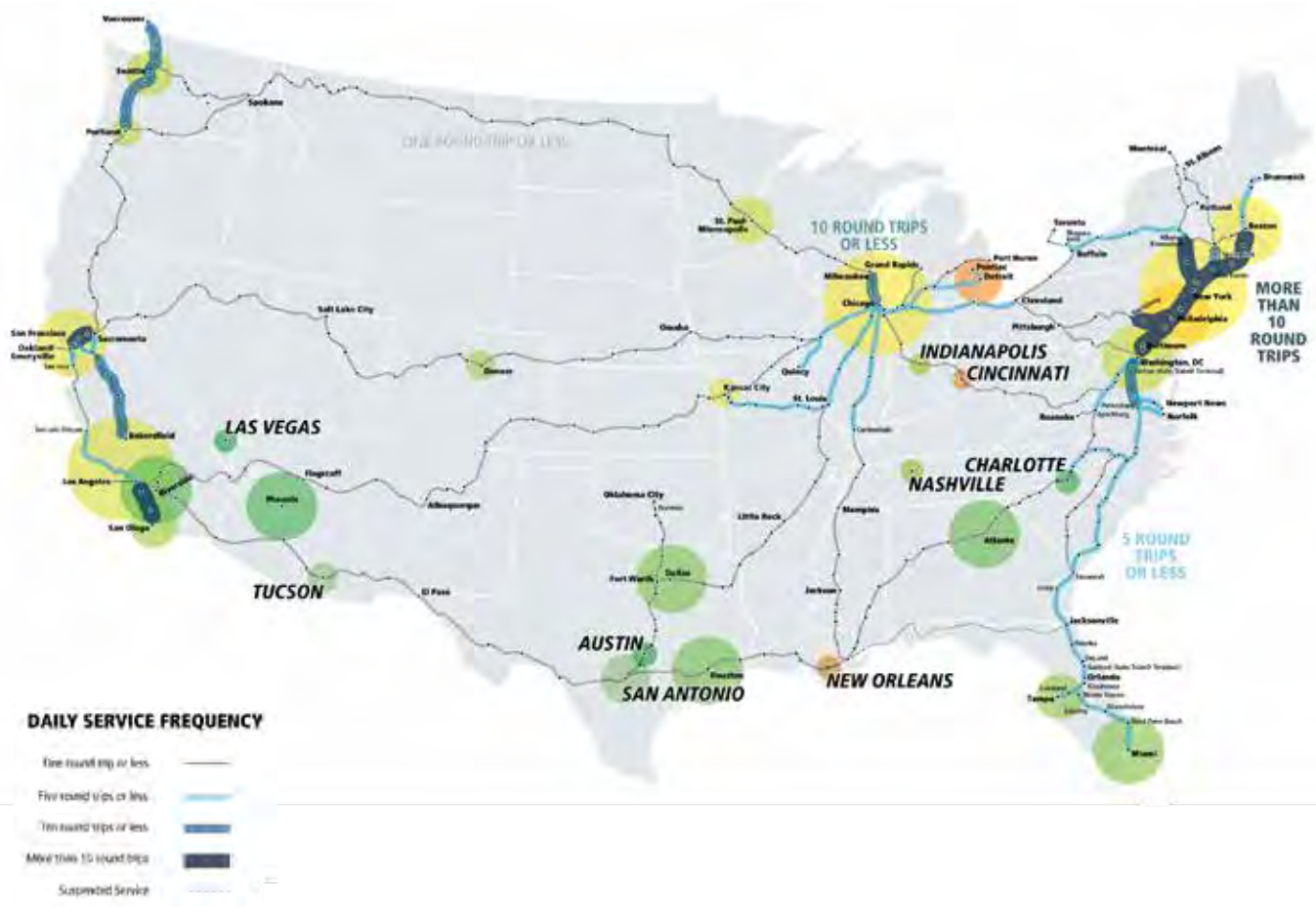
OPPORTUNITIES TO TRANSPORT THE NATION

The U.S. has grown by nearly 130 million people in the half century since Amtrak began operations, but much of that population growth has been concentrated in cities and megaregions in the Sunbelt and West, where Amtrak currently offers limited service.

Texas and Florida, the nation's second and third most populous states, have a combined population of just over 50 million, but each is served by just six Amtrak trains, some of which do not even operate every day. In contrast, on the NEC Amtrak offers more than 100 weekday trains. Houston, TX, the fifth largest metropolitan area in the nation, and Phoenix, Arizona, the 11th largest, have Amtrak service just three days per week, and the nearest station to Phoenix is actually in Maricopa, 36 miles from downtown. Atlanta, Georgia, the tenth-largest metropolitan area in the nation, is served by just a single daily long-distance train in each direction. Similarly, Denver, Colorado, the 19th most populous metropolitan area, and the center of the growing Front Range region, is served by a single daily train traveling east and west, with no service north and south along the rapidly growing axis of the Front Range. Major cities such as Cleveland and Cincinnati, Ohio, are served exclusively during the middle of the night. With the proper levels of investment, these are examples of the opportunities for Amtrak to improve regional mobility around the nation.

Phoenix, Arizona

Figure 10. Daily Train Service v. Population Growth



POPULATION FAST FACTS

207 million in 1970 → 333 million today → 389 million by 2050[12]

11 megaregions are home to 70% of Americans*

- Arizona Sun Corridor
- Cascadia
- Florida
- Front Range
- Great Lakes
- Gulf Coast
- Northeast
- Northern California
- Piedmont Atlantic
- Southern California
- Texas Triangle

*Source: America 2050

12. "A Changing Nation: Population Projections Under Alternative Immigration Scenarios," ww.census.gov, https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1146.pdf

CHANGING TRAVEL PREFERENCES FAVOR RAIL

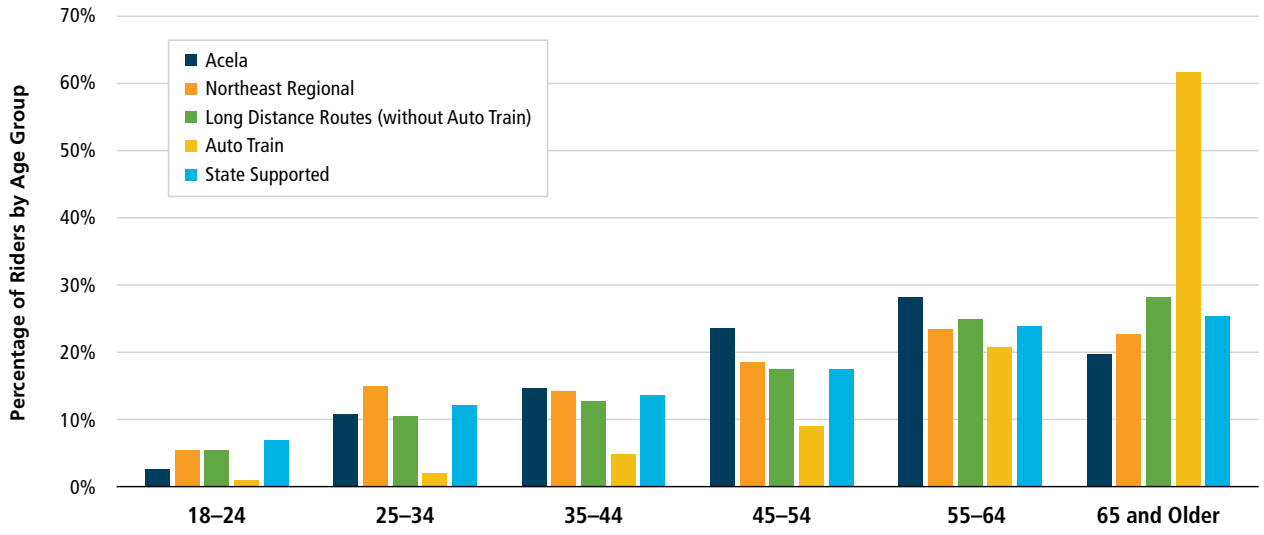
Fueling population growth is the millennial generation—those born between 1981 and 1996, who make up the nation's largest age cohort. Members of this group travel more frequently and spend more on travel than any other age group.[13] They also drive less frequently than do preceding generations. Despite this, millennials are significantly underrepresented among Amtrak travelers, as indicated in the box below, because Amtrak service is negligible in most of the cities and regions where the millennial population is growing the fastest.

- **Almost 90% of millennials live in urban areas according to the Pew Research Center.[14]**
- **Millennials prefer to arrange travel with a smartphone app:** 55% of urban 18 to 29-year-olds have used an app-based ridesharing service, according to the Pew Research Center.
- **They expect good Wi-Fi:** in a Forbes survey, 97% of millennials said they had used social media while traveling.[15]
- **In a OnePoll survey, 77% of 18- to 29-year-olds said sustainability influences their travel decisions.[16]**

Aging populations would also benefit from the availability of rail options as driving becomes more difficult for them. The number of Americans aged 65 and older is projected to nearly double from 53 million in 2018 to 95 million by 2060.[17] Passengers over 65 make up 24% of all Amtrak riders.

Intercity passenger rail is an important mobility choice for an aging population.

Figure 11. Amtrak Ridership Demographics by Age Group, 2019



Source: Amtrak

13. https://www.bhtp.com/blog/millennial-travel#:~:text=Millennials%20are%20spending%20and%20traveling,to%20%243%2C300%20for%20Baby%20Boomers.
14. https://www.pewsocialtrends.org/2018/05/22/demographic-and-economic-trends-in-urban-suburban-and-rural-communities/
15. https://www.forbes.com/sites/jefffromm/2018/07/31/how-are-millennials-using-travel-technology/?sh=703abee7132d
16. https://www.travelagentcentral.com/running-your-business/stats-90-millennials-consider-company-ethics-when-booking-travel
17. Population Reference Bureau

INTERCITY PASSENGER RAIL IS A PROVEN SOLUTION

While demographics are a vital component of demand for intercity passenger rail options, the nation's pattern of urbanization and the congestion in competing modes has increased the relevance of rail as a travel option. Megaregions are generally arrayed along linear corridors or radiate out like spokes from a major urban hub. They are often along rail lines that provided the original trace for regional settlement a century or more ago with little space available to build or expand highway or air facilities. Rail stations tend to be located in city centers with connectivity to local transit, which multiplies the convenience and the perceived value of the rail option. And unlike aircraft, a single train can directly serve multiple city pairs, as well as suburban and airport stops.

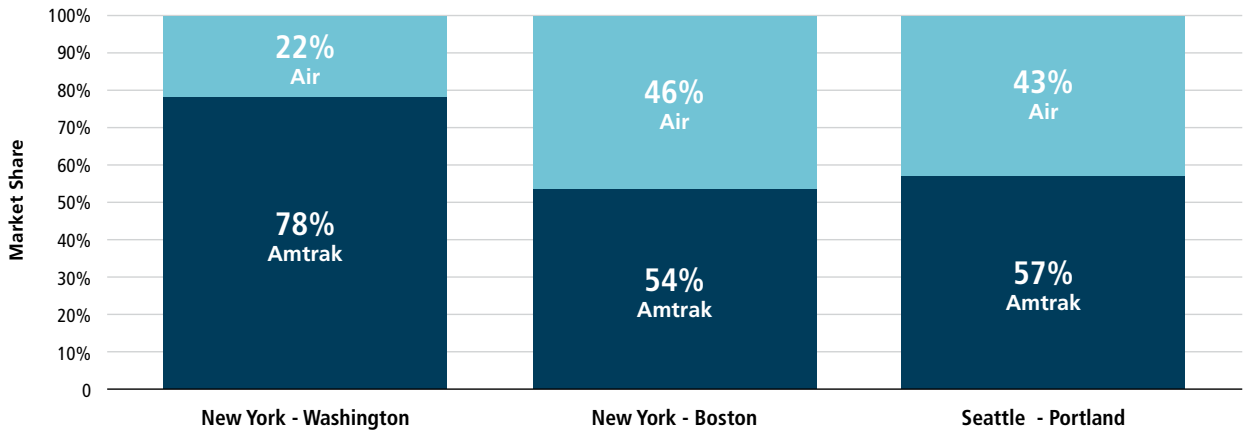
Moreover, travel trends highlight an increasing need for a rail travel option in short distance corridors. As previously observed, even before the pandemic, airlines were reducing service in short distance city pair markets—a trend that is projected to continue or accelerate—and provides an opportunity for rail to provide an efficient alternative for travelers. The success rail has demonstrated in seizing a majority of the endpoint-to-endpoint travel share from airlines in corridors as different as the New York-Washington-Boston NEC and the Seattle to Portland Amtrak Cascades Corridor illustrates the serious demand that exists for a new and better travel choice.

The message is clear: There is demand and a strong perceived value among the traveling public for rail service in short distance corridors throughout the U.S.

Amtrak aims to satisfy the demand for rail service in short distance corridors, both by providing additional frequencies along portions of existing routes and by establishing new routes between city pairs.

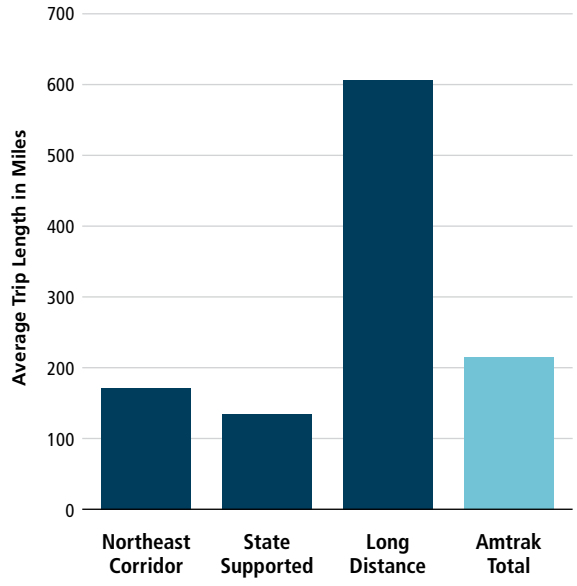
In some key travel markets, rail now carries a significantly larger share than competing air services.

Figure 12. FY 2019 Air-Rail Travel Shares in Key Corridors



Source: Amtrak

Figure 13. Average Amtrak trip lengths (by business line and systemwide)



Source: Amtrak

While major stations are significant generators of ridership, one of the benefits of Amtrak service is the ability to reach a wide range of destinations large and small in the vicinity surrounding and between megaregions. Most trips on Amtrak are fewer than 250 miles in length—highlighting the importance of both the shorter distance corridors to Amtrak's future, and the ability to serve the communities between the major metropolitan areas that provide our riders with a wide range of travel choices.

If intercity passenger rail services were expanded to serve the growth in corridors of fewer than 500 miles, the result would be a tremendous benefit not only for the country—which would reduce its emissions and fuel consumption—but for individual travelers, who would reap the benefits of more capacity and less wasteful travel in the marketplace even if they do not use the trains.

By simply maintaining the status quo, our nation would miss out on enormous opportunities to connect communities across America. The present Amtrak legacy network is a great resource—but it should be improved and expanded to better meet America's changing travel needs, now and in the future. With strategic investment in Amtrak's portfolio of existing and projected routes, new and expanded market-focused intercity passenger rail corridors could efficiently be established around the nation.

06

Analysis Supporting Amtrak's Corridor Development Vision

Amtrak thoroughly analyzed population centers and travel markets for the vision's technical framework. Drawing on existing work in the field and our own expertise, we identified approximately 60 passenger rail markets for initiation or expansion. These potential corridors would, if they were developed, help address the needs of currently underserved population centers and rural areas, provide travelers with convenient travel alternatives, and alleviate congestion on America's highways and aviation system. More intercity passenger rail service is a winning proposition by growing construction and operations jobs, creating economic activity, as well as meeting people and community needs.

Under Amtrak's vision, the complete set of corridors would be implemented over fifteen years. While high-speed rail service may be right for certain corridors, current state-supported Amtrak services such as the *Pacific Surfliner* and the *Hiawatha* show that intercity passenger rail can be successful with conventional operating speeds. As corridors which begin at conventional speeds build ridership and demand, they can be considered for future conversion to high-speed service.

Cleveland, Ohio

METHODOLOGY

Preliminary City Pair Selection

From its unique position as America's only coast-to-coast rail passenger operator, Amtrak undertook a data-driven nationwide analysis, unconstrained by state borders or other limitations, to develop a comprehensive list of city pairs with potential for intercity passenger rail viability. Several techniques provided lists of candidate corridors:

RESEARCH

- Examined commercially underserved existing short-distance markets.
- Identified candidate rail corridors in population megaregions (the Regional Plan Association (RPA) "America 2050: High Speed Rail In America" report[18]).

DEMOGRAPHIC DATA ANALYSIS

- Assembled population-distance relationships ("gravity model").
- Analysis of "America 2050" and other data to identify corridors predicted to have the greatest ridership demand based on population size, economic activity, transit connections, existing travel markets and urban density.

AMTRAK ANALYSIS AND MARKET JUDGEMENTS

- Combine the top-ranking city pairs from the gravity model analysis and the America 2050 synthesis to create a list of about 50 high-potential new passenger rail corridors, plus about 20 additional state initiatives, to advance for further analysis.
- Use the Federal Railroad Administration (FRA) CONNECT model, which forecasts demand and costs at a very high level, to initially screen candidate corridors, benchmark them, and provide initial estimates for new corridors not served by Amtrak.

FINANCIAL ANALYSIS

- Calculate high-level financial performance estimates for each corridor based on operating cost estimates plus ridership and revenue forecasts.
- Develop conceptual schedules.
- Forecast demand-model output, and utilize existing and historical ridership data, where available, to validate the baseline conditions.
- Estimate the public operating funding cost for each corridor, advancing the best scoring corridors. These include entirely new corridors, as well as extensions and increased train frequencies on existing corridors.

CAPITAL

- Estimate capital needs by assessing infrastructure conditions and capacity through already completed studies (when available) or assembling corridor data from various sources and quantitatively assessing probable costs.
- Develop equipment and facility requirements for individual corridors, combining resources on adjoining corridors where practical.
- Identify potential new stations.

COMPILATION

- Active state-sponsored passenger rail projects where Amtrak is an active participant were merged into this list.
- About sixty corridors came from the merged state-initiative list and Amtrak analysis.

A more detailed description of Amtrak's analysis can be found in the Appendix.

18. America 2050, "High Speed Rail In America, 2011." https://s3.us-east-1.amazonaws.com/rpa-org/pdfs/2050-High-Speed-Rail-in-America.pdf

At this stage, Amtrak shared its analysis with its state funding partners and aligned our analysis with state rail plans. **It should be noted that decisions for implementation, including project initiation, level of service, and stations served, will be collaboratively agreed to by states, Amtrak, and other partners before moving forward.**

Amtrak looks forward to discussing the details of each corridor with stakeholders as part of reaching agreement prior to commencing implementation. Stakeholder agreements address complex sets of issues and these choices are mutually determined.

The following tables summarize the geography and projected performance measures of these new and expanded corridors shown in the map in Figure 6. The summaries of the envisioned corridors are based on the analytical elements as previously described.

Figure 14. Data/Icon Legend for Tables 2-6

Public Operating Funding per New Passenger	$ Up to $25		$$ $25 - $50	$$$ Over $50
New Passengers (000s)	Up to 100	100 - 200	200 - 300	Over 300
Infrastructure Cost Per New Passenger for Full Buildout	$0 - $250		$250 - $500	Over $500


EMERGENCY EXIT

WESTERN CORRIDORS

Prior to initiating any new corridor service, Amtrak will collaborate with stakeholders on schedules, trip frequencies, infrastructure and equipment needs, station facilities, funding, implementation roles, and contractual agreements.

Capitol Corridor

Auburn – Sacramento – Oakland – San Jose

The California State Rail Plan has been adopted for the vision:

- **Expand from 7 to 24 round trips between San Jose – Oakland**
- **Expand from 15 to 20 round trips between Oakland – Sacramento with 10 round trips extending to Roseville from Sacramento, including one to Auburn**

Most trips run end-to-end San Jose – Sacramento/Roseville for seamless travel within the corridor.

San Joaquins

Central Valley – Oakland/Sacramento

The vision reflects Amtrak connections to the California High Speed Rail (CAHSR) Central Valley initial operating segment, which includes:

- **6 round trips between Merced – Sacramento**
- **5 round trips between Merced – Martinez for *Capitol Corridor* connection to the Bay Area**

This route restructuring complements CAHSR's initial Central Valley operating segment between Merced and Bakersfield with efficient connections. In addition, the Amtrak Thruway network will continue to leverage the passenger rail assets to serve communities and provide transportation options between Bakersfield and the Los Angeles area.

Central Coast

San Luis Obispo – Salinas – San Jose

The California State Rail Plan has been adopted for the vision:

- **3 new round trips between San Luis Obispo – San Jose augmented by Amtrak's *Coast Starlight* and Thruway service**

This new corridor connects with *Surfliners* to Southern California, *Capitol Corridor* to the east Bay area and Sacramento, and Caltrain to San Francisco. Amtrak will collaborate with stakeholders on plans for Caltrain initiating many frequencies between Salinas – Gilroy – San Jose – San Francisco.

Pacific Surfliner

San Luis Obispo – Los Angeles – San Diego

The California State Rail Plan has been adopted for the vision:

- **Expand from 13 to 33 round trips between San Diego – Los Angeles**
- **Expand from 5 to 17 round trips between Los Angeles – Goleta with 8 round trips extending to San Luis Obispo from Goleta**

Most trips to/from Goleta will run through Los Angles to/from San Diego for seamless travel within the corridor.

Las Vegas

Las Vegas – Los Angeles

Amtrak proposes a new corridor to serve this heavily-traveled route; the vision includes:

- **2 round trips between Las Vegas – Los Angeles**

This new corridor links Las Vegas with the extensive California and Amtrak passenger rail network at various locations including Los Angeles Union Station, Fullerton, and San Bernardino.

Coachella Valley

Los Angeles – Palm Springs – Indio

The Riverside County Transportation Commission, Caltrans, and the FRA alternative analysis study proposed service; the vision includes:

- **4 round trips between Coachella Valley – Los Angeles**

This new corridor links Coachella Valley with the extensive California and Amtrak passenger rail network at Los Angeles Union Station.

WESTERN CORRIDORS, CONTINUED

Los Angeles – Phoenix – Tucson

Phoenix and Tucson are large metropolitan areas and popular destinations with minimal passenger rail service today; the vision includes:

- **1 round trip between Tucson – Phoenix – Los Angeles**

This new daytime corridor links the rapidly growing Phoenix and Tucson areas to Los Angeles with daily service, in addition to Amtrak long distance service on the *Sunset Limited* which currently bypasses Phoenix. Before proceeding, Amtrak will collaborate with various stakeholders to analyze restoration of the Union Pacific Phoenix West Line to resume access to Phoenix.

Buckeye – Phoenix – Tucson

Amtrak proposes this route to serve this rapidly emerging region; the vision includes:

- **3 round trips between Tucson – Phoenix – Buckeye**

This new daytime corridor links the rapidly growing Phoenix and Tucson areas with daily multi-frequency service between downtown Tucson through Phoenix to the western suburb of Buckeye.

Amtrak Cascades

Vancouver – Seattle – Portland – Eugene

The Washington State Rail Plan and Oregon Environmental Impact Study for the Cascade Corridor list service improvements; the vision includes:

- **Expand from 4 to 13 round trips between Seattle – Portland, OR**
- **Expand from 2 to 6 round trips between Portland – Eugene, OR**
- **Expand from 2 to 4 round trips between Seattle – Vancouver, BC**

This emerging corridor has already captured significant Seattle-Portland passenger market share due in part to previous infrastructure improvements. Interest exists to support development of a dedicated high-speed rail corridor between Vancouver, Seattle, and Portland.

Figure 15. Western Corridors

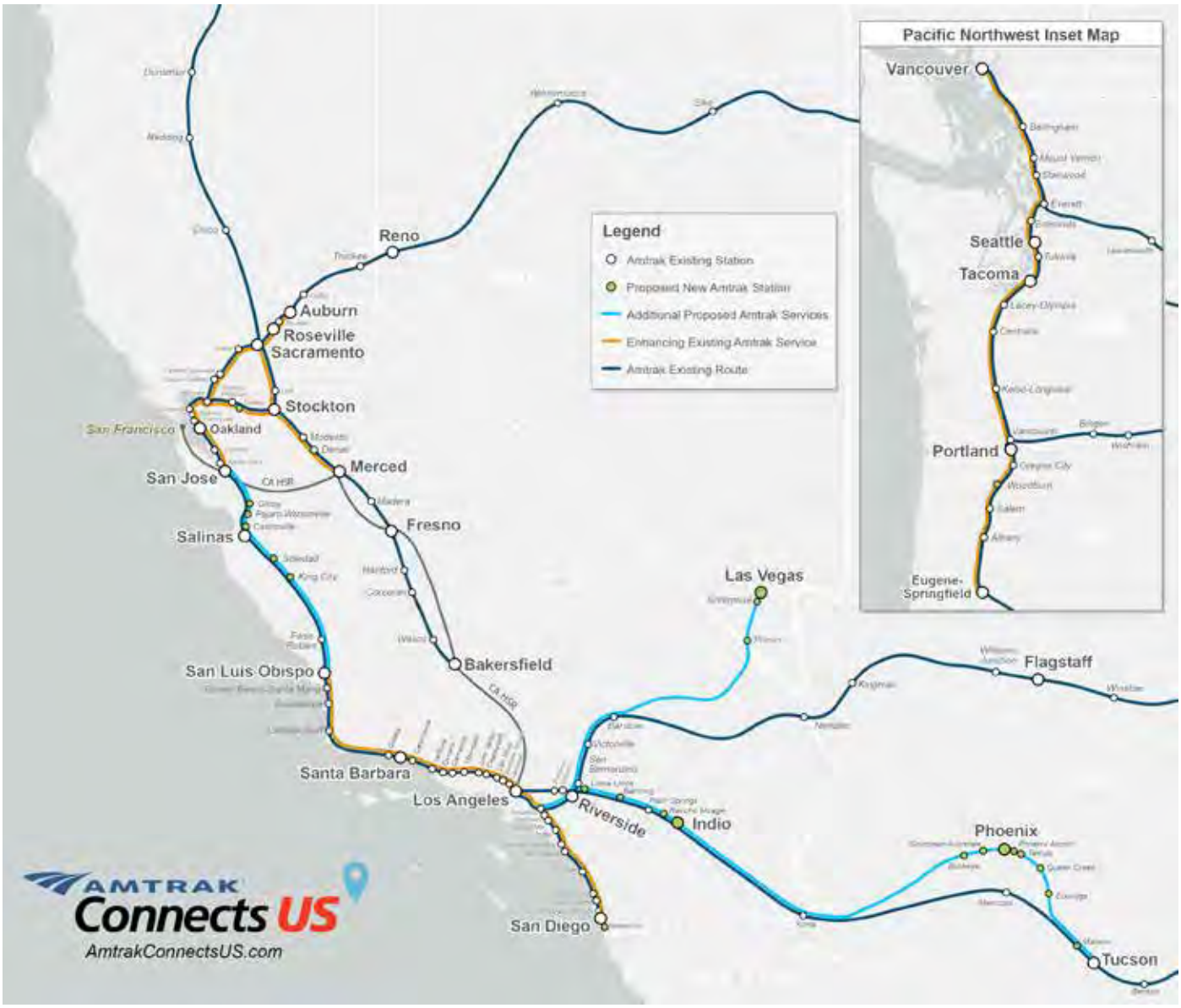


Table 2. Western Corridors Details

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation Existing Service / No Service
Northern California					
Capitol Corridor *Auburn/Roseville - Sacramento - Oakland - San Jose*	168	3:50	**2:52** Sacramento - Oakland - San Jose	PCJPB, UP	15 RTs between Sacramento-Oakland • 7 RTs extend to San Jose from Oakland • 1 RT extends to Auburn from Sacramento
San Joaquins *Merced - Martinez/Sacramento*	114	2:18	**2:18** Merced-Sacramento	BNSF, UP	5 RTs to Oakland-Bakersfield 2 RTs to Sacramento-Bakersfield
Central Coast *San Jose - Salinas - San Luis Obispo*	203	4:48	**4:48** San Jose - San Luis Obispo	PCJPB, UP	
Southern California					
Pacific Surfliner *San Diego - Los Angeles - San Luis Obispo*	359	8:20	**3:05** San Diego - Los Angeles	BNSF, NCTD, SCRRA, UP	13 RTs Los Angeles - San Diego • 5 RTs extend to Goleta from Los Angeles • 2 RTs extend to San Luis Obispo from Goleta (augmented with 1 RT Los Angeles - San Jose - Seattle)
Las Vegas *Los Angeles - Las Vegas*	334	6:45	**6:45** Los Angeles - Las Vegas	BNSF, SCRRA, UP	
Coachella Valley *Los Angeles - Indio*	140	3:12	**3:12** Los Angeles - Indio	BNSF, SCRRA, UP	
Arizona					
LA - Phoenix/Tucson *Los Angeles - Phoenix - Tucson*	559	10:11	**7:43** Los Angeles - Phoenix	BNSF, SCRRA, UP	
Phoenix-Tucson *Buckeye - Phoenix - Tucson*	154	3:05	**2:25** Phoenix - Tucson	UP	
Washington, Oregon and British Columbia					
Cascades *Vancouver - Seattle - Portland - Eugene*	461	9:18	**2:30** Seattle - Portland	BNSF, UP, Sound Transit	4 RTs between Seattle and Portland 2 RTs extend to Vancouver from Seattle 2 RTs extend to Eugene from Portland

Table 2. Western Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$			Northern California
Expand to 20 RTs Sacramento - Oakland • Extend 10 RTs to Roseville from Sacramento Expand to 24 RTs San Jose - Oakland	$$$			Capitol Corridor
5 RTs to Martinez (Oakland) - Merced (CAHSR Bakersfield) 6 RTs to Sacramento - Merced (CAHSR Bakersfield)	$			San Joaquins
Initiate 3 RTs San Luis Obispo-San Jose	$$$			Central Coast
	$$$			Southern California
Expand to 33 RTs Los Angeles - San Diego • Extend 17 RTs to Goleta from Los Angeles • Extend 8 RTs to San Luis Obispo from Goleta (augmented with 1 RT Los Angeles - San Jose - beyond)	$$$			Pacific Surfliner
Initiate 2 RTs Los Angeles-Las Vegas	$$$			Las Vegas
Initiate 4 RTs Los Angeles-Indio	$			Coachella Valley
	$$$			Arizona
Initiate 1 RT Los Angeles-Tucson	$$$			Los Angeles - Phoenix/Tucson
Initiate 3 RTs Phoenix-Tucson • Extend 3 RTs to Buckeye from Phoenix (augmented with Los Angeles-Tucson-New Orleans)	$$$			Phoenix - Tucson
	$$			WA, OR, B.C.
Expand to 13 RTs Seattle-Portland Expand to 4 RTs extensions to Vancouver from Seattle Expand to 6 RTs extensions to Eugene from Portland	$$			Cascades

CENTRAL CORRIDORS

Prior to initiating any new corridor service, Amtrak will collaborate with stakeholders on schedules, trip frequencies, infrastructure and equipment needs, station facilities, funding, implementation roles, and contractual agreements.

Denver Union Station

Front Range

Pueblo – Colorado Springs – Denver – Fort Collins – Cheyenne

Amtrak proposes this route to serve this rapidly emerging region; the vision includes:

- **3 initial round trips between Pueblo – Fort Collins with 1 round trip extending to Cheyenne**

Many combinations of investment, frequency, and trip time are possible. This new corridor provides Colorado Front Range residents with increased mobility options with Denver as the midpoint anchor.

Texas Triangle

Houston – Dallas – Fort Worth – Austin – San Antonio

These corridors link four of the largest 31 metropolitan areas; the vision includes:

- **3 round trips between Houston – Dallas/Fort Worth**
- **3 round trips between Houston – San Antonio**
- **2 round trips between Dallas/Fort Worth – Austin – San Antonio**

These new corridors provide Texas residents with increased mobility options among Texas's largest cities. The potential development of a new high-speed rail corridor between Dallas and Houston will be considered when determining the prioritization and development of these corridors.

Heartland Flyer

Dallas/Fort Worth – Oklahoma City – Newton

This corridor extends the existing Heartland Flyer to link to Amtrak's *Southwest Chief*; the vision includes:

- **Expand from 1 to 3 round trips between Oklahoma City – Fort Worth, connecting with Texas Triangle services to Dallas, Houston, Austin, and San Antonio**
- **Extend 1 Fort Worth – Oklahoma City round trip to Newton, KS for a connection with Amtrak's *Southwest Chief***

This new corridor provides Texas and Oklahoma residents with increased mobility options between their states, as well as improved connections with Amtrak's national network.

Figure 16. Central Corridors

Table 3. Central Corridors Details

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
Texas					
Texas Triangle *San Antonio - Fort Worth - Dallas*	310	7:02	**6:00** San Antonio - Fort Worth	BNSF, TRE, UP	
Texas Triangle *Houston - Dallas - Fort Worth*	297	5:33	**4:30** Houston - Dallas	TRE, UP	
Texas Triangle *San Antonio - Houston*	210	4:45	**4:45** San Antonio - Houston	UP	
Colorado, Oklahoma, and Kansas					
Front Range *Pueblo - Denver - Cheyenne*	240	5:34	**2:43** Pueblo - Denver	BNSF, UP	
Heartland Flyer *Fort Worth - Oklahoma City - Newton, KS*	404	9:04	**4:02** Fort Worth - Oklahoma City	BNSF	1 RT Fort Worth - Oklahoma City

Table 3. Central Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$$	👥	🛠	Texas
Initiate 2 RTs Dallas/Fort Worth - San Antonio (augmented with 1 RT Chicago - San Antonio)	$	👥👥	🛠	Texas Triangle
Initiate 3 RTs Houston - Dallas/Fort Worth	$$	👥👥	🛠🛠	Texas Triangle
Initiate 3 RTs Houston - San Antonio	$$	👥	🛠	Texas Triangle
	$$$	👥	🛠🛠	CO, OK, KS
Initiate 3 RTs Fort Collins - Denver - Pueblo • Extend 1 RT to Cheyenne from Fort Collins	$$$	👥	🛠🛠	Front Range
Expand to 3 RTs Fort Worth - Oklahoma City • Extend 1 RT to Newton from Oklahoma City to connect with Amtrak's Chicago - Los Angeles *Southwest Chief*	$$$	🧍	🛠🛠🛠	Heartland Flyer

MIDWESTERN CORRIDORS

Prior to initiating any new corridor service, Amtrak will collaborate with stakeholders on schedules, trip frequencies, infrastructure and equipment needs, station facilities, funding, implementation roles, and contractual agreements.

Hiawatha Corridor

Chicago – Milwaukee

Already the Midwest's highest volume route, the Wisconsin and Illinois Departments of Transportation are planning frequency increases; the vision includes:

- **Expand from 7 to 10 round trips Chicago – Milwaukee**

This expanded corridor provides Wisconsin residents with increased mobility options between the state's largest city and Chicago, including connections with many other Midwest routes.

Madison Hiawatha Extension

Madison – Milwaukee – Chicago

The vision to extend the successful *Hiawatha* corridor west includes:

- **Extend 4 Chicago – Milwaukee *Hiawatha* round trips to Madison**

This new corridor provides Dane County residents, businesses and visitors with increased mobility options between the state's capital and its largest city, as well as service to Chicago.

Green Bay Hiawatha Extension

Green Bay – Milwaukee – Chicago

The vision to extend the successful *Hiawatha* corridor north includes:

- **Extend 3 Chicago – Milwaukee round trips to Green Bay**

This new corridor provides Green Bay and Fox Valley residents with increased mobility options to the state's largest city, as well as service to Chicago.

MIDWESTERN CORRIDORS, CONTINUED

TCMC

Twin Cities (Minneapolis – St. Paul) – Milwaukee – Chicago

The Wisconsin and Minnesota Departments of Transportation jointly envision an additional daily frequency between the Twin Cities of Minneapolis and St. Paul, Milwaukee, and Chicago. Additional frequencies are described in the Wisconsin State Rail Plan; the vision includes:

- **Extend 3 Chicago – Milwaukee *Hiawatha* round trips to Minneapolis – St. Paul. Trips are split between two routes, one via La Crosse, WI, the other via Eau Claire, WI**
- **Amtrak's *Empire Builder* provides a fourth daily trip via the existing La Crosse route**

This new corridor provides central Wisconsin residents with increased mobility options among the region's largest cities.

Northern Lights Express/NLX

Duluth – Superior – Minneapolis

The Minnesota Department of Transportation proposes this service; the vision includes:

- **4 round trips between Duluth – Superior – Minneapolis**

This new corridor provides residents of the Twin Ports of Duluth/Superior with increased mobility options to and from the state's largest metropolitan area.

Lincoln Service

Chicago – St. Louis

The Illinois Department of Transportation is implementing speed increases to 110 mph; the vision includes:

- **4 round trips between Chicago – St. Louis with speeds up to 110 mph**
- **1 round trip runs through to Kansas City in the *Missouri River Runner* service**

The *Lincoln Service* vision is for better-than-car trip-times to grow market share and increase mobility options among Chicago, St. Louis, and downstate Illinois communities.

Quad Cities

Iowa City – Moline – Chicago

The Illinois and Iowa Departments of Transportation are proposing this corridor; the vision includes:

- **2 round trips between Iowa City – Moline – Chicago**

This new corridor increases mobility options for Western Illinois and Eastern Iowa to link with Chicago and other Midwest corridors.

Rockford

Rockford – Chicago

The Illinois Department of Transportation has funding to start this rail passenger service in the next few years; the vision includes:

- **2 round trips between Rockford – Chicago**

This new corridor increases mobility options for Northern Illinois communities to link with Chicago and other Midwest corridors.

Illini/Saluki

Carbondale – Champaign – Chicago

The Illinois Department of Transportation has funding to improve performance in the next few years; the vision includes:

- **Reduce trip times on 2 existing round trips between Carbondale – Chicago**
- **1 new round trip Champaign – Chicago**

Better corridor service increases mobility options for Eastern and Southern Illinois to link with Chicago and other Midwest corridors.

Cleveland – Detroit

Cleveland – Toledo – Detroit

This is a new interstate corridor; the vision includes:

- **3 round trips between Cleveland – Toledo – Detroit**

This new corridor connects large Midwest cities, connects with proposed and new corridor services in Cleveland and Detroit, and ties to long distance rail service across northern Ohio.

MIDWESTERN CORRIDORS, CONTINUED

3C+D

Cleveland – Columbus – Cincinnati

The vision for this new corridor includes:

- **3 round trips between Cleveland – Columbus – Cincinnati**

This new corridor links Ohio's largest cities as well as connecting to other proposed corridor services in Cleveland and Cincinnati.

Wolverine

Chicago – Detroit/Pontiac

The Michigan Department of Transportation is implementing speed increases to 110 mph in this interstate corridor; the vision includes:

- **Expand from 3 to 6 round trips between Chicago – Detroit with speeds up to 110 mph**

The *Wolverine* vision is for better-than-car trip-times to grow market share and increase mobility options among several Michigan communities, Detroit, and Chicago.

Toronto – Chicago

Toronto – Detroit – Chicago

Amtrak proposes this international route to connect large North American metropolitan areas; the vision includes:

- **Extend 1 *Wolverine* round trip to Toronto using a newly redeveloped Michigan Central Terminal**

This new corridor links large urban areas across the international border where today there are two disconnected passenger rail routes. Infrastructure, station, and routing challenges will need to be overcome; along with potential partnership opportunities exist with VIA Rail Canada.

Pere Marquette

Chicago – Grand Rapids

The vision for this interstate corridor includes:

- **Expand from 1 to 3 round trips between Chicago – Grand Rapids, MI**

The *Pere Marquette* vision is to increase mobility options for Western Michigan.

Blue Water

Chicago – Port Huron

Amtrak proposes to expand service across Michigan; the vision includes:

- **Expand from 1 to 2 round trips between Chicago – Port Huron, MI**

The *Blue Water* vision is to increase mobility options for Michigan, including for the state capital.

Chicago – Cincinnati

Chicago – Indianapolis – Cincinnati

Chicago – Louisville

Chicago – Indianapolis – Louisville

These two interstate corridors share a common segment between Chicago and Indianapolis, IN; the vision includes:

- **4 round trips between Chicago – Indianapolis – Cincinnati**
- **4 round trips between Chicago – Indianapolis – Louisville**

These new corridors deliver travel market benefits with better-than-car trip-times due to 110 mph speeds the for eight round trips between Chicago and Indianapolis as well as benefits to the Cincinnati and Louisville extensions.

Figure 17. Midwestern Corridors

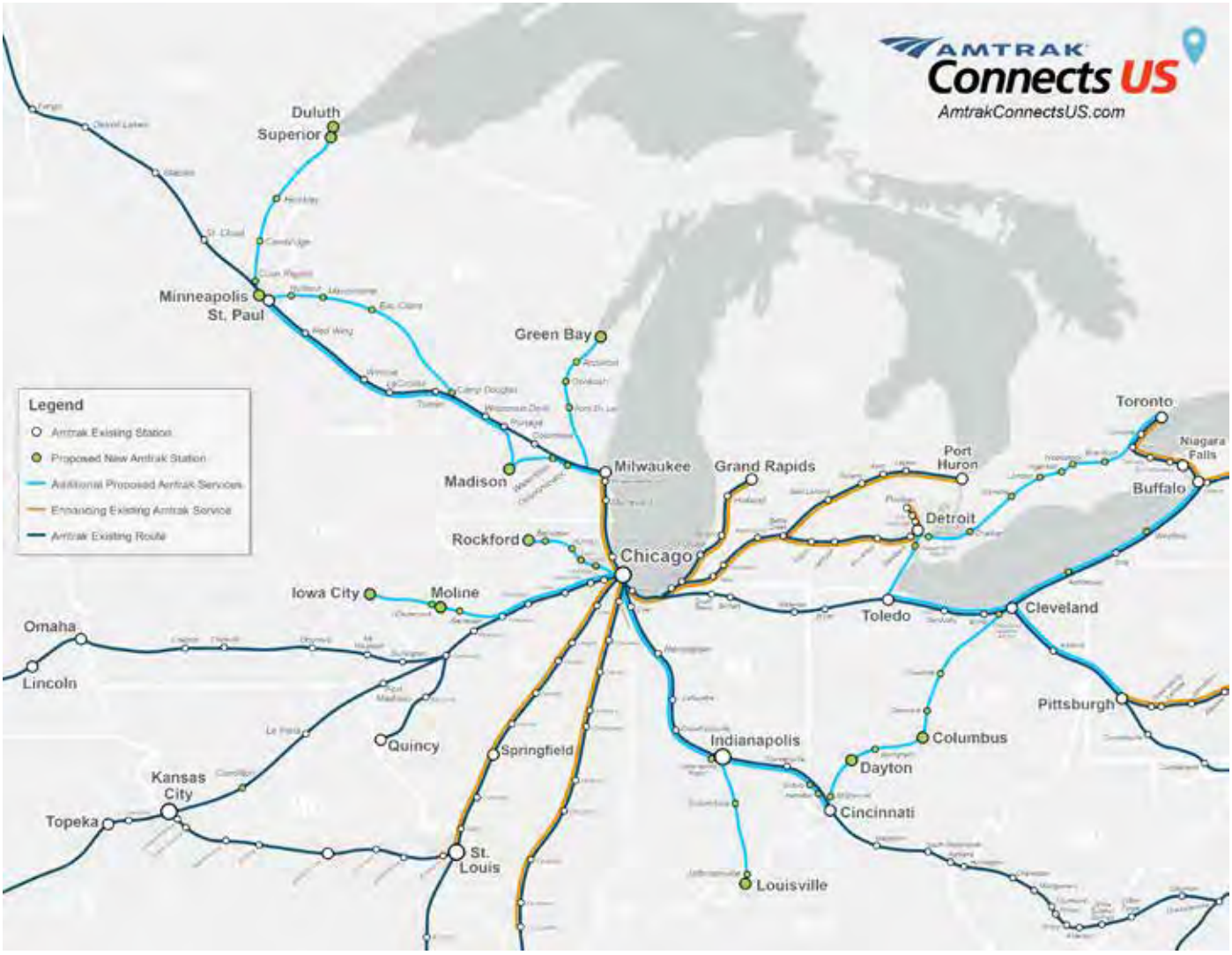


Table 4. Midwestern Corridors Details

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
Wisconsin					
Hiawatha *Chicago - Milwaukee*	86	1:30	**1:30** Chicago - Milwaukee	CP, Metra	7 RTs Chicago - Milwaukee
Madison *Chicago - Milwaukee - Madison*	168	3:18	**1:48** Milwaukee - Madison	CP, WSOR	
Green Bay *Chicago - Milwaukee - Green Bay*	225	4:20	**2:50** Milwaukee - Green Bay	CP, CN	
Minnesota					
TCMC *Chicago - Milwaukee - Madison - St. Paul - Minneapolis*	444	8:36	**6:45** Milwaukee - St. Paul	CP, Metra, WSOR, MC	
Northern Lights Express *Minneapolis - Duluth*	148	2:35	**2:35** Minneapolis - Duluth	BNSF	
Illinois					
Lincoln *Chicago - St. Louis*	287	4:30	**4:30** Chicago - St. Louis	Amtrak, Metra, KCS, TRRA, UP	4 RTs Chicago - St. Louis (augmented with 1 RT Chicago - San Antonio)
Quad Cities *Chicago - Moline - Iowa City*	218	3:59	**2:57** Chicago - Moline	BNSF, IAIS	
Rockford *Chicago - Rockford*	88	1:51	**1:51** Chicago - Rockford	Metra, UP	
Illini/Saluki *Chicago - Champaign - Carbondale*	309	4:58	**2:08** Chicago - Champaign	Amtrak, CN	2 RTs Chicago - Carbondale (augmented with 1 RT Chicago - New Orleans)

Table 4. Midwestern Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$$	👥	1 shovel	**Wisconsin**
Expand to 10 RTs Chicago - Milwaukee	$$	👥	1 shovel	**Hiawatha**
Extend 4 *Hiawatha* RTs to Madison from Milwaukee	$$	👥	1 shovel	**Madison**
Extend 3 *Hiawatha* RTs to Green Bay from Milwaukee	$$	👥	2 shovels	**Green Bay**
	$$	👥👥	1 shovel	**Minnesota**
Extend 3 *Hiawatha* Madison RTs to St. Paul/Minneapolis (augmented with 1 RT Chicago - Seattle/Portland)	$$	👥👥	1 shovel	**TCMC**
Initiate 4 RTs Minneapolis - Duluth	$$	👥👥	1 shovel	**Northern Lights Express**
	$	👥	1 shovel	**Illinois**
Reduce trip time Chicago - St. Louis • 1 RT runs through St. Louis with *Missouri River Runner* (augmented with 1 RT Chicago - San Antonio)	$	👥👥	1 shovel	**Lincoln**
Initiate 2 RTs Chicago - Moline - Iowa City	$	👥👥	1 shovel	**Quad Cities**
Initiate 2 RTs Chicago - Rockford	$	👥	1 shovel	**Rockford**
Expand with 1 RT between Chicago - Champaign • Reduce trip time Chicago - Carbondale (augmented with 1 RT Chicago - New Orleans)	$	1 person	1 shovel	**Illini/Saluki**

Table 4. Midwestern Corridors Details (Continued)

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
Ohio					
Cleveland - Detroit *Cleveland - Toledo - Detroit - Pontiac*	197	4:02	**3:18** Cleveland - Detroit	CN, Conrail, NS, CSX, Amtrak	
3C+D *Cleveland - Columbus - Cincinnati*	250	5:30	**2:52** Cleveland - Columbus	CSX, NS	
Michigan					
Wolverine *Chicago - Detroit - Pontiac*	308	5:35	**4:45** Chicago - Detroit	Amtrak, CN, NICTD, CSSB, MIDOT, Conrail	3 RTs Chicago - Detroit/Pontiac
Detroit - Toronto *Chicago - Detroit - Toronto*	515	9:57	**4:46** Detroit MC Station - Toronto	MIDOT, Conrail, CP, ETR, CN, VIA, GO	
Pere Marquette *Chicago - Grand Rapids*	182	3:41	**3:41** Chicago - Grand Rapids	Amtrak, CN, NICTD, CSSB, CSX	1 RT Chicago - Grand Rapids
Blue Water *Chicago - Port Huron*	323	6:38	**6:38** Chicago - Port Huron	Amtrak, CN, NICTD, CSSB	1 RT Chicago - Port Huron
Indiana					
Indianapolis *Chicago - Indianapolis - Cincinnati*	319	6:10	**3:35** Chicago - Indianapolis	CSX, CN, NICTD, Amtrak	Tri-weekly RT Chicago - New York
Indianapolis *Chicago - Indianapolis - Louisville*	312	5:45	**3:35** Chicago - Indianapolis	CSX, CN, NICTD, Amtrak, L&I	
Missouri					
River Runner *St. Louis - Kansas City*	282	5:35	**5:35** St. Louis - Kansas City	KCT, TRRA, UP	2 RTs St. Louis - Kansas City

Table 4. Midwestern Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$$			Ohio
Initiate 3 RTs Cleveland - Detroit/Pontiac	$$			Detroit - Cleveland
Initiate 3 RTs Cleveland - Columbus - Cincinnati	$			3C+D
	$$			Michigan
Expand to 6 RTs Chicago - Detroit/Pontiac • Extend 1 RT to Toronto from Detroit • Reduce trip time Chicago - Detroit	$$$			Wolverine
Initiate 1 RT *Wolverine* extension Detroit - Toronto	$			Detroit - Toronto
Expand to 3 RTs Chicago - Grand Rapids • Reduce trip time Chicago - Grand Rapids	$			Pere Marquette
Expand to 3 RTs Chicago - Port Huron	$$$			Blue Water
	$			Indiana
Expand to 8 RTs Chicago - Indianapolis • Extend 4 RTs to Cincinnati from Indianapolis	$			Indianapolis
Expand to 8 RTs Chicago - Indianapolis • Extend 4 RTs to Louisville from Indianapolis	$			Indianapolis
	$			Missouri
Extend 1 RT *Lincoln* Chicago – St. Louis through to Kansas City	$			River Runner

NORTHEASTERN CORRIDORS

Prior to initiating any new corridor service, Amtrak will collaborate with stakeholders on schedules, trip frequencies, infrastructure and equipment needs, station facilities, funding, implementation roles, and contractual agreements.

Downeaster

Boston – Portland – Rockland, ME

The vision for this route includes:

- **Reduce trip times between Boston – Portland – Brunswick, ME**
- **Increase frequency between Boston – Portland – Brunswick, ME or points in between**
- **Extend service seasonally from Brunswick to Rockland, ME**
- **Improve connectivity to the Amtrak network**

The Downeaster service increases mobility for Maine and New Hampshire areas to Boston and broader Northeast region connections.

Concord – Manchester – Boston

The vision for this new corridor includes:

- **5 round trips between Concord, NH – Manchester – Boston**

Subject to further analysis by stakeholders including New Hampshire, Massachusetts, and Amtrak, this new corridor service increases mobility for New Hampshire residents to and from Boston and broader Northeast region connections by providing multi-frequency service throughout the day.

Boston – Albany

Boston – Springfield – Albany

The vision for this new corridor includes:

- **2 round trips between Boston – Springfield – Albany**
- **Augmented by the Boston – Albany section of Amtrak's *Lake Shore Limited***

Building on MassDOT's E/W study, Amtrak will work with MassDOT and NYSDOT to determine feasibility of service between Boston and Albany. This new corridor service increases mobility for western Massachusetts and upstate New York to the Boston area and broader Northeast region connections.

Ethan Allen

New York City – Rutland-Burlington, VT

The Vermont Department of Transportation is pursuing extending the *Ethan Allen Express*; the vision includes:

- **Extend New York City – Rutland service to Burlington, VT**

The *Ethan Allen Express* service increases mobility among Vermont, New York City, upstate New York, and broader Northeast region connections.

Vermonter

Washington – New York City – St. Albans – Montreal

The vision is to extend the *Vermonter* from St. Albans, VT across the border to Montreal, Canada:

- **Extend New York City – St. Albans, VT service to Montreal, Canada**

The extended, international *Vermonter* increases mobility for Vermont residents to Montreal, New York City, and broader Northeast region connections.

Empire (Albany)

New York City – Albany/Rensselaer

The vision for improving this established corridor includes:

- **Expand to 17 round trips with trip times as low as 90 minutes New York – Albany**
- **9 daily round trips extending west and north of Albany (described elsewhere in this document)**

The Empire (Albany) service vision is for better-than-car trip-times with hourly frequencies to gain travel market share.

NORTHEASTERN CORRIDORS, CONTINUED

Empire (Upstate)

New York City – Albany/Rensselaer – Buffalo – Niagara Falls/Toronto/Cleveland

NYSDOT has identified service improvements to Western New York as a long-term planning goal, with continued investment in the route to expand capacity and improve travel times; the vision includes:

- **Extend 6 New York – Albany round trips to Buffalo and additional destinations, and reduce trip times**
- **5 round trips extend from Buffalo to Niagara Falls, of which 1 further extends to Toronto**
- **1 daily round trip extends from Buffalo to Cleveland (described elsewhere in this document)**
- **Augmented by Amtrak's *Lake Shore Limited***

The Empire (Upstate) service increases mobility for upstate New York residents to the broader Northeast region, Boston, and Montreal.

Cleveland – New York

Cleveland – Buffalo – Albany – New York

The vision for this interstate initiative includes:

- **Extend 1 New York City – Buffalo Empire (Upstate) round trip to Cleveland**
- **Augmented by Amtrak's *Lake Shore Limited***

This new corridor links cities across New York, western Pennsylvania, and eastern Ohio as well as connecting to corridor services envisioned in New York and Ohio. Amtrak proposes to work with NYSDOT, PennDOT, and ODOT to determine feasibility of this service.

Adirondack

New York City – Albany – Montreal

Amtrak, NYSDOT, and Canadian officials are planning improved international crossing processing; the vision includes:

- **Reduce trip time between New York City and Montreal**

The *Adirondack* connects the two major international cities of Montreal and New York, as well as Northern New York communities. Reduced trip times are projected to increase ridership and provide better rail connections on both ends of the corridor.

Long Island

Ronkonkoma – NEC/Washington

The Metropolitan Transportation Authority (MTA) and Amtrak are exploring plans for each provider to expand services on the other's route; the vision includes:

- **3 round trips between Ronkonkoma, NY – NEC/Washington**

This new corridor provides seamless one-seat rail service to and from eastern Long Island and NEC destinations between New York and Washington with three daily frequencies. Amtrak and NY MTA are also exploring bringing MTA service to New York Penn Station and stations in the Bronx along Amtrak's NEC route.

The five services in Pennsylvania in this Section 6 are in different planning stages and require significant time and financial support to advance, in addition to known or potential right-of-way, environmental, ownership, and/or operational obstacles. It is possible that a project could be deemed infeasible during the planning process and not advanced further.

Reading Service

Reading – Philadelphia – New York City

The vision for this interstate corridor includes:

- **3 round trips between Reading, PA – Philadelphia – New York City**

Subject to further analysis by stakeholders including Pennsylvania and Amtrak, this new corridor increases mobility for Reading and Philadelphia residents to and from the broader Northeast region with daily multi-frequency service.

Scranton Service

Scranton – New York

The vision for this interstate corridor includes:

- **3 round trips between Scranton, PA – New York City**

Subject to further analysis by stakeholders including Pennsylvania, New Jersey, and Amtrak, this new corridor increases mobility for Scranton and New York residents to and from the broader Northeast region with daily multi-frequency service.

NORTHEASTERN CORRIDORS, CONTINUED

Allentown Service

Allentown – New York

The vision for this interstate corridor includes:

- **2 round trips between Allentown, PA – New York City**

Subject to further analysis by stakeholders including Pennsylvania, New Jersey, and Amtrak, this new corridor increases mobility for Allentown and New York residents to and from the broader Northeast region.

Keystone Service

Harrisburg – Philadelphia – New York

The vision for improvements to this established corridor includes:

- **Expand to 17 round trips**
- **Reduce trip times by increasing speeds up to 125 mph Harrisburg – Philadelphia**

The *Keystone Service* vision is for better-than-car trip-times with hourly frequency to grow travel market share.

Pennsylvanian

New York – Philadelphia – Harrisburg – Pittsburgh – Cleveland

A second *Pennsylvanian* frequency extending into Ohio creates a new interstate Pittsburgh-Cleveland corridor; the vision includes:

- **Expand from 1 to 2 round trips between New York – Philadelphia – Pittsburgh, PA**
- **Extend 1 New York – Pittsburgh round trip to Cleveland, OH, augmented by the New York – Cleveland portion of Amtrak's *Capitol Limited***

Subject to further analysis by stakeholders including Pennsylvania, Ohio, and Amtrak, an extended *Pennsylvanian* increases mobility for Central and Western Pennsylvania as well as Eastern Ohio and expand access to and from New York City and the Northeast region, as well as new Ohio destinations.

Figure 18. Northeastern Corridors

Table 5. Northeastern Corridors Details

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
New England					
Downeaster *Boston - Portland - Brunswick - Rockland, ME*	145	3:05	**2:30** Boston - Portland	MBTA, PanAm (CSX)	5 RTs Boston - Portland/Brunswick
Manchester *Boston - Manchester - Concord*	73	2:15	**1:35** Boston - Manchester	MBTA, PanAm (CSX)	
E - W Massachusetts *Boston - Albany*	200	4:20	**4:20** Boston - Albany	CSX, MBTA	
Ethan Allen Express *New York - Rutland -Burlington, VT*	315	7:37	**7:37** New York - Burlington, VT	VTR, CP, Amtrak, MTA	1 RT New York - Rutland
Vermonter *Washington - St. Albans - Montreal*	674	15:07	**15:07** Washington - Montreal	CN, NECR, Amtrak, MTA	1 RT Washington - St. Albans, VT
Empire Services					
Empire (Albany) *New York - Albany*	141	2:15	**2:15** New York - Albany	Amtrak, CSX, MTA	7 RTs New York - Albany • Augmented with 2 RTs New York - Rutland/ Montreal and 4 RTs New York - Buffalo/Toronto/ Chicago
Empire (Upstate) *New York - Niagara Falls - Toronto*	548	10:40	**7:41** New York - Niagara Falls	Amtrak, MTA, CN, CSX, GO	3 RTs New York - Niagara Falls • 1 RT extends to Toronto (augmented with 1 RT New York - Chicago)
Cleveland - Buffalo *Cleveland - Buffalo*	618	10:00	**10:00** New York - Cleveland	Amtrak, MTA, CSX, NS	
Adirondack *New York - Montreal (via Albany)*	381	9:20	**9:20** New York - Montreal (via Albany)	Amtrak, MTA, CP,CN	1 RT New York - Montreal

Table 5. Northeastern Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$	🧍	⛏	New England
Extend to Rockland from Bruinswick seasonally Reduce trip time Boston - Brunswick	$	🧍	⛏	Downeaster
Initiate 5 RTs Boston - Concord	$$	🧍🧍	⛏	Manchester
Initiate 2 RTs Boston - Albany (augmented with 1 RT Boston - Chicago)	$$	🧍🧍	⛏⛏	E-W Massachusetts
Extend 1 RT to Burlington from Rutland	$$$	🧍	⛏	Ethan Allen Express
Extend 1 RT to Montreal from St. Albans	$	🧍🧍	⛏	Vermonter
	$	🧍🧍🧍	⛏⛏	Empire Services
Expand to 8 RTs New York - Albany • Reduce trip time New York - Albany (augmented with 2 RTs New York - Burlington/ Montreal and 7 RTs New York - Buffalo/Toronto/ Chicago	$	🧍🧍🧍🧍	⛏	Empire (Albany)
Expand to 5 RTs New York - Niagara Falls • Reduce trip time New York - Niagara Falls • Retain 1 RT extension to Toronto from Niagara Falls (augmented with 2 RTs New York - Cleveland/ Chicago)	$	🧍🧍🧍	⛏⛏⛏	Empire (Upstate)
Initiate 1 RT New York - Albany - Buffalo - Cleveland	$	🧍🧍	⛏	Cleveland - Buffalo
Reduce trip time New York - Montreal	$	🧍	⛏	Adirondack

Table 5. Northeastern Corridors Details (Continued)

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
Keystone Service					
Reading *New York - Philadelphia -Reading*	155	2:55	**1:37** Philadelphia - Reading	Amtrak, NS, CSX	
Scranton *New York - Scranton*	136	3:25	**3:25** New York - Scranton	Amtrak, NJT, DL	
Allentown *New York - Allentown*	99	2:45	**2:45** New York - Allentown	Amtrak, NJT, NS	
Keystone *New York - Philadelphia - Harrisburg*	202	2:54	**1:38** Philadelphia - Harrisburg	Amtrak	12 RTs Harrisburg - Philadelphia/ New York (augmented with 1 RT to Pittsburgh)
Pennsylvanian *New York - Philadelphia - Pittsburgh - Cleveland*	590	11:37	**6:58** Philadelphia - Pittsburgh	Amtrak, NS	1 RT New York - Philadelphia - Pittsburgh
Other					
Long Island *NEC locations - NY Penn - Ronkonkoma, NY*	50	1:25	**1:25** NY Penn - Ronkonkoma	LIRR	

Table 5. Northeastern Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$			Keystone Services
Initiate 3 RTs New York - Reading	$			Reading
Initiate 3 RTs New York - Scranton	$			Scranton
Initiate 2 RTs New York - Allentown	$			Allentown
Expand to 17 RTs Harrisburg-Philadelphia/New York • Reduce trip time Harrisburg - Philadelphia/New York (augmented with 2 RTs to New York - Pittsburgh/ Cleveland)	$$			Keystone
Expand to 2 RTs New York - Philadelphia - Pittsburgh • Extend 1 RT to Cleveland from Pittsburgh	$$			Pennsylvanian
	$			Other
Initiate 3 RTs Ronkonkoma - New York/NEC	$			Long Island

New Orleans Union Passenger Terminal

SOUTHEASTERN CORRIDORS

Prior to initiating any new corridor service, Amtrak will collaborate with stakeholders on schedules, trip frequencies, infrastructure and equipment needs, station facilities, funding, implementation roles, and contractual agreements.

New River Valley

New York – Washington – Roanoke – New River Valley

The vision for a second frequency to Roanoke and extending service beyond Roanoke to the New River Valley includes:

- **Expand from 1 to 2 round trips between New York City – Roanoke, VA**
- **Extend 2 New York City – Roanoke round trips to New River Valley**

The *New River Valley* corridor increases mobility for Central and Western Virginia to Washington, DC and the broader Northeast region. Virginia recently enacted legislation to support this plan.

Richmond/Norfolk/Newport News

New York – Washington – Richmond – Newport News/ Norfolk/North Carolina

The Virginia Department of Rail and Public Transportation (DRPT) and Amtrak have agreed to six additional round trips: four new between Washington, DC and Richmond, VA, one new frequency to Newport News and one new frequency to Norfolk. In addition, Amtrak's participation with the Southeast Corridor planning process developed a plan that integrates Virginia and North Carolina frequencies with additional projects. The vision includes:

- **Expand from 1 to 5 round trips between New York City – Richmond Main Street Station**
- **Expand from 2 to 3 round trips between New York City – Norfolk, VA**
- **Expand from 2 to 3 round trips between New York City/ Boston, MA – Newport News, VA**
- **New NEC – Washington – Richmond – Raleigh/Charlotte services overlays with 6 round trips**

The expanded service extends the NEC to Richmond, VA to increase mobility in the I-95 corridor and enhance Virginia's connection with the broader Northeast region. Virginia recently enacted legislation and reached agreements with Amtrak and CSXT to fund and implement much of this plan.

Carolinian and Piedmont

New York – Washington – Richmond – Raleigh – Charlotte

The Southeast Corridor Commission, with participation from the North Carolina Department of Transportation (NCDOT), is progressing with reactivating a direct rail route between Raleigh and Petersburg, VA near Richmond, VA (the "S Line") to support the Southeast Corridor plan. The vision includes:

- **Expand the number of daily round trips between Charlotte, NC – Raleigh, NC – Richmond – New York City from one *Carolinian* trip daily to multiple frequencies throughout the day**
- **Expand the number of *Piedmont* daily round trips between Charlotte – Raleigh**

The Southeast Corridor, including *Carolinian* and *Piedmont* services, will link major Southeastern metropolitan areas with each other and with the Northeast, providing increased mobility for North Carolina and the entire Southeast.

Western NC

Asheville – Salisbury

The vision for this new corridor includes:

- **New service between Asheville, NC – Salisbury, NC (connection to Southeast Corridor service and Charlotte – Raleigh services)**

This new corridor increases mobility options for Western North Carolina to link with several large North Carolina cities as well as the Northeast via Southeast Corridor/*Piedmont*/*Carolinian* connections at Salisbury.

Southeast NC

Wilmington – Raleigh

The vision for this new corridor includes:

- **New service between Wilmington, NC – Raleigh (connection to Southeast Corridor service and Charlotte – Raleigh services)**

This new corridor increases mobility options for Southeast North Carolina to link with several large North Carolina cities as well as the Northeast via Southeast Corridor/Piedmont/Carolinian connections at Raleigh.

SOUTHEASTERN CORRIDORS, CONTINUED

Atlanta – Charlotte Service

Atlanta – Charlotte

The vision for this new interstate corridor, part of the Southeast Corridor, includes:

- **3 round trips between Atlanta – Charlotte**
- **Extend 2 Atlanta – Charlotte round trips to Raleigh, NC as part of *Piedmont* service**
- **Augmented by Amtrak's *Crescent***

This new corridor connects the two largest Southeast business and population centers while increasing travel options through the communities along the Atlanta – Charlotte corridor, plus several corridor connections at Atlanta.

Atlanta – Nashville Service

Atlanta – Chattanooga – Nashville

The vision for this new interstate corridor includes:

- **2 round trips between Atlanta – Nashville**

This new corridor connects two large business and population centers in the Southeast while increasing travel options through the communities along the Atlanta – Nashville corridor, with several corridor connections at Atlanta plus Amtrak's *Crescent*.

Atlanta Hub

Atlanta – Charlotte/Nashville/Montgomery/Birmingham/ Savannah

Amtrak envisions these routes creating a passenger rail hub in Atlanta to serve this large and vibrant region; the vision includes:

- **Atlanta – Charlotte (described elsewhere in this document)**
- **Atlanta – Nashville (described elsewhere in this document)**
- **3 round trips between Atlanta – Montgomery**
- **1 round trip between Atlanta – Birmingham**
- **3 round trips between Atlanta – Macon – Savannah**

These new corridors connect large Southeast business and population centers while increasing travel options through the communities along each corridor, with several corridor connections and Amtrak's *Crescent* at Atlanta, as well Amtrak's *Palmetto* and *Silver Service* trains in Savannah.

Gulf Coast

Mobile – New Orleans

The Southern Rail Commission (SRC), Amtrak, and various stakeholders are collaborating to implement this corridor in early 2022; the vision includes:

- **2 round trips between Mobile – New Orleans**

This new corridor increases mobility options for Gulf Coast communities between Mobile and New Orleans, including connections with Amtrak's *Sunset Limited, City of New Orleans,* and *Crescent* at New Orleans.

Baton Rouge Service

Baton Rouge – New Orleans

The vision for this new corridor includes:

- **2 round trips between Baton Rouge – New Orleans**

This new corridor increases mobility options for communities between Baton Rouge and New Orleans including connections with Amtrak's *Sunset Limited, City of New Orleans,* and *Crescent* at New Orleans.

Florida Network

Jacksonville – Orlando – Tampa – Miami

Amtrak envisions intercity passenger rail corridors throughout Florida; the vision includes:

- **2 round trips between Jacksonville – Orlando – Tampa**
- **3 round trips between Tampa – Miami**
- **2 round trips between Orlando – Miami**
- **Augmented by Amtrak's Silver Service**

This new corridor connects rapidly growing Southeast business, population, and tourist centers while increasing travel options through the communities along these heavily traveled corridors.

Figure 19. Southeastern Corridors

Table 6. Southeastern Corridors Details

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
Virginia Service					
New River Valley *New York - Washington - Roanoke - New River Valley*	491	9:28	**5:49** Washington - New River Valley	Amtrak, NS, CSX	1 RT Washington - Roanoke
Richmond/Norfolk/ Newport News *New York - Washington - Richmond - Newport News/Norfolk*	445	8:13	**2:28** Washington - Richmond	Amtrak, NS, CSX	5 RTs Washington - Richmond Staples Mill Station • 2 RTs extend to Newport News from Richmond • 2 RTs extend to Norfolk from Richmond (augmented with 1 RT Washington - Charlotte and 3 RTs Washington - Savannah/Miami)
North Carolina Services					
Carolinian and Piedmont *Charlotte - Raleigh - Richmond - NEC Washington*	449	5:52	**3:12** Charlotte - Raleigh	Amtrak, CSX, SEHSR, NS	1 RT Charlotte - Richmond/NEC 3 RTs Charlotte - Raleigh
Western NC *Asheville - Salisbury*	139	3:45	**3:45** Asheville - Salisbury	NS	
Southeast NC *Wilmington - Raleigh*	132	2:48	**2:48** Wilmington - Raleigh	CSX, NS	
New Orleans Hub					
Gulf Coast *New Orleans - Mobile*	145	3:18	**3:18** New Orleans - Mobile	Amtrak, CSX, NS	
Baton Rouge *New Orleans - Baton Rouge*	79	1:34	**1:34** New Orleans - Baton Rouge	Amtrak, CN, KCS	

Table 6. Southeastern Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$$			Virginia Service
• Expand from 1 to 2 round trips between New York City – Roanoke, VA • Extend 2 New York City – Roanoke round trip to New River Valley	$$$			New River Valley
• Expand from 1 to 5 round trips between New York City – Richmond Main Street Station • Expand from 2 to 3 round trips between New York City – to Norfolk, VA • Expand from 2 to 3 round trips between New York City/Boston, MA – to Newport News, VA • New NEC – Washington – Richmond – Raleigh/ Charlotte, NC service overlays 6 Washington – Richmond round trips	$			Richmond/Norfolk/ Newport News
	$			North Carolina Service
• Expand the number of daily round trips between Charlotte, NC – Raleigh, NC – Richmond – New York City from one Carolinian trip daily to multiple frequencies throughout the day • Expand the number of Piedmont daily round trips between Charlotte – Raleigh	$			Carolinian and Piedmont
New service between Asheville, NC – Salisbury, NC (connection to Southeast Corridor service and Charlotte - Raleigh services)	$$$			Western NC
New service between Wilmington, NC – Raleigh (connection to Southeast Corridor service and Charlotte - Raleigh services)	$			Southeast NC
	$$			New Orleans Hub
Initiate 2 RTs New Orleans - Mobile	$$$			Gulf Coast
Initiate 2 RTs New Orleans - Baton Rouge	$$			Baton Rouge

Table 6. Southeastern Corridors Details (Continued)

Route Name and Major Locations	Endpoint Mileage	Endpoint Trip Time	Key Trip Time	Potential Host RRs	Pre-COVID-19 Operation
					Existing Service / No Service
Atlanta Hub					
Atlanta - Charlotte	257	5:00	**5:00** Atlanta - Charlotte	NS	
Atlanta - Nashville	280	6:34	**3:06** Atlanta - Chattanooga	CSX, NS	
Atlanta - Savannah	291	5:40	**2:05** Atlanta - Macon	CSX, NS	
Atlanta - Montgomery	180	3:20	**3:20** Atlanta - Montgomery	CSX, NS	
Atlanta - Birmingham	164	4:10	**4:10** Atlanta - Birmingham	CSX, NS	
Florida Network					
Jacksonville - Orlando - Tampa	240	4:28	**1:32** Tampa - Orlando	CFCR, CSX	
Orlando - Miami	267	4:36	**4:36** Orlando - Miami	CSX, CFCR, SFRTA	
Tampa - Miami	258	4:34	**4:34** Tampa - Miami	CSX, SFRTA	

Table 6. Southeastern Corridors Details (Continued)

Service Enhancements New service Route expansion/improvement	Public Operating Funding per New Passenger	New Passengers (000s)	Infrastructure Cost Per New Passenger for Full Buildout	Route Name
	$$$			Atlanta Hub
Initiate 3 RTs Atlanta - Charlotte (augmented with 1 RT New York - New Orleans)	$$			Atlanta - Charlotte
Initiate 2 RTs Atlanta - Nashville	$$$			Atlanta - Nashville
Initiate 3 RTs Atlanta - Savannah	$$$			Atlanta - Savannah
Initiate 3 RTs Atlanta - Montgomery	$$$			Atlanta - Montgomery
Initiate 1 RT Atlanta - Birmingham	$$$			Atlanta - Birmingham
	$			Florida Network
Initiate 2 RTs Jacksonville - Orlando - Tampa (augmented with 2 RTs New York - Miami)	$			Jacksonville - Orlando - Tampa
Initiate 2 RTs Orlando - Miami (augmented with 2 RTs New York - Miami)	$			Orlando - Miami
Initiate 3 RTs Tampa - Miami (augmented with 1 RT New York - Miami)	$			Tampa - Miami

07

Implementation

AMTRAK'S UNIQUE POSITION TO ORGANIZE AND FACILITATE EXPANSION

Countries around the world organize their intercity passenger rail service around a national operator. This is no accident, since a national passenger rail carrier provides significant capabilities and efficiencies. As the national passenger rail operator in the United States, Amtrak is in the unique position to provide leadership, efficiency, and organization to develop the solution to transportation challenges in this country. However, success is only possible by incorporating our state and local partners.

Fundamentally, the national rail carrier builds capabilities, knowledge, and economies of scale and then applies them repetitively to establish new services. This speeds implementation by leveraging Amtrak's experience in establishing and maintaining corridors. It also reduces costs through means such as sharing facilities and crews, and volume purchasing. Intercity passenger rail service is a complex mix of operating practices, technology, regulation, crew management, customer service, risk management, legal, and scores of other tasks dispersed over a wide geography. It's particularly daunting to start this from scratch—unless you have a partner who has done it many times over fifty years.

Amtrak brings subject matter experts with regulatory and technical knowledge of every discipline involved in providing intercity passenger rail service. Amtrak offers a full menu of skills and resources to realize this vision: States with the capability and desire to lead implementation can do so, while Amtrak can handle some or all aspects of implementation for states that desire it. This extends beyond intellectual capital to physical capital. As the national passenger rail carrier, Amtrak has staff, stations, terminals, and servicing facilities throughout the country. These are a logical and efficient base of operations for new and expanded corridor operations. The initial and ongoing costs of this vision would be significantly higher and implementation timeframes significantly longer if Amtrak's existing infrastructure were not used, but instead had to be duplicated.

Amtrak also has unique statutory capabilities, including the right of access to the host railroad network, operations on hosts at their incremental cost, right of preference over freight transportation, and if necessary even condemnation rights on host railroads. Plus, we have a strong reputation among hosts for safe, trustworthy operation and for living up to our indemnification obligations.

Amtrak continues to become an ever more efficient rail operator. As one testament to that, Amtrak has recently won competitive bids to provide operating services to commuter railroads Metrolink and MARC, and we provide contract maintenance services to several other commuter railroads. We also bring multimodal connections through our Thruway bus network, which uses integrated bus-rail ticketing to allow customers to extend their journey beyond Amtrak's rail network with a single ticket.

With Amtrak as operator, each corridor connects to our national network, putting our reservation and ticketing systems to work to allow residents of each region access to nearly the entire nation.

Amtrak is prepared to support implementation and operation of the larger network envisioned here. We are currently undertaking an internal review of the skills and resources that would be necessary to assist state partners in implementing this vision. If funding is provided for implementation, Amtrak is prepared to increase the scale of our operation as necessary to ensure success.

THE NEED FOR STATE AND HOST RAILROAD SUPPORT

This vision proposes improving, expanding, and initiating approximately sixty intercity passenger rail corridors across the continental U.S. Implementing corridors will require a team effort among Amtrak, the federal government, state and local governments, and host railroads.

Throughout 2019 and 2020, and continuing into 2021, Amtrak is conducting outreach and site visits with numerous stakeholders representing more than 25 states so far to discuss Amtrak's vision for corridor development including state DOTs, governors' offices, Joint Powers Authorities, and state legislators, as well as mayors, city council members, chambers of commerce, and the general public. Subject to Congress putting the necessary funding and policy elements in place, Amtrak stands ready to engage with state and local partners and host railroads to begin to implement this vision. We assume initiating implementation of all the corridors over a fifteen year period but do not propose which would be built in what sequence.

While funding for new and upgraded cars, locomotives, stations, and infrastructure is an important piece of the puzzle, ensuring cooperation with host railroads to improve Amtrak access and assure on-time train performance is also critical to achieving this vision.

Outside the NEC, Amtrak does not own or control the vast majority of the tracks it uses. Instead, we operate on tracks owned and controlled by host railroads. Today, as discussed below, host railroad performance in moving Amtrak trains is varied and often unreliable. Amtrak's trains outside the NEC are often late (freight trains delayed Amtrak's passenger trains by one million minutes in 2019) and there is no effective remedy for host railroads violating Amtrak's statutory right to preference over freight trains. There also is not a fair, timely, and transparent process to determine infrastructure investments that may be required to add capacity to expand Amtrak service.

Amtrak's reauthorization proposal includes recommended changes to the law to address these issues to improve and grow service. Amtrak's reauthorization proposal would also provide significant funding that could potentially be used for investments in host railroad infrastructure that are demonstrated to be necessary for expanded intercity passenger rail that would benefit all rail line users.

HELPING PASSENGER RAIL SUCCEED

The corridor growth described in this vision can only happen if Congress provides Amtrak with the critical tools and funding required to build and operate these new and improved corridors. As we face the need for major investments in fleet, facilities, and infrastructure to support the next fifty years of service, Amtrak's federal legislative proposal ensures taxpayers are maximizing their investment in intercity rail transportation to support mobility, access, and opportunity for more people and more localities across the country. Key elements of Amtrak's reauthorization proposal necessary to implement this vision are detailed below.

Authorize Federal Funding

Robust appropriation levels for FY 2022–FY 2026 are needed to allow Amtrak to make the investments needed to modernize and expand its network. Ideally, this would be provided to Amtrak via an Intercity Passenger Rail Trust Fund, which would provide multi-year, dedicated and predictable funding similar to how virtually all other surface transportation modes (highways, most public transit, and DOT safety programs) receive their federal funding. This proposed trust fund would support both the NEC and the National Network, including this corridor development vision. In addition to the NEC and National Network grants to Amtrak, corridor growth can be further advanced by Amtrak and our state and other partners pursuing a combination of other federal grant and loan programs. Amtrak supports a combination of funding mechanisms, including direct funding to Amtrak for corridor development and operation, and discretionary grants for corridor development in partnership with Amtrak.

Corridor Development Program

Amtrak is seeking authorization, as part of its National Network grant, of a new program that will help expand corridor service to communities on existing and new corridors as described in this vision. The program would allow Amtrak to cover up to 100% of the initial capital investments and much of the operating costs necessary to plan, develop, construct, and operate reliable, multi-frequency, and trip-time competitive new or additional intercity service in high potential corridors. Amtrak, in conjunction with the FRA and state partners, would establish and implement a collaborative and transparent process for determining investment opportunities. After the five-year program is implemented, states would then continue the service under the federally-mandated Amtrak-state cost sharing structure developed pursuant to PRIIA Section 209, as Amtrak and the states may revise it.

Preference Enforcement

Federal law states that, except in emergencies, Amtrak must receive preference over freight transportation when operating over host railroad tracks. Amtrak is seeking to extend the right of enforcement of this law to Amtrak by allowing the company to bring an action in the U.S. District Court to enforce these existing rights.

Process Improvements for Gaining Access to Host Railroads for New Service and Adding Additional Trains and Routes

As part of creating Amtrak and relieving freight railroads of their common carrier obligations for passenger transportation, the federal government granted Amtrak statutory access to all railroad infrastructure. Despite this, many host railroads seek to limit Amtrak's use of their tracks and oppose Amtrak expansion. We propose to update and clarify federal law regarding the process for providing Amtrak access to host railroads, including determining whether, and if so, what, capital investments are necessary to support new corridors or additional trains.

08

Conclusion

To provide more frequent, high-quality intercity passenger rail service on existing and new corridors, Amtrak and our state and local partners will need robust federal funding and important policy changes that only Congress can provide. Success in this endeavor requires a team effort at the federal, state and local level, to power our economy, preserve the environment and bring our country closer together. America has an important opportunity to invest in Amtrak, not just for today, but for generations to come.

Visit AmtrakConnectsUs.com to find out the latest news on Amtrak's Corridor Vision to improve, modernize, and expand service in your community—and across the country.

Appendix

Amtrak Route Identification Methodology

Preliminary City Pair Selection

Initially, Amtrak began researching potential city pairs through a literature search of intercity travel studies, including air corridors where intercity passenger rail service should be competitive, and city pairs separated by 100-200 miles without substantial rail and bus services.

Amtrak superimposed its current national network onto a map of U.S. population megaregions, originally identified in the America 2050 study. The resulting map in Figure 20 visually demonstrates how Amtrak underserves many of these markets. While Amtrak has some type of service to or near the largest twenty regions, many of them are served with only one long distance route, typically with one departure in each direction per day, and sometimes only three departures per week in each direction. This phase of the analysis suggested there are many potential new intercity passenger rail corridors.

Amtrak next brought in demographic data to identify additional city pair markets. For this initial evaluation, Amtrak used a simple "gravity model" that relates the endpoint populations to the distance between them. The underlying hypothesis is that the volume of travel between population centers diminishes rapidly as the distance between them increases. These Amtrak analyses ranked hundreds of city pairs and subsequent iterations matched travel data between them.

Corridor Identification

Amtrak then assessed potential intercity passenger rail corridors identified by the America 2050 study which are predicted to have the greatest ridership demand based on population size, economic activity, transit connections, existing travel markets and urban density. In the America 2050 study, the Regional Planning Association scored over 7,800 city pairs within 600 miles of each other for passenger rail potential.

Each America 2050 city pair score is based on a compilation of demographic characteristics rankings among all the city pairs; the higher the score, the stronger the intercity passenger rail potential. To narrow the city pair candidate corridors, Amtrak consolidated overlapping city pairs, eliminating many redundancies, and chose the top twenty percent scores for further analysis.

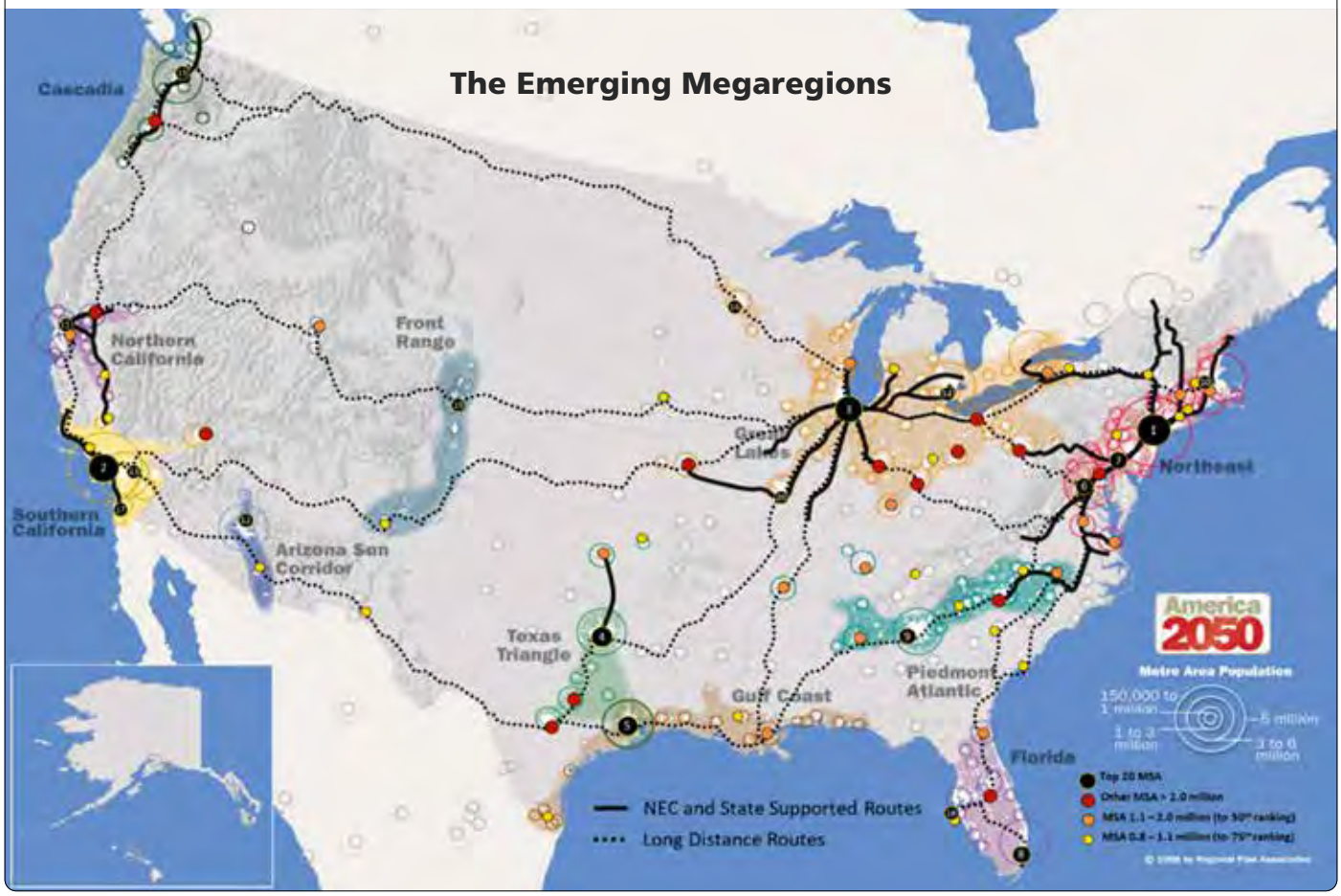
Corridor Development

Amtrak next combined the top-ranking city pairs from the gravity model analysis and the America 2050 synthesis to create a list of about 50 high-potential new passenger rail corridors to advance for further analysis. This list was expanded to include about 20 additional state initiatives for inter-city corridor development and expansion currently in various levels of implementation.

Amtrak staff utilized the FRA CONNECT model, which forecasts demand and costs at a very high level, for initial screening of candidate corridors, benchmarking, and to provide initial estimates for new corridors not served by Amtrak.

Rankings were derived by taking the difference between operating costs and revenues and dividing the result by ridership to obtain a contribution/loss per passenger. The result of this calculation is public operating funding required per passenger. Corridors showing a public operating funding cost closest to zero (breakeven) were ranked at the top of the list. Corridors with a public funding need of less than $50 per rider were also advanced for more analysis. With this preliminary financial test, about sixty corridors advanced to this nationwide corridor vision. These included entirely new corridors, as well as extensions and increased train frequencies on existing corridors.

Figure 20. Current Amtrak rail network underserves many megaregions and top population areas.



Financial Analysis and Projections

The analysis then shifted to calculating high-level financial performance for each corridor. The financial performance measure comes from high-level pairing of variable operating cost estimates with ridership and revenue forecasts. In developing estimates of operating costs, candidate rail corridor mileage and frequency were qualitatively assessed based on population and distance. These measures produced train-miles which, when multiplied by Amtrak's system average train-mile cost, produced a high-level operating cost estimate.

Ridership and revenue forecasts were then prepared using models developed and applied by Amtrak and its consultant, Steer, who routinely forecasts ridership and ticket revenue on Amtrak's existing train services. For each corridor analysis, the model was applied to all existing and new markets impacted by the envisioned service changes. Socio-economic data and forecasts of population, employment, and income, provided by Woods & Poole, were assembled within the catchment area for each station, accounting for overlap among adjacent stations. Other key inputs include:

- Conceptual schedules (for each train and connection), which provide: Distance between stations; and Departure and arrival times, that define Travel times, Time of day, and Spacing between trains.
- Frequency of service.
- Fares (average yields).

Forecasted demand-model output included ridership, passenger mileage, and ticket revenue. The model utilizes existing and historical ridership data, where available, to validate the baseline conditions.

Corridor capital costs were estimated by assessing infrastructure conditions and capacity through already completed studies (when available) or assembling corridor data from various sources and quantitatively assessing probable costs through an operations impact model provided by consultant Oliver Wyman coupled with Amtrak's infrastructure enhancement assessment.

Equipment and facility requirements for individual corridors were developed, combining resources on adjoining corridors when practical. Potential purchase of corridor infrastructure and assets was considered if available and appropriate.

Active state-sponsored passenger rail projects where Amtrak is an active participant were merged into this list. About sixty corridors came from the merged state-initiative list and Amtrak analysis.

Collaboration and Selection

Amtrak then shared this analysis with its state funding partners and incorporated their comments, including aligning our analysis with state rail plans as appropriate. The result are the corridors discussed in this document.

MORE TRAINS. MORE CITIES.

Better Service.

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National Railroad Passenger Corporation
1 Massachusetts Avenue NW
Washington, DC 20001
Amtrak.com

EXHIBIT 2

BEFORE THE
SURFACE TRANSPORTATION BOARD
DOCKET NO. FD 36496

APPLICATION OF THE NATIONAL RAILROAD PASSENGER CORPORATION UNDER 49 U.S.C. § 24308(e) – CSX TRANSPORTATION, INC. AND NORFOLK SOUTHERN CORPORATION

NATIONAL RAILROAD PASSENGER CORPORATION'S REPLY EVIDENCE

VERIFIED STATEMENT OF
AMTRAK ASSISTANT VICE PRESIDENT HOST RAILROADS
JIM BLAIR

1. My name is Jim Blair. I am the Assistant Vice President Host Railroads at the National Railroad Passenger Corporation ("Amtrak"). In this role, I oversee Amtrak's relationships with its host railroads on all the lines on which Amtrak runs throughout the country. I joined Amtrak in March 2008 as a Principal Host Railroads. I have been directly involved with Amtrak's efforts to restore the *Gulf Coast* service since approximately 2018 and have knowledge of Amtrak's efforts prior to that time.

2. For nine years prior to joining Amtrak, I served in a variety of capacities for transportation consulting firms where, among other things, I produced transportation policy analysis for federal, state and city governments; coordinated intermodal highway, rail and air cargo analyses; provided strategic consulting, network, and merger analysis for Class 1 railroads; and assisted in the development of a strategic route network plan for a Class 1 railroad. Prior to that, from 1987-1998, I was employed by Consolidated Rail Corporation (Conrail). For a portion of that time, I was Senior Director-Strategic Planning, where, among other things, I analyzed and helped lead efforts to acquire control of $3 billion in railroad assets. I also served as Director-Planning and Logistics, where among other things I developed network analyses and recommendations for five-year strategic business plans.

I. AMTRAK PREVIOUSLY SERVED THE GULF COAST REGION, INCLUDING BETWEEN NEW ORLEANS AND MOBILE.

3. The Gulf Coast Corridor between New Orleans, Louisiana, and Mobile, Alabama is one of the intercity passenger rail corridors Amtrak has identified for development and expansion to better serve the American people, for the reasons explained more fully in the Verified Statement of Dennis Newman.

4. The Gulf Coast corridor includes tracks owned by the host railroads CSX Transportation, Inc. ("CSX") and Norfolk Southern Railway Company ("NS"). It is Amtrak's

statutory right to operate over the rail lines of host railroads, but in recent years some host railroads have resisted Amtrak's requests to operate additional trains by using delay tactics and imposing unreasonable and unilateral demands for excessive capital investments. That has been the case with Amtrak's negotiations with CSX and NS regarding the Gulf Coast service.

5. Amtrak previously served the Gulf Coast region with three different services, two of which ran between the currently proposed New Orleans and Mobile city pair. Amtrak launched service along the Gulf Coast beginning in 1984 with the daily *Gulf Coast Limited* between Mobile and New Orleans, a service sponsored by the Southern Rapid Rail Transit Commission (now the Southern Rail Commission, comprised of representatives from Alabama, Louisiana, and Mississippi) ("SRC")). Although the train was well patronized, state financial support was insufficient to sustain the operation and the service was terminated in January 1985.

6. In March 1993, Amtrak launched the first coast-to-coast intercity passenger train by extending the long distance, tri-weekly *Sunset Limited* to Miami, Florida and points in between. This was an extension of the long-distance route originating in Los Angeles, CA, travelling for a total of 2,764 miles. On-time performance in the Gulf Coast region at the end of the route declined significantly over the years.

7. In 1996, at the request of the SRC, Amtrak restored the *Gulf Coast Limited* service between New Orleans and Mobile, which ran in addition to the *Sunset Limited* until the *Gulf Coast Limited* was discontinued in 1997. While the restored *Gulf Coast Limited* was again successful in terms of ridership, it was ended due to the lack of consistent multi-state funding.

8. When Amtrak was running on the New Orleans-to-Mobile line in 1996 and 1997, the line had considerably more freight trains than it does today. According to CSX's and NS's 1997 application to acquire Conrail, CSX was operating 20.6 trains a day over the line in 1996,

which was projected to increase to increase to 22.7 (without any infrastructure investments) following the acquisition. *See* 1997 Application (attached as App. A). At that same time, Amtrak operated 2.9 trains per day from New Orleans to Mobile: the tri-weekly *Sunset Limited*, which was then scheduled to operate from Mobile to New Orleans, arriving in New Orleans at 12:30 pm,[1] and the daily round trip *Gulf Coast Limited*, which had faster schedule (3:10/3:15) than the current schedule Amtrak has proposed for the restored *Gulf Coast* service (3:23/3:25).[2]

9. Also during the time Amtrak previously operated on the Gulf Coast corridor, Amtrak worked with CSX to identify and fund certain capital improvements that the parties jointly agreed would improve the service. For example, Amtrak paid for the installation of bi-directional signals and an upgrade to 40 mph on the southbound main line in Gentilly Yard, infrastructure that continues to benefit CSX's freight operations today.

10. The *Sunset Limited* service was suspended in 2005, as Hurricane Katrina devastated New Orleans and Mississippi, and the communities in and east of New Orleans have remained unserved by intercity passenger rail to this day.

II. AMTRAK'S ATTEMPTS TO RESTORE PASSENGER SERVICE ALONG THE GULF COAST HAVE BEEN MET WITH NOTHING BUT DELAY, REFUSAL, AND UNREALISTIC DEMANDS.

11. Amtrak has negotiated in good faith for more than five years with CSX and NS but has been unable to reach an agreement with respect to restoring the Gulf Coast service. CSX and NSR have consistently failed to agree to reinstate service to the Gulf Coast despite Amtrak's repeated requests, set various and changing preconditions they demand Amtrak must meet before service can begin, demanded billions or hundreds of millions of dollars in capital improvements

[1] *See* http://www.timetables.org/full.php?group=19961110n&item=0041.

[2] *See* http://www.timetables.org/full.php?group=19961110n&item=0031.

before service could begin, and refused to provide basic information or transparency in a joint modeling study recently undertaken by the parties. The details of these negotiations and obstacles are detailed below.

12. Amtrak reached out to CSX in 2006 to begin conversations aimed toward restoring intercity passenger train service east of New Orleans, but no progress was made toward that goal. *See* Mar. 2, 2006 Letter from Paul Vilter, Amtrak AVP Host Railroads to John M. Gibson, Jr., CSX Vice President Passenger and Operations Planning (attached as App. B).

13. In 2015, the SRC commissioned Amtrak to evaluate passenger rail service options along the Gulf Coast. Amtrak studied a range of service options and analyzed potential ridership levels, projected revenues, and associated costs. Amtrak began working with local communities and public officials to help progress the restoration of service in the Gulf Coast corridor. This effort culminated in the February 2016 operation of an Amtrak inspection train, which drew thousands of supporters, and gave the Gulf Coast region renewed hope for restored Amtrak service.

14. With growing public support, but a lack of meaningful progress, Congress found it necessary to get involved by demanding a plan to restore Gulf Coast Service and directing the creation of the Gulf Coast Working Group, to be chaired by the Federal Railroad Administration ("FRA"), and to include Amtrak, the States along the proposed route, the regional transportation planning organizations and metropolitan planning organizations, municipalities, and communities along the proposed route, the SRC, and host railroads CSX and NS.[3]

[3] Section 11304, Fixing America's Surface Transportation Act ("FAST Act," Pub. L. No. 114-94, 129 Stat. 1312, 1655 (2015)).

15. The Gulf Coast Working Group's evaluation resulted in a report to Congress in July 2017 recommending, among other things, the restoration of twice-daily service between New Orleans and Mobile. *See* "Gulf Coast Working Group Report" (attached as App. C). The Gulf Coast Working Group Report found that *Gulf Coast* service could commence with an estimated $5.4 million in capital investments for station-related improvements and recommended approximately $95 million in additional capital for other improvements to be phased in over time after the *Gulf Coast* service began operations. This conclusion was based in part on a feasibility study conducted by Amtrak and the FRA, in which CSX refused to participate.

16. All the participants in the Gulf Coast Working Group assented to the Report except for CSX and NS. The SRC noted that throughout the Gulf Coast Working Group's process, CSX "demonstrate[d] what can only be understood as an unwillingness to negotiate in good faith and an opposition to bringing back passenger rail service to communities along the Gulf Coast." *See* May, 25, 2017 Letter from SRC to FRA, Gulf Coast Working Group Report, Appendix A, (attached as App. D). Indeed, when CSX was asked "if they would be willing to continue to work with the stakeholders of the GCWG to collaborate towards a mutually agreed on determination of cost," CSX's representative "replied no, CSX would not continue to work with the group." *Id.*

17. Instead, CSX performed its own Rail Traffic Controller ("RTC") study. In a letter dissenting from the Gulf Coast Working Group report, CSX asserted that the "necessary improvements for any Gulf Coast passenger restoration" would "cost, at a minimum, at least $2 billion." *See* Aug. 15, 2016 Letter from CSX to FRA, Gulf Coast Working Group Report, Appendix A (attached as App. E). CSX also insisted that "all infrastructure improvements, based on 20-year growth projections, must be completed before they will start the first day of service."

Id. These demands were, in effect, a "veto [of] a passenger rail service supported by the people and leadership of the coastal south." *See* App. D.

18. Despite the refusal of CSX to engage in any discussion of reasonably necessary infrastructure improvements and timing, SRC and Amtrak continued to attempt to engage with CSX in good faith.

19. In 2017, SRC agreed to pursue the restoration of passenger rail service between New Orleans and Orlando in multiple phases, in anticipation of potential funding opportunities. The first phase of service would provide two daily round-trip trains between New Orleans, Louisiana, and Mobile, Alabama, as part of an Amtrak state-supported corridor route.

20. In April 2018, Amtrak's then CEO wrote to CSX's CEO requesting CSX's "assistance and engagement in finalizing plans to restore intercity passenger rail service to the Gulf Coast," offering to promptly designate a negotiating team, and asking for CSX's timely commitment. *See* Apr. 10, 2018 Letter from Richard H. Anderson to James M. Foote (attached as App. F).

21. In January 2019, Amtrak agreed to participate in a Rail Traffic Controller ("RTC") modeling study with CSX. Later, NS insisted that it be part of any RTC modeling study. In January 2020, the parties executed an agreement (the "RTC Study Agreement") to conduct a joint evaluation of the proposed intercity passenger service between New Orleans, Louisiana and Mobile, Alabama, using RTC software (the "2020 RTC Study"). The RTC Study Agreement had a term of one year. *See* RTC Study Agreement (attached as App. G).

22. The 2020 RTC Study was entirely funded through a grant from FRA. The grant Statement of Work required that the deliverable to FRA include "information that meets FRA's minimum data requirements" for an RTC study, including all traffic inputs, all infrastructure

inputs using track charts or other FRA-approved form, and various forms of simulation outputs. *See* Sept. 25, 2020 FRA Grant Agreement No. 69A36520402310AMTDC, Attachment 2 Section 2.0 (attached as App. H).

23. During the course of the 2020 RTC Study, Amtrak repeatedly requested that CSX and NS share with it, as a participant in the study, key information that would make it possible both to validate the reliability and reasonableness of the modelling and to secure future federal funding for improvements on the right of way. Amtrak detailed its concerns in an August 3, 2020 letter from me to executives at CSX and NS. *See* Aug. 3,2020 Letter from Jim Blair to John V. Edwards and Andy Daly (attached as App. I). Among other things, Amtrak requested such basic information as the number and type of trains operating over the modeled territory; the average operating characteristics of trains by train type; the basic track configuration drawn at a linear scale; the size and type of all turnouts; the grade crossing locations; and train performance calculator outputs for passenger trains.

24. Amtrak also objected to CSX's and NS's insistence that all Future Iterations in the 2020 RTC Study – even those that propose to introduce passenger service in the near term – must be modeled against a "No Build Case" (reflecting forecast conditions in the year 2039). Amtrak pointed out that it should be permitted to model service scenarios for near-term service introduction, and that by insisting that the No-Build Case be used for modeling, the amount of infrastructure required to mitigate the addition of even a single round-trip passenger train would be grossly exaggerated. *Id.*

25. FRA also expressed its dissatisfaction with the lack of transparency in the 2020 RTC Study, stating: "[W]ithout a thorough understanding of all the operationally relevant inputs, the

simulation becomes a completely opaque black box, and the outputs become meaningless." *See* Apr. 1, 2020 Email from Peter Schwarz of FRA to Amtrak (attached as App. J).

26. With the exception of certain sanitized and heavily redacted data summaries, CSX and NS refused all of Amtrak's requests for information and input into the scenarios to be modeled.

27. When the term of the RTC Study Agreement expired in January 2020, with the study not completed and the data transparency issues unresolved, Amtrak elected not to renew that agreement. *See* Jan. 27, 2021 Letters from Jim Blair to Andy Daly and John Edwards (attached as App. K).

III. AMTRAK'S 2021 GULF COAST PROPOSAL WAS REJECTED BY CSX AND NS.

28. In the same January 27, 2021 letters, Amtrak requested that CSX and NS agree to Amtrak's restoration of the *Gulf Coast* service between New Orleans and Mobile beginning on or about January 1, 2022. Amtrak also proposed that compensation be in accordance with Amtrak's Operating Agreements with CSX and NS, respectively. Section 5.1 in Amtrak's Operating Agreements with both CSX and NS already covers the terms of compensation for any "additional or modified" service requested by Amtrak.

29. In the January 27 letters, Amtrak included its proposed schedule for twice-daily service. Amtrak also advised that the only infrastructure investments required prior to restoration of service were the station-related upgrades previously recommended by the Gulf Coast Working Group, while acknowledging that some targeted infrastructure could benefit the restored service after start-up, and committing to work with CSX and NS to secure funding for that purpose. *Id.*

30. Amtrak's January 27th letters requested that CSX and NS provide their written consent to the proposed service no later than March 15, 2021. *Id*.

31. Finally, Amtrak stated in its January 27th letters that Amtrak stood ready to discuss any additional planning or preparation that CSX and NS believed would be necessary to achieve the start-up of service and to ensure that service performance would be consistent with the metrics and standards promulgated by the FRA in November 2021 (the "FRA Final Rule"). *Id.*

32. Neither CSX nor NS agreed to Amtrak's proposal by March 15, 2021. Nor did they take advantage of Amtrak's willingness to discuss targeted infrastructure after start-up, means of financing that infrastructure, or ways to ensure acceptable service performance following start-up. Amtrak therefore had no choice but to enforce its rights in this proceeding.

IV. AMTRAK'S PROPOSED SCHEDULE IS REASONABLY ACHIEVABLE BY AN EFFICIENTLY OPERATED HOST RAILROAD WITHOUT BUILDING $440 MILLION IN NEW INFRASTRUCTURE

33. While refusing all other requests for data used in the 2020 RTC Study, CSX and NS did eventually allow for the viewing of specially created "heat maps" by which Amtrak could attempt to discern aggregate freight movements. Amtrak used those heat maps as the basis for designing the schedule it ultimately proposed to CSX and NS for the *Gulf Coast* service.

34. All Amtrak schedules include several components: pure run time (the time it takes a train to run unimpeded from origin to each station; recovery time (additional time built into the schedule to allow for variability and unavoidable delays); dwell time (time spent boarding and unboarding passengers); and often miscellaneous extra time.

35. The schedule proposed by Amtrak for the *Gulf Coast* service includes more recovery time than Amtrak typically includes for comparable services. Amtrak built in extra recovery time primarily to respond to concerns CSX and NS repeatedly raised about delays caused by movable bridges. Amtrak did so even though the Host Railroad Group calculated in 2017 that bridge opening delays to the *Sunset Limited* between New Orleans and Mobile in its last year of operation were only 1.06 minutes per trip. *See* NOL-MOB Sunset Limited Delay

Analysis - January 1 2003 - June 1 2005 (Nov. 11, 2019) (attached as App. L). Upon receiving Amtrak's proposed twice-daily schedule, CSX and NS never suggested an alternate schedule to Amtrak. And they never provided Amtrak with the information Amtrak needed in order to design a schedule that best minimized the impact to freight operations.

36. It should be possible for CSX and NS to operate the *Gulf Coast* service with a high degree of reliability based on Amtrak's proposed schedule, without the need to build $440 million of infrastructure to improve their freight network.

37. The FRA's Final Rule, published in November 2020, establishes metrics and minimum standards for measuring the performance and service quality of Amtrak's intercity passenger train operations. One of those metrics is "customer on-time performance" of a passenger train, defined as the percentage of all customers on an intercity train who arrive at their detraining point no later than 15 minutes after their published scheduled arrival time, and the customer on-time performance minimum standard is 80% for any two consecutive calendar quarters. *See FRA Final Rule,* Fed. Reg. Vol. 85, No. 221 (Nov. 16, 2020), Section 273.5(a).

38. Amtrak's experience of operating similar services throughout the country shows that with the schedule Amtrak has proposed for the *Gulf Coast* service, an efficient host railroad should be able to meet the customer on-time performance standard. By way of example, the following corridor services have certain similar characteristics as the Gulf Coast corridor, and regularly operate at levels of customer on-time performance above 80%.

Route Name	Route Miles	# Daily Amtrak Trains	# Quarters >=80% (of Previous 16 Quarters)
Springfield Shuttles	62	14	15
Ethan Allen Express	247	2	13
Hiawatha	85	14	16
Carl Sandburg / Illinois Zephyr	259	4	13

Note: Amtrak began measuring Customer OTP in October 2017 (=16 quarters).

39. The RTC report submitted with CSX's and NS's opening evidence states that it was necessary to simulate the *Gulf Coast* service achieving 95% or better customer on-time performance in order to assure an actual on-time performance of at least 80%, given variabilities in passenger service, which in turn could only be achieved by Amtrak paying for $440 million in improvements to their network. *See* CSX and NS Opening Evidence, RTC Report p. 42. A full analysis of the RTC report is contained in the Verified Statement of Thomas D. Crowley and Daniel L. Fapp of L.E. Peabody & Associates, Inc. It is noteworthy, however, that neither CSX, NS, nor their experts took into account the facts that (1) Amtrak's proposed schedule already includes significant recovery time to account for such variabilities;[4] (2) the FRA's customer on-time performance metric already builds in an additional 15-minute tolerance at each station; (3) the RTC model already includes randomized delay as part of the model; and (4) the 80% standard allows for a failure rate of as high as 20%.

40. CSX's and NS's brief and accompanying evidence also asserts that the *Gulf Coast* service was simulated with Amtrak trains never placed in a siding, because that would be inconsistent with Amtrak's purported public position about its "statutory priority." CSX and NS Opening Brief at 35; RTC Report at 39; Rossi/Sinkkanen Verified Statement at 7. This is not true.

41. Amtrak's statutory right to preference over freight trains does not mean that Amtrak never uses a siding – which is, after all, just another piece of track available for use. In many cases, utilizing a siding permits an Amtrak train to avoid freight interference, or to reduce delay

[4] The proposed Gulf Coast schedules reflect a ratio of 22% and 23% recovery time (calculated as the ratio of scheduled Recovery Time to scheduled Pure Running Time) that is more than twice desired levels. As a general practice, Amtrak believes the ratio of Recovery Time to Pure Running Time should be no more than 8% to 10%.

as a result of track blockages due to local switching. Utilizing sidings is essential for meeting and passing trains on corridors comprised mostly of single track. Indeed, Amtrak's proposed *Gulf Coast* service schedules specifically contemplated meeting the morning and afternoon passenger trains at Claiborne siding. In most cases, doing whatever will avoid (or minimize if unavoidable) delays to Amtrak trains caused by freight trains means putting the freight train in the siding, since (i) trains must reduce speed when entering/exiting sidings and (ii) sidings often have slower speeds than the main line track. However, if an Amtrak train is meeting a freight train that is too long to fit into the siding, having the Amtrak train take the siding could minimize Amtrak delays. This is so because the Amtrak train can operate faster through the siding and the freight train waiting on the main line track can proceed forward at the faster main line speed once the Amtrak train enters the siding so that the freight train will no longer be blocking the turnout at the end of the siding when the Amtrak train reaches the turnout.

42. Given the above, programming in a 95% plus rate of customer on-time performance into a *Gulf Coast* simulation – thus producing the highest possible infrastructure "requirement" – is unnecessary and illogical.

V. THE CHARACTERISTICS OF THE GULF COAST CORRIDOR DO NOT JUSTIFY CSX'S AND NS'S INFRASTRUCTURE DEMANDS.

43. In arguing that the Board should refuse Amtrak's request to run the *Gulf Coast* service, CSX and NS repeatedly claim that the Gulf Coast corridor is somehow "unique" as "compared to other lines over which Amtrak operates." CSX and NS Opening Brief at 6. But the characteristics that CSX and NS claim make the Gulf Coast Corridor "unique" are not uncommon in other environments in which Amtrak operates.

44. For example, CSX and NS claim the Gulf Coast Corridor is "unique" because it has seven movable bridges (plus six on adjoining lines). CSX and NS Opening Brief at 6. However,

the Northeast Corridor between Boston and Washington, which accommodates approximately 2,000 trains a day (including about 50 freight trains of NS, CSX and Conrail) has more than seven moveable bridges. Indeed, on one 60-mile section of the Northeast Corridor between New Haven and Westerly, Connecticut, there are five moveable bridges with an average daily frequency of 12 to 19 openings during peak periods. The segment carries 38 Amtrak, 24 commuter and 6 freight a day, including the Washington to Boston *Acela* service. Nor do CSX and NS take into account the possibility of improving the current situation with the bridges. For example, there is no evidence that CSX and NS have taken advantage of the advice given by the United States Coast Guard that if circumstances warrant, "specific requirements for drawbridge operations can be approved by the District Commander through the rulemaking process;" that the Coast Guard "has approved more than one thousand rules for specific requirements for the operation of highway and railroad drawbridges;" and that "[i]n situations where there are multiple bridges in close proximity to one another on the same waterway, the Coast Guard will ensure operating schedules are conducive to the safest and least restrictive flow of both navigational and land traffic." *See* Oct. 3, 2016 letter from U.S. Coast Guard to Hon. Roger F. Wicker dated October 3, 2016 (attached as App. M).

45. CSX and NS also claim the Gulf Coast Corridor is "unique" because it is "primarily single track." CSX and NS Opening Brief at 6. However, more than two-thirds of the Class I railroad main lines and vast majority of Amtrak's 21,000-mile national network is single track. See Multiple-Track Main Lines, Trains Magazine (January 10, 2018), *available at* https://www.trains.com/trn/railroads/maps/free-preview-multiple-track-main-lines. Thus, Amtrak regularly operates multi-frequency corridor services on predominantly single-track lines. For example, BNSF's main line from Bakersfield to Stockton, which has much higher freight

train volumes than the Gulf Coast Corridor, accommodates fourteen Amtrak trains every day (as opposed to the four trains in the proposed *Gulf Coast* service). Moreover, while the Gulf Coast corridor is primarily single track, approximately 20% of the route includes passing sidings or double track (CSX and NS RTC Report at 56), which is higher than on many single-track Class I main lines over which Amtrak operates. Specifically with respect to the NS segment in New Orleans, that line is entirely double track and has only 14 freight trains. *See* RTC Report at p. 14. That equates to just seven freight trains per track per day, or an average of less than one train every three hours.

46. CSX and NS also claim the Gulf Coast Corridor is "unique" because it has 160 grade crossings. CSX and NS Opening Brief at 23. This is not "unique." For example, the Florida East Coast Railway line between Miami and West Palm Beach, which accommodates 34 daily *Brightline* passenger trains and more freight trains than operate between New Orleans and Mobile, has 183 grade crossings in less than 70 miles. *See* https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/2872/EnvironmentalAssessment_AAF_Passenger_Rail_Project_from_WPB_to_Miami.pdf, p. 147.

47. CSX and NS also claim the Gulf Coast Corridor is "unique" because it has "unusually high freight demands." CSX and NS Opening Brief at 7. However, the volume and complexity of freight operations between New Orleans and Mobile and in the New Orleans and Mobile terminal areas pales in comparison to the volume and complexity on many other lines and at many other terminals where Amtrak operates. For example, in Chicago, Amtrak operates over fifty trains a day. BNSF's Chicago-Los Angeles Transcon Line, over which Amtrak's *Southwest Chief* operates, handles approximately 100 freight trains a day.

48. CSX and NS also claim the Gulf Coast Corridor is "unique" because it has "short or insufficient length sidings, improperly spaced to efficiently pass trains." Banks Verified Statement at I-4. It is incorrect to claim that passenger trains and freight trains can only meet at sidings long enough to accommodate a long freight train. A short passenger train can pass a freight train of any length at even the shortest siding. The inability of a train to pass a train going in the opposite direction—which occurs only when two overly long *freight* trains meet—is solely the result of CSX's current operating practice of operating trains that are too long to fit in many of the sidings on the line. The 124-mile segment between the double-track portions of the line in New Orleans and Mobile has nine sidings longer than 7,400 feet, six of which are longer than 8,000 feet. CSX and NS RTC Report at 56. While CSX and NS claim that three of these sidings have an "effective capacity" of less than 7,400 feet, presumably because they include grade crossings, all of them could be used for meets between Amtrak and freight trains.

49. CSX and NS claim that there is insufficient capacity on the line to accommodate the proposed service. However, in 1996-1997, the New Orleans – Mobile line had considerably more freight trains than it does today while accommodating (1) the tri-weekly *Sunset Limited* service, where it arrived at New Orleans at 12:30 p.m. (i.e., during daylight hours), and (2) a daily round trip on a faster schedule (3:10/3:15) than the 3:23/3:25 schedule that Amtrak has proposed. *See* http://www.timetables.org/full.php?group=19961110n&item=0041 and http://www.timetables.org/full.php?group=19961110n&item=0031.

50. In sum, the Gulf Coast corridor is not "unique" or uniquely unable to accommodate two regularly scheduled passenger trains without a $440 million infrastructure contribution from Amtrak.

VI. AMTRAK'S ATTEMPTS TO ENGAGE CSX IN PLANNING FOR AN INTERIM LAYOVER TRACK HAVE BEEN MET WITH DELAY AND DENIAL.

51. In my January 27, 2021 letter to CSX and NS, I requested that the railroads agree to allow Amtrak to use their respective facilities to restore the *Gulf Coast* service in accordance with the Amtrak's proposed schedule and with compensation in accordance with their respective Operating Agreements. That letter did not specify any particular facilities that Amtrak believed would be necessary to run the service.

52. In Amtrak's March 16, 2021 Application to the Board, we requested that the Board order CSX and NS to provide the facilities and services necessary for Amtrak to operate the *Gulf Coast* service as proposed in my January 27, 2021 letter. The application also stated that Amtrak would require access to CSX's and NS's rail lines in the interim in order to have enough time to, among other things, make the improvements recommended in the Gulf Coast Working Group Report. *See* March 16, 2021 Application to the Board at p. 6.

53. The Gulf Coast Working Group Report contained a number of FRA-identified improvements "for enhancing the operations of passenger trains on the corridor without unreasonably impairing freight operations." GCWG Report Sec. 4.5.2.3 at p. 23. It was recognized that "[d]eveloping this list into an implementation plan that finalizes how the proposed improvements will be advanced will require additional operations analysis and discussion among CSX, Amtrak, and the SRC." *Id.*

54. One of the FRA-identified improvements for "enhancing the operation of passenger trains on the corridor" was a "1,000 foot track on the west side of the existing Mobile station platform, connected to the main track with a fully signaled and interlocked No. 10 turnout," for the purpose of parking the Amtrak train in Mobile during the middle of the day. *Id.* at p. 27.

55. A layover track in Mobile was included in the total $5,376,000 in capital costs for FRA's improvements identified as the Minimum Needed For Passenger Service. *Id.* at 30.

56. Amtrak agreed then, and agrees now, that a layover track on the west side of the Mobile station platform would be an ideal location for a layover track, as it would move the passenger train off the main line in the quickest possible time. However, Amtrak does not own the property on which the layover track would be built. The City of Mobile is the owner and the City has to date not agreed to the construction of a layover track at the identified site. While continuing to pursue that option, Amtrak began to explore alternative locations for the layover track.

57. One of the more obvious alternatives was to layover the Amtrak train in CSX's Choctaw Yard. Two of Amtrak's prior Gulf Coast services laid over in Choctaw Yard on what was known as the "Amtrak track."

58. Without notice to Amtrak, CSX tore out the "Amtrak track" in Choctaw Yard some time in 2019, while discussions were ongoing for the resumption of *Gulf Coast* service.

59. I wrote to CSX requesting access during the third quarter of 2021 for the purpose of surveying for an interim layover track. *See* June 16, 2021 Letter from Jim Blair to Andy Daly (attached as App. N).

60. CSX initially agreed to Amtrak's access requests, including naming a CSX contact for the activity "Survey For Interim Layover Track." *See* Letter from Andy Daly to Jim Blair dated June 30, 2021. CSX followed up with another letter asking to Amtrak to provide its reasons for wanting to survey Choctaw Yard for a layover track, as well as "some conceptual layovers of the proposed project" in order to "ensure the safety of [CSX] employees and

Amtrak's survey team." *See* July 21, 2021 Letter from Andy Daly to Charles Szovati, Amtrak's Senior Manager Design Track (attached as App. P).

61. In its August 5, 2021 Decision denying CSX's and NS's motion to dismiss and establishing a procedural schedule, the Board denied Amtrak's motion for interim access as moot based in part on CSX's agreement to Amtrak's access requests. *See* Decision at 11.

62. On August 31, 2021, I wrote to CSX to explain the reason for Amtrak's interest in restoring its use of Choctaw Yard for layover purposes. As I explained, the Mobile station track project had not advanced sufficiently to allow the planned layover track to be used for the restart of passenger service in early 2022. I asked for CSX to commit to cooperate on a joint Amtrak-CSX engineering survey to identify a segment of track and/or roadbed within Choctaw Yard in Mobile that could be used for the temporary layover of the Amtrak train. *See* Aug. 31, 2021 Letter from Jim Blair to Andy Daly (attached as App. Q).

63. CSX refused Amtrak's request for an engineering survey of Choctaw Yard. *See* Sept. 15, 2021 Letter from Andy Daly to Jim Blair (attached as App. R).

64. On October 20, 2021, Amtrak filed with the Board a renewed request for interim access to perform all necessary preparation for the restoration of the *Gulf Coast* service, including for the purpose of surveying Choctaw Yard as a site for a temporary layover track. The Board granted this request in its Order of November 29, 2021.

65. On November 30, 2021, I requested that CSX supply a primary contact and dates that CSX personnel would be available for a joint site inspection and engineering survey to identify a segment of track or roadbed within Choctaw Yard that can be used as an interim layover location. I also stated that, if CSX determined that Choctaw Yard was not a suitable site for an interim layover track, that CSX could identify a suitable location or locations so that

Amtrak and CSX could undertake a joint site inspection and engineering survey. *See* Nov. 30, 2021 Letter from Jim Blair to Andy Daly (attached as App. S). CSX responded to my letter on December 1, suggesting Amtrak also explore an alternative site at the Mobile Station site. *See* Dec. 1, 2021 Letter from Andy Daly to Jim Blair (attached as App. T).

66. In order to operate any passenger service on the Gulf Coast corridor, Amtrak will have to make use of track and facilities of the host railroads, CSX and NS. A layover track is a necessary facility for operating the *Gulf Coast* service. Amtrak's intent is to use an interim piece of track for layover purposes – which should require no more than 1,000 feet of track – for the shortest amount of time until a permanent layover track can be constructed adjacent to the downtown Mobile station as originally envisioned, provided Amtrak can secure the City of Mobile's cooperation. Amtrak has proposed using the space it formerly used at Choctaw Yard, and CSX has proposed an alternative location. Amtrak is willing to work with CSX to explore these and any other suitable alternatives proximate to the Mobile station.

67. Amtrak expects that, as start-up proceeds and the service begins, it may be necessary to make other modifications to the original service plan for the *Gulf Coast* service. It is Amtrak's hope and intention to work cooperatively with CSX and NS, as it does on other routes and with other host railroads, to reach reasonable resolutions to these kinds of issues as they arise.

VERIFICATION

I, Jim Blair, declare under penalty of perjury that the foregoing information regarding Amtrak is true and correct. Further, I certify that I am qualified and authorized to file this statement on behalf of Amtrak.

Executed on this 2nd day of December, 2021.

Jim Blair

APPENDIX A

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC., NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY — CONTROL AND OPERATING LEASES/AGREEMENTS — CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

RAILROAD CONTROL APPLICATION

VOLUME 3A OF 8

CSX OPERATING PLAN, LABOR IMPACT EXHIBIT, DENSITY CHARTS AND SUPPORTING STATEMENTS (EXHIBITS 13 AND 14)

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June 1997

TABLE 13.8-2

CHANGES IN TRAINS PER DAY ON CSX AND CONRAIL ACQUIRED LINE SEGMENTS WITH PASSENGER SERVICE

SEGMENT FROM STATION		SEGMENT TO STATION		ROAD	MILES	PSGR	1995 ADJ BASE FREIGHT	POST-ACQUISITION FREIGHT	POST-ACQUISITION TOTAL	CHANGE IN # OF TRNS/DAY
S. RICHMOND	VA	WELDON	NC	CSXT	82	8	18.4	23	31	4.6
WELDON	NC	ROCKY MT	NC	CSXT	37	8	19.6	25.5	33.5	5.9
ROCKY MT	NC	CONTENTNEA	NC	CSXT	19	8	19.6	22.1	30.1	2.5
CONTENTNEA	NC	SELMA	NC	CSXT	22	8	18.2	21	29	2.8
SELMA	NC	FAYETTEVILLE	NC	CSXT	49	4	20.4	21.6	25.6	1.2
FAYETTEVILLE	NC	PEMBROKE	NC	CSXT	31	4	22.1	22.2	26.2	0.1
PEMBROKE	NC	DILLON	SC	CSXT	21	4	15.7	17.2	21.2	1.5
DILLON	SC	FLORENCE	SC	CSXT	31	4	15.6	19	23	3.4
FLORENCE	SC	LANE	SC	CSXT	49	4	12.7	16.6	20.6	3.9
LANE	SC	ST STEPHEN	SC	CSXT	8	4	16.2	19.9	23.9	3.7
ST STEPHEN	SC	ASHLEY JCT	SC	CSXT	39	4	12.7	16.5	20.5	3.8
ASHLEY JCT	SC	YEMASSEE	SC	CSXT	54	4	16.7	20.6	24.6	3.9
YEMASSEE	SC	SAVANNAH	GA	CSXT	55	4	12.2	16.1	20.1	3.9
SAVANNAH	GA	JESUP	GA	CSXT	52	6	17.3	22.8	28.8	5.5
HAMLET	NC	MCBEE	SC	CSXT	108	2	3.4	3.3	5.3	-0.1
MCBEE	SC	COLUMBIA	SC	CSXT	108	2	4.4	4.4	6.4	0
COLUMBIA	SC	FAIRFAX	SC	CSXT	76	2	3.9	3.7	5.7	-0.2
FAIRFAX	SC	SAVANNAH	GA	CSXT	62	2	12.4	11.6	13.6	-0.8
JESUP	GA	FOLKSTON	GA	CSXT	54	6	10.3	12.4	18.4	2.1
JACKSONVILLE	FL	BALDWIN	FL	CSXT	18	2.8	21.9	23.3	26.1	1.4
BALDWIN	FL	CHATTAHOOCHEE	FL	CSXT	189	0.8	11.7	11.1	11.9	-0.6
CHATTAHOOCHEE	FL	PENSACOLA	FL	CSXT	161	0.8	10.3	9.7	10.5	-0.6
PENSACOLA	FL	FLOMATON	AL	CSXT	43	0.8	9.9	11.3	12.1	1.4
FLOMATON	AL	MOBILE	AL	CSXT	59	0.8	25.1	25.8	26.6	0.7
MOBILE	AL	NEW ORLEANS	LA	CSXT	143	0.8	20.6	22.7	23.5	2.1
FOLKSTON	GA	CALLAHAN	FL	CSXT	22	6	43.9	44.6	50.6	0.7
BALDWIN	FL	STARKE	FL	CSXT	26	2	22.7	23.3	25.3	0.6
STARKE	FL	VITIS	FL	CSXT	126	2	19.3	19.3	21.3	0
PLANT CITY	FL	UCETA YARD	FL	CSXT	17	4	9.1	9.6	13.6	0.5
CALLAHAN	FL	JACKSONVILLE	FL	CSXT	16	6	23.5	23.2	29.2	-0.3
JACKSONVILLE	FL	PALATKA	FL	CSXT	54	4.8	8.3	8.3	13.1	0
PALATKA	FL	SANFORD	FL	CSXT	68	4.8	6.6	6.6	11.4	0
SANFORD	FL	ORLANDO	FL	CSXT	22	4.8	8	8	12.8	0
ORLANDO	FL	AUBURNDALE	FL	CSXT	51	4	7.7	9.1	13.1	1.4
AUBURNDALE	FL	LAKELAND	FL	CSXT	12	4	7.2	8.6	12.6	1.4
LAKELAND	FL	WINSTON	FL	CSXT	4	4	17.6	18.9	22.9	1.3
WINSTON	FL	PLANT CITY	FL	CSXT	5	4	9.8	11.1	15.1	1.3
AUBURNDALE	FL	SEBRING	FL	CSXT	47	4	11.3	11.3	15.3	0
SEBRING	FL	W. PALM BCH	FL	CSXT	103	6	15.6	15.6	21.6	0
W. PALM BCH	FL	MIAMI	FL	CSXT	70	30	6.7	6.7	36.7	0
RANKIN JCT	PA	WILLOW GROVE	PA	CSXT	11	2	1.7	1.7	3.7	0

TABLE 13.8-2

CHANGES IN TRAINS PER DAY ON CSX AND CONRAIL ACQUIRED LINE SEGMENTS WITH PASSENGER SERVICE

APPENDIX B

NATIONAL RAILROAD PASSENGER CORPORATION
30th Street Station, Philadelphia, PA 19104

March 2, 2006

Mr. John M. Gibson, Jr.
Vice President Passenger and Operations Planning
CSXT Transportation
500 Water Street, J305
Jacksonville, FL 32202

Dear John:

Amtrak would like to meet with CSXT to discuss the resumption of passenger train service east of New Orleans following repairs of Hurricane Katrina damage and restoration of service. Amtrak is continuing to assess the status of our station infrastructure along the route and it would be useful to understand CSX's current situation. We would like to schedule a meeting at your earliest convenience to discuss passenger service along the Gulf Coast with you.

I expect that participation from Amtrak will include myself and a representative from our Southern Division. Please contact me with potential dates and times that would be convenient for you so that we can consider them.

Sincerely,

Paul Vilter
AVP Host Railroads

APPENDIX C

Gulf Coast Working Group
Report to Congress

Prepared for: Committee on Commerce, Science and Transportation of the Senate and Committee on Transportation and Infrastructure of the House of Representatives

Submitted by: The Gulf Coast Working Group

Final Report

July 2017

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EXECUTIVE SUMMARY

The Federal Railroad Administration (FRA) and the Southern Rail Commission (SRC) held the first meeting of the Gulf Coast Working Group (GCWG). Congress directed the formation of the GCWG in December 2015 in the Fixing America's Surface Transportation (FAST) Act (P.L. 114-94, § 11304, 129 Stat. 1312, 1655 [Dec. 4, 2015]).

Section 11304 of the FAST Act requires the GCWG to evaluate the restoration of intercity passenger rail service between New Orleans, LA and Orlando, FL and to submit a report (Report) to Congress that includes a preferred option for restoring service; the reasons for selecting that option; a prioritized inventory of capital projects; the infrastructure, costs, and benefits associated with restoration of service; potential funding sources; and any other related information.

This Report, which fulfills the requirements of Section 11304, identifies the preferred option as restoring service between:

- New Orleans, LA and Orlando, FL via long-distance train for one daily round trip, and
- New Orleans, LA and Mobile, AL via state-supported train for one daily round trip.

This option consists of two of the five alternatives studied by Amtrak for its December 2015 report for the SRC. That report, titled *Potential Gulf Coast Service Restoration Options*, included an analysis of ridership levels, projected revenues, and associated costs. For the purpose of this Report, Amtrak's analysis was used to estimate annual operating needs for each service: $5.48 million for the long-distance train between New Orleans and Orlando, and $4 million for the state-supported train between New Orleans and Mobile.

The GCWG identified the Orlando and Mobile services as preferred because they outperformed the other options studied by Amtrak in terms of ridership demand and operating funding needs. In addition, they are expected to expand markets for tourism and business travel; reduce vehicular congestion on Interstate 10; improve access to jobs, education, and healthcare; and provide support for disaster and emergency response in a region susceptible to coastal storm events.

This Report considers restoring passenger rail service on the aforementioned corridor segments at two investment levels:

- Minimum needed for passenger rail service[1] – primarily station improvements. This investment level would support restoration of a long-distance train only at the level similar to the suspended *Sunset Limited* operations between New Orleans, LA and Orlando, FL; and
- Service level for ongoing operations – improvements that are intended to reduce trip times and enhance service reliability. This investment level would support the addition of the state-supported train, which would operate during the day when freight traffic between New Orleans and Mobile is higher; as a result, more improvements are recommended. However, the effectiveness of the improvements for on-time performance has not been validated as part of this Report, but doing so is recommended as a next step.

[1] The minimum needed for passenger rail service does not include Positive Train Control since the specific need for it has not yet been determined.

The GCWG discussed different proposals that require further discussion. FRA also identified a program of capital improvements and developed preliminary costs at each investment level for each corridor segment. See the Capital Cost Summary table below. Existing station improvements and associated costs were derived from Amtrak's 2016 analysis regarding the condition of suspended service stations along the Gulf Coast Corridor in Mississippi, Alabama, and Florida. All other improvements and costs listed were developed from infrastructure analysis conducted by FRA, which is the result of evaluating CSX's track charts, outputs from CSX's model that shows the freight activity along the corridor (i.e., string line diagrams), and recent aerial photos of the corridor.

Furthermore, for the service level for ongoing operations investment level, most of the proposed improvements for the restoration of passenger rail service from New Orleans to Orlando will benefit the freight operations and the proposed passenger service. With the exception of the passenger station related work, the following improvements will help the rail freight services as well as accommodate the passenger service: additional yard bypass tracks; improvements to passing sidings; addition of higher speed turnouts to existing siding tracks; and upgrades to miter rails on moveable bridges, which would allow for higher speeds, as well as others identified in Chapter 4.

It should be noted that Positive Train Control (PTC) and any associated signal system needs and costs are not included in FRA's recommendation because FRA, Amtrak, and CSX Transportation (CSX), which owns the right-of-way along this corridor, need to further assess the existing and planned operations on the line to make a final determination on those items before passenger rail service is restored, in accordance with federal law. A range of preliminary estimates for the cost of installing a PTC system is provided in Chapter 4 (Section 4.5.2.3), but these estimates relate only to PTC installation costs, not ongoing operation and maintenance (O&M) costs.

Capital Cost Summary – FRA's Identified Improvements for Restoration of Gulf Coast Intercity Passenger Rail Service[2]

Costs shown are in 2016 dollars.

Project Element	New Orleans to Mobile		Mobile to Orlando*		Subtotals		Total
	Minimum Needed for Passenger Rail Service	Service Level for Ongoing Operations	Minimum Needed for Passenger Rail Service**	Service Level for Ongoing Operations	Minimum Needed for Passenger Rail Service	Service Level for Ongoing Operations	
Planning & Project Development							$5,000,000
Siding Improvements		$45,880,000				$45,880,000	$45,880,000
Grade Crossings		$2,604,000				$2,604,000	$2,604,000
Yard Bypass Tracks		$28,036,000				$28,036,000	$28,036,000
Interlocking Improvements		$6,892,000				$6,892,000	$6,892,000
Movable Bridge Miter Rails		$7,277,000				$7,277,000	$7,277,000
Upgrade Existing Stations	$3,478,000		$4,342,000		$7,820,000		$7,820,000
New Station W. of Mobile		$4,192,000				$4,192,000	$4,192,000
Mobile Station Track	$1,898,000				$1,898,000		$1,898,000
Jacksonville Terminal				$8,073,000		$8,073,000	$8,073,000
Totals**	**$5,376,000**	**$94,881,000**	**$4,342,000**	**$8,073,000**	**$9,718,000**	**$102,954,000**	**$117,672,000**

** Infrastructure improvements end in Deland, FL*

***Positive Train Control (PTC) & base signal system installation needs and costs from Flomaton, AL to Jacksonville, FL and Flomaton, AL to Tallahassee, FL, respectively, have not been determined by the time this report was finalized. The installation of PTC could significantly increase the service restoration costs.*

As part of its infrastructure analysis, FRA considered and incorporated some of the elements (e.g., yard bypass tracks) from two infrastructure improvement plans produced by CSX. CSX's initial plan, which has a $2.3 billion estimate, was based on operations modeling analysis performed by CSX and its consultants; however, CSX stated it still may not be possible for passenger trains to operate with an on-time performance of 80% at all stations even after such investments were made. CSX then developed a plan with a reduced scope of improvements, which is based on a site visit of the Gulf Coast Corridor (operations modeling analysis was not conducted), and includes new and extended sidings as well as track, yard, bridge, and signal improvements. The revised plan's cost estimate is $780 million. In CSX's view, the improvements identified in its infrastructure plans provide necessary capacity to increase service reliability and limit impacts that would interfere with CSX's freight operations.

However, since providing the reduced scope of improvements, CSX has determined it is not valid and insists that their initial plan's $2.3 billion cost estimate is necessary to support passenger service. CSX believes that the most accurate analysis of what would be required to add modified Amtrak service described in this Report is the initial modeling authorized and funded by FRA and conducted by HDR with CSX as the intermediary.

The HDR study found that monumental capacity challenges exist along the CSX rail line, from New Orleans, LA to Mobile, AL to Deland, FL, which will make operating the proposed new passenger service that meets the required on-time performance of 80% very difficult and very expensive. Even with targeted capital projects estimated to cost more than $2.3 billion, the modeling estimates the long-distance train would still only reach 67% on-time performance, well below the federal requirement. CSX asserts that other efforts to seek fewer infrastructure enhancements and lower cost alternatives fail to adequately address federally mandated on-time performance requirements, potential degradation of freight service, and major causes of delay including moveable bridges. However, the HDR study was conducted solely by HDR and CSX,

[2] This table does not include operating costs.

and the non-proprietary assumptions, methodology, and inputs used to develop the model have not yet been fully shared with any other members of the GCWG. As such, the GCWG could not validate the results of the HDR study. The GCWG cannot concur with any proposed capital investment from CSX without understanding how the proposal was developed.

It is CSX's position that if Amtrak wishes to add modified passenger rail service along the Gulf Coast, the appropriate next step is for it to initiate the planning process with a formal notice to CSX so that the two parties, and ultimately the Surface Transportation Board (STB), can establish a path forward.

To illustrate an implementation schedule, FRA prepared an estimate of capital funding needs to implement FRA's identified improvements over the next five years, which is shown in the Five-Year Funding Plan table below.

Five-Year Funding Plan for FRA's Identified Improvements

Costs shown are in 2016 dollars. For planning purposes, FRA assumes a federal share of 80% and non-federal share of 20%.

	Planning and Project Development		Minimum Needed for Passenger Rail Service*				Service Level for Ongoing Operations					
			Year 1		Year 2		Year 3		Year 4		Year 5	
Project Element	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal
Planning & Project Development	$4,000,000	$1,000,000										
Stations			$3,887,200	$971,800	$3,887,200	$971,800	$3,270,667	$817,667	$3,270,667	$817,667	$3,270,667	$817,667
Infrastructure & New Stations							$24,183,733	$6,045,933	$24,183,733	$6,045,933	$24,183,733	$6,045,933
Annual Totals	**$4,000,000**	**$1,000,000**	**$3,887,200**	**$971,800**	**$3,887,200**	**$971,800**	**$27,454,400**	**$6,863,600**	**$27,454,400**	**$6,863,600**	**$27,454,400**	**$6,863,600**

** Positive Train Control (PTC) & base signal system installation needs and costs from Flomaton, AL to Jacksonville, FL and Flomaton, AL to Tallahassee, FL, respectively, have not been determined by the time this report was finalized. The installation of PTC could significantly increase the service restoration costs.*

As indicated above, a combination of local, state, and federal funding needs to be secured to support initial and ongoing capital costs. This is also the case for O&M needs; although, at this time, a funding plan for O&M needs has not been determined. However, in accordance with the requirements of FAST Act, Section 11304, this Report identifies potential funding and financing sources, both existing and anticipated, that could support the restoration of passenger rail service:

Existing

- Railroad Rehabilitation and Improvement Financing (RRIF) Program
- Transportation Infrastructure Finance and Innovation Act (TIFIA) Program
- Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program
- Restoration and Enhancement (REG) Program
- Infrastructure for Rebuilding America Grant Program
- Transportation Investment Generating Economic Recovery (TIGER) Program
- Railway-Highway Crossings (Section 130) Program
- Fiscal Year 2006 Gulf Coast High-Speed Rail Corridor Earmark Funds
- Local Community Funds

Anticipated

- British Petroleum's (BP) Oil Spill Proceeds

The next steps outlined in this Report are critical to advance the investment plan. CSX, FRA, Amtrak, and the SRC need to verify the recommended improvements to ensure the proper investments are identified for the restoration of service. Also, determining a funding plan for O&M needs and capital improvements will require additional analysis, coordination, and

collaboration among GCWG members. To maintain the momentum achieved by the GCWG, this Report recommends that Congress act quickly to provide at least $5 million (estimated) for planning and project development—which would include additional planning for operations modeling, required environmental studies, property acquisition for new station and terminal facilities, design/engineering, and construction.

Lastly, GCWG members, CSX, and Norfolk Southern Railway (NS), as host railroads, have been key stakeholders throughout this process, as have Amtrak and SRC. This Report identifies a number of important elements for the restoration of passenger service as well as additional considerations that need to be examined. However, CSX and NS have expressed concerns with some of the details in the Report, which are outlined in their letters to FRA dated April 18, 2017. CSX and NS remain important partners that the other stakeholders will continue to look to for input to make the restoration of passenger rail service a reality. FRA also received a letter from Amtrak expressing their support for this Report and their commitment to seeking solutions concerning the agreed upon infrastructure improvements. The SRC also provided a letter to FRA expressing their support for this Report and implementation of the preferred option, along with sentiments of disappointment regarding actions and statements made by CSX at a stakeholder meeting. Copies of letters from the aforementioned members are in Appendix A.

1 OVERVIEW

In 2005, Hurricane Katrina caused significant damage to the rail infrastructure in the Gulf Coast Corridor, leading to the suspension of Amtrak's passenger rail service east of New Orleans. Over the course of the past decade, it has become clear that the restoration of passenger rail service along the corridor is important to the region in order to sustain its economic growth and provide additional connectivity between growing economic centers and the region's smaller communities and rural areas and north-south intermodal routes.

As described further below, the FAST Act called for the preparation of a report that would identify plans, costs, funding options, and potential benefits for the restoration of passenger rail service. This legislation directed the Secretary of Transportation to create the GCWG to assess and present findings of capacity, cost, and implementing actions necessary to restore passenger service in the Gulf Coast region. The GCWG—a collaborative effort among the SRC, the States of Alabama, Florida, Louisiana, and Mississippi, local agencies, Amtrak, CSX, and other stakeholders—is chaired by FRA, under the direction of the FRA Administrator.

In order to facilitate the reading of this Report, Appendix B provides a glossary of railroad terms.

2 BACKGROUND AND HISTORY

2.1 DESCRIPTION OF GCWG SCOPE OF WORK

2.1.1 THE FAST ACT AND RESPONSE TO CONGRESS

The FAST Act comprehensively addressed all aspects of surface transportation—including roads, bridges, transit systems, and passenger rail—across the United States. Title XI – Rail authorizes numerous grants and initiatives, including Amtrak reforms, Intercity Passenger Rail Policy, Safety, Project Delivery, and Financing. Section 11304 of Title XI requires the Secretary of Transportation to establish GCWG with representatives from Amtrak, the states along the route, regional transportation planning organizations, metropolitan planning organizations (MPO), municipalities, communities along the proposed routes, the SRC, railroad carriers whose tracks may be used for such service, and other entities as deemed appropriate by the Secretary.

The responsibilities of the GCWG identified in Section 11304 include:

- Evaluate all options for restoring intercity rail passenger service in the Gulf Coast region, including options outlined in the report Amtrak transmitted to Congress pursuant to Section 226 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) (division B of P.L. 110–432);
- Select a preferred option for restoring the selected service;
- Develop a prioritized inventory of capital projects and other actions required to restore the selected service and cost estimates for such projects or actions; and
- Identify federal and non-federal funding sources required to restore the selected service, including options for entering into public-private partnerships to restore the selected service.

The GCWG is also tasked with creating this Report, to include the approach and rationale employed in recommending a preferred option for restoring intercity rail service, to submit to the Committee on Commerce, Science and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives.

2.1.2 GOALS

The immediate goal of the GCWG, reflected throughout the Report, is to provide sufficient, reliable information to be the starting point for restoring passenger rail service. In support of this goal, the GCWG's objective is to define the restored intercity passenger rail service in a manner that will ultimately achieve a new and improved schedule (timetable), increasing frequency and improving reliability compared to its historic counterpart, and operate without unreasonably impairing CSX's freight operations.[3] While the primary goal for the GCWG is to comply with the FAST Act, it is also helping to define the structure to develop a more robust multi-modal transportation network serving the Gulf Coast region. This is important to the affected states, cities, and communities that recognize how essential this will be to continue the growth that has occurred in the region during the past decade and promote further economic development.

2.1.3 REPORT ORGANIZATION

This Report provides an overview of the tasks assigned to the GCWG, the background of intercity passenger rail service along the Gulf Coast, and a proposed restoration and implementation plan developed by FRA, as Chair of the GCWG. This Report also provides descriptions of the parties involved and their commitment to seeing rail service restored to the region. Additionally, it outlines the station and infrastructure improvements required to restore service, along with the associated costs and benefits. Potential sources of funding are also identified.

2.2 HISTORY

2.2.1 PREVIOUS PASSENGER RAIL SERVICE TO THE GULF COAST

There is a long history of passenger rail service along the Gulf Coast Corridor between New Orleans and Jacksonville. Early on, service was provided by the *New Orleans-Florida Limited*, plus one or two very slow, unnamed local trains that stopped at every town along the way. The *New Orleans-Florida Limited* was replaced by the streamlined *Gulf Wind* in 1949. These trains were jointly operated by the Seaboard Air Line (later Seaboard Coast Line) and Louisville and Nashville railroads, now all part of CSX. By the time Amtrak took over intercity passenger service in 1971, service had dwindled to just the *Gulf Wind* and was reduced to a tri-weekly schedule. Between Flomaton, AL and New Orleans, service was also provided by a daily New Orleans-Cincinnati train, and as ridership declined on this segment, the two trains were often combined. Subsequent to 1971, there were several initiatives to provide service to all or portions of the corridor.

Between April 1984 and January 1985, and again between June 1996 and March 1997, Amtrak operated a daily state-funded train called the *Gulf Coast Limited* between New Orleans and Mobile, AL. Despite the evidence that there was strong ridership potential, the problems securing annual operating funds from the states of Louisiana, Mississippi, and Alabama resulted in the train's termination.

Between October 1989 and April 1995, Amtrak operated a daily through service between Mobile and New York via the *Gulf Breeze*, which operated as a section of the New York-New Orleans *Crescent*, separating from the *Crescent* at Birmingham. Amtrak discontinued the train in 1995 as

[3] See 49 U.S.C. § 24308(e)(2).

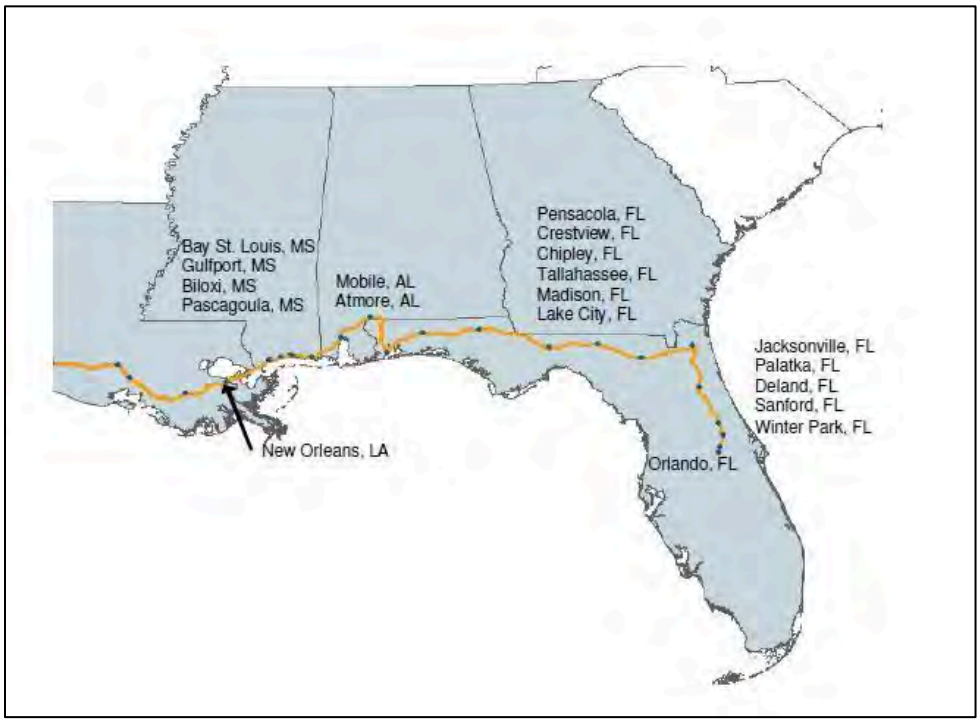
part of a broad cost-cutting measure.

Starting in April 1993, Amtrak extended tri-weekly Los Angeles-New Orleans *Sunset Limited* service east of New Orleans to Jacksonville and south to Miami, restoring passenger rail service over the full length of the Gulf Coast Corridor. In 1996, Amtrak cut back the eastern terminus to Sanford, FL, and in 1997 extended it to Orlando. As rail freight traffic congestion grew, on-time performance for the *Sunset Limited* became increasingly difficult, with the train often operating many hours late, and in extreme cases a day late, with on-time performance declining to 7% in the final year of service. This was exacerbated by the unusually long length of the route, resulting in frequent substitution of bus service east of New Orleans so that the rail equipment could be returned to New Orleans to get back on schedule. The poor on-time performance for the service, coupled with an inconvenient departure time from New Orleans, led to a significant decline in ridership between 2000 and 2004 (the last full year of operations). Gulf Coast trips (including trips where the origin, destination, or both were east of New Orleans) declined from 53,256 to 37,375.

The full corridor route is shown in

Figure **1**, and the evolution and configuration of various rail services are illustrated graphically in the series of schematic service diagrams located in Appendix C.

Figure 1 – Corridor Route Map



2.2.2 RECENT HISTORY OF LOCAL SUPPORT TO RESTORE PASSENGER SERVICE

Starting in 2010, mayors, businesses, and civic organizations on the Gulf Coast initiated conversations and individual recommendations, including use of potential BP oil spill settlement monies to fund restoration of a daily intercity passenger rail service to the region. In 2012, led principally by the mayors of Tallahassee, FL and Mobile, AL, a consensus was formally established by the municipal leaders of the 12 station communities affected by suspended service that the service should be restored and its operation should be a daily level of service far better than its predecessor. The SRC, a strong partner with the mayors in restoring passenger rail service to the Gulf Coast, has led this effort since 2014 as mayoral leadership changed in key coastal cities. Local support culminated in February 2016 during the Amtrak and SRC-hosted Gulf Coast Inspection Train trip to examine existing infrastructure and gauge public interest in restored service.

2.3 REGIONAL ECONOMIC SUMMARY

2.3.1 POTENTIAL ECONOMIC BENEFITS

To fully assess the potential return on an investment to support the restoration of passenger rail service along the Gulf Coast, the region is presented as a whole, looking across political boundaries. Appendix D provides a detailed presentation of the overall region's economic dynamics. Over twenty-two million people live in the four-state region, working in crucial U.S. industries like commercial seafood, shipping, tourism, and oil and gas production.

By the year 2050, the Gulf Coast megaregion's population is expected to increase by an estimated 10 million people, or 76%; similarly, the Florida megaregion is expected to grow by an estimated 13.8 million people, or 80%.[4] Passenger rail service could improve links between growing economic centers and the region's smaller communities and rural areas.

In addition to restoring passenger service, the continued viability of freight rail service to freight customers along the line is vital to growing the regional economy. As previously stated, one of the GCWG's goals is to reintroduce passenger trains while not unreasonably impairing CSX's ability to maintain freight service to its existing customers.

Chapter 4 identifies the GCWG's infrastructure analysis for restoring passenger rail service. The proposed services (including long-distance service between Orlando and New Orleans and daily state-supported service between Mobile and New Orleans) are anticipated to provide a number of economic benefits to communities, residents, visitors, and businesses across the Gulf Coast region:

- Expanded customer markets for tourism and business travel;
- Improved access to labor markets, educational opportunities, and healthcare; and
- Expanded transportation options.

[4] According to the America 2050 website (http://www.america2050.org), the Gulf Coast megaregion extends from the southern coast of Texas to the western Florida panhandle; principal cities include Houston, New Orleans, and Baton Rouge. The Florida megaregion includes most of Florida, areas east and south of Lake City, FL; principal cities are Miami, Orlando, Tampa, and Jacksonville.

Among the proposed passenger rail services' benefits are the expansion of business sales, income, and jobs along the corridor itself, as well as within its greater service area. Construction of needed capacity improvements, as well as operation of the proposed services, would also provide additional temporary and full-time jobs. The creation of economic investments in the corridor has already begun, and local examples are provided in Appendix D.

Additional station and infrastructure improvement projects described in Section 4.5.1 will create both temporary and permanent jobs through construction and operations. They also establish initial route-specific expenditures that start the multiplier effect of downstream economic impacts. These downstream economic impacts will likely be the greatest contributors to tourism and business travel.

The proposed long-distance service anchors two of the region's largest tourist economies—New Orleans and Orlando. In between these two cities lies Mississippi, with its coastal gaming and resort venues, Alabama's and Florida's gulf beaches, and a coastal region already offering the 20+ millions of annual visitors vibrant experiences in outdoor recreation, military history, collegiate and professional sports, culture, and the arts.

2.4 DESCRIPTION OF PARTIES INVOLVED

As the Chair of the Working Group, FRA identified the GCWG representatives who met Congress' intent and provided a range of representation and perspectives.

2.4.1 GULF COAST WORKING GROUP STRUCTURE & MEMBERSHIP

Members of the GCWG include representatives from FRA (Chair); Amtrak; State Departments of Transportation from Louisiana, Mississippi, Alabama, and Florida; municipalities and communities along the proposed route; regional transportation planning organizations; MPOs; the SRC; and railroad carriers whose tracks may be used for the proposed service (CSX, NS, and Florida DOT/SunRail). Appendices E and F provide a complete listing and detailed description of the over 60 groups/organizations that participated in the GCWG. Organizations that have submitted a resolution in support of the GCWG's goals are noted in Appendix G.

Members of the GCWG have demonstrated a deep commitment to the process and have met bi-weekly from March 2016 through September 2016, on the second Thursday of each month (via teleconference) and the fourth Thursday of the month (in-person meeting hosted by a city along the proposed route). After September 2016, the GCWG was unable to conduct routine in-person meetings due to limited travel allowances. From October 2016 to February 2017, CSX, Amtrak, SRC, and FRA formed a Technical Group and held three in-person meetings to undertake the highly technical aspects of planning for this effort. Minutes of each meeting were prepared by FRA's Monitoring and Technical Assistance Contractor, Urban Engineers, Inc., which are available from FRA upon request. Urban Engineers, Inc. also assisted the GCWG in preparing this Report.

2.4.2 GCWG INTERACTION WITH CONGRESSIONAL MEMBERS

A kick-off to the work of the GCWG was held in February 2016 during the Amtrak and SRC--hosted Gulf Coast Inspection Train trip referenced in the Executive Summary. Interested state and local elected officials and Congressional members participated in this effort in order to view, first-hand, the infrastructure and station improvements that would be required to restore passenger service. As noted in Section 2.4.1 above, the GCWG began meeting in March 2016 in

cities along the proposed route. Congressional staff members participated in some of these meetings and provided input. In September 2016, FRA, as the GCWG Chair, provided a detailed briefing to Senate Commerce Committee staff and Senator Roger Wicker on the status of the GCWG's efforts. This was followed by status update letters submitted to Congressional members on September 2, 2016 and December 14, 2016, provided in Appendix H.

3 EXISTING CONDITIONS

3.1 EXISTING RAILROAD INFRASTRUCTURE

3.1.1 ELEMENTS OF RAIL INFRASTRUCTURE

There are many elements of railroad infrastructure that impact the ability to accommodate freight and passenger rail traffic, as well as the speed and reliability of that traffic. They include track, signals, grade crossings, and bridges. Appendix I provides a detailed description of these elements in order to better understand how they influence current operations and future service needs.

3.1.2 EXISTING GULF COAST CORRIDOR RAIL INFRASTRUCTURE

This section identifies the existing rail infrastructure in the Gulf Coast Corridor. General characteristics are summarized in Table 1, and are located graphically on the map in Figure 2. The characteristics show the route's challenges regarding signal systems (or lack thereof), track speeds, track capacity, and other considerations.

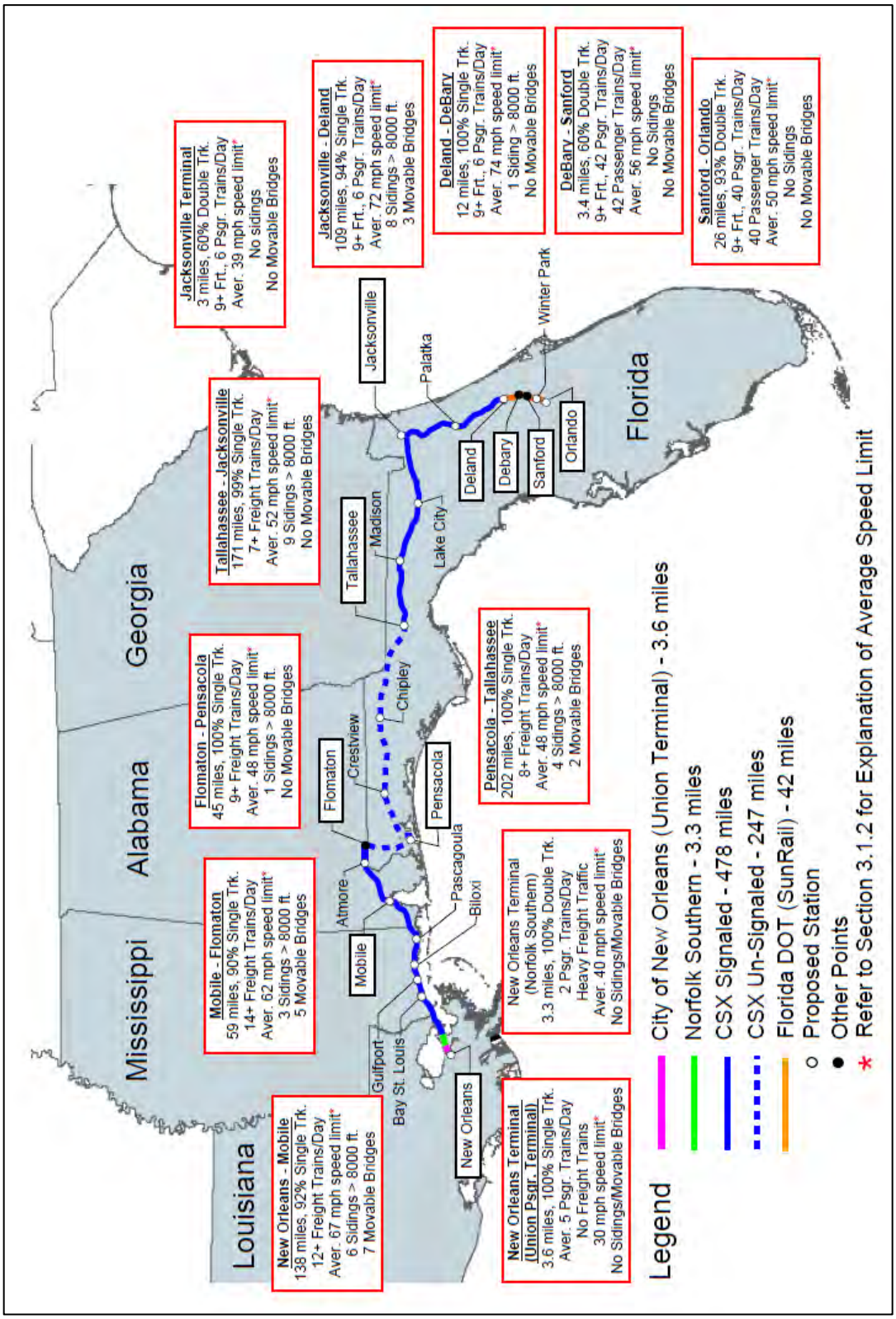
The Gulf Coast Corridor between New Orleans and Orlando is 775 miles in length and is almost entirely single track. There are 17 movable bridges between New Orleans and Orlando, seven of which are between New Orleans and Mobile. Between Flomaton and Tallahassee, a distance of 247 miles, there is no signal system. The average speed limits shown are for passenger trains and are calculated based on the various speed limits posted in the railroad employee timetable and the distances over which they apply. The average speed achieved by a passenger train would be lower, taking into account station stops, bridge openings, and variable operating conditions such as interaction with freight trains.

Table 1 – Existing Gulf Coast Rail Infrastructure

			New Orleans Terminal		New Orleans to Mobile	Mobile to Flomaton	Flomaton to Pensacola	Pensacola to Tallahasee	Tallahasee to Jacksonville	Jacksonville Terminal	Jacksonville to Deland	Deland to DeBary	Debary to Sanford	Sanford to Orlando
Owner			NOUPT	NS	CSX	CSX	CSX	CSX	CSX	CSX	CSX	Florida DOT	Florida DOT	Florida DOT
Route Length (miles)			3.6	3.3	137.7	59	45	202	171	3	109	12.2	3.4	26.19
Route Miles	Single Track		3.6	0	127.1	53.4	45	202	168.8	1.1	103.3	12.2	1.3	1.9
	Double Track		0	3.3	10.6	5.6	0	0	2.2	1.9	5.7	0	2.1	24.29
Signal System			Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Aver. Passenger Speed Limit (mph)			30	40	67	62	48	48	52	39	72	74	56	50
Siding Lengths (No.)	<4000 feet		0	0	1	2	1	0	3	0	0	0	0	0
	4000 to 8000 feet		0	0	3	3	1	1	3	0	0	0	0	0
	>8000 ft.		0	0	6	3	1	4	9	0	8	1	0	0
Siding Type (No.)	Signaled		0	0	3	5	0	0	5	0	8	0	0	0
	Controlled		0	0	7	3	3	5	10	0	0	1	0	0
Average Siding Spacing (Miles)			n/a	n/a	12.7	6.7	15.0	40.4	11.3	n/a	12.9	12.2	n/a	n/a
Number of Movable Bridges			0	0	7	5	0	2	0	0	3	0	0	0
No. of Grade Crossings	Flashers and/or Gates		0	0	152	11	57	156	127	1	111	3	2	68
	No Auto Devices		0	0	26	6	9	28	28	0	23	3	1	0
Aver. Weekday Trains (No.)*	NB or WB	Psgr.	2.5	2	0	0	0	0	0	3	3	3	21	20
		Frt.	0	*	6.3	7.4	4.6	4.2	3.7	4.7	4.7	4.7	4.7	4.7
	EB or SB	Psgr.	2.5	2	0	0	0	0	0	3	3	3	21	20
		Frt.	0	*	6.4	7.2	4.6	4	3.6	4.3	4.3	4.3	4.3	4.3

Freight movements are frequent but variable; average not applicable.

Figure 2 – Map of Existing Gulf Coast Rail Infrastructure



3.1.2.1 OTHER INFRASTRUCTURE

POSITIVE TRAIN CONTROL

Under 49 U.S.C. § 20157, each Class I railroad and each entity providing regularly scheduled intercity or commuter rail passenger transportation must implement a PTC system on: (1) its main line over which 5 million or more gross tons of annual traffic and poison- or toxic-by-inhalation hazardous materials are transported, and (2) its main line over which intercity or commuter rail passenger transportation is regularly provided.[5] By law, a PTC system must be designed to prevent train-to-train collisions, over-speed derailments, incursions into established work zones, and the movement of a train through a switch left in the wrong position.[6]

CSX must implement PTC systems on each main line track segment subject to the statutory mandate, unless it receives FRA approval of a *de minimis* exception, a routing change request, or a passenger main line track exception under FRA's regulations. Moreover, if any new passenger service is added to CSX's main line that triggers the need for PTC system implementation, CSX must submit to FRA a request for amendment (RFA) to its PTC Implementation Plan (PTCIP) for FRA review and approval under FRA's RFA procedures.[7] If the new passenger service qualifies for a passenger main line track exception under 49 CFR § 236.1019, the RFA may also include a request, subject to FRA review and approval, for an applicable exception for all or part of the main line track segment, as appropriate.

Cost sharing options will be explored as appropriate for sections of the rail line where it is determined that PTC system implementation is not required unless there is the addition of passenger rail service.

Lastly, separate from this restored passenger rail service effort, CSX has stated it will implement a PTC system between New Orleans and Flomaton and between Jacksonville and Deland. In addition, SunRail has stated it will implement a PTC system on its entire network, which includes the Deland to Orlando segment where the restored passenger service would operate. SunRail will coordinate with CSX and Amtrak to achieve interoperability of their PTC systems where they operate over the same track.

ORLANDO

Upon arriving in Orlando and deboarding passengers, the long-distance passenger train will need to reverse direction to return north to Sanford, where Amtrak has facilities for parking and servicing the train between runs. For departure back to New Orleans, the train will need to return south to Orlando and again reverse direction before departing north toward New Orleans. There are two wyes[8] approximately 6 and 8.5 miles, respectively, south of the Orlando station. One of these could be potentially used to turn around a train terminating at Orlando. Both wyes include a highway grade crossing, across which a turning train would have to make a backup

[5] Rail Safety Improvement Act of 2008, P.L. No. 110-432, § 104(a), 122 Stat. 4848, 4857–58 (Oct. 16, 2008), as amended by the Positive Train Control Enforcement and Implementation Act of 2015, Pub. L. No. 114-73, 129 Stat. 568, 576–82 (Oct. 29, 2015) and the Fixing America's Surface Transportation Act, P.L. No. 114-94, § 11315(d), 129 Stat. 1312, 1675 (Dec. 4, 2015).

[6] *See, e.g.*, 49 U.S.C. § 20157(i)(5); 49 CFR § 236.1005.

[7] 49 CFR §§ 236.1009(a)(2)(ii), 236.1021; 49 U.S.C. § 20157(a)(2)(C).

[8] This railroad term and others are defined in Appendix B.

move. Between the two wyes there is a controlled siding 6,989 feet in length. At the Orlando station, SunRail recently added a third track that could be used. More information on the Orlando area and SunRail's operations can be found in Section 4.4.1.3. In general, servicing the Orlando station will require further study.

NEW ORLEANS RAIL GATEWAY

The New Orleans Rail Gateway (NORG) (also known as the New Orleans Terminal Gateway) is an area within Jefferson and Orleans Parishes that provides a critical link in the east-west distribution of freight traffic and allows access to Canada and Mexico; it is where six of the seven U.S. Class I Railroads and one short line railroad converge. The NORG stretches from the City of Avondale, LA via the Huey P. Long Bridge to just west of Gentilly Yard in New Orleans. Located in the center of the NORG is the New Orleans Union Passenger Terminal (NOUPT).

The NORG's rail corridor is mostly double track with some single-track segments, and the infrastructure currently accommodates three existing Amtrak routes—the *City of New Orleans*, the *Sunset Limited*, and the *Crescent*—as well as the freight trains of Burlington Northern Santa Fe (BNSF), Canadian National (CN), CSX, Kansas City Southern (KCS), NS, New Orleans Public Belt (NOPB), and Union Pacific (UP). Each of these railroads maintains a major facility within the New Orleans Gateway. Initiating additional passenger frequencies in this congested area may have operational impacts beyond those already studied separate from this effort, as a result of the occupation of the terminal area track that is otherwise used by these freight carriers on through and connecting routes, and in order to interchange traffic with each other. Additionally, within one 3.3-mile segment of an anticipated new route, there are three different dispatching entities (Amtrak, NS, and CSX). A separate study is currently underway (although it is on hold) to address overall freight movement needs through the New Orleans area, including areas adjacent to the NOUPT.

4 PROPOSED RESTORATION PLAN

4.1 PREVIOUSLY STUDIED OPTIONS

As required by PRIIA, Amtrak studied restoration of service between New Orleans and Sanford, FL, issuing a report in 2009. After initially considering 12 different service alternatives, Amtrak selected three options for further analysis:

- Restoration of tri-weekly *Sunset Limited* service between Los Angeles and Orlando;
- Extension from New Orleans to Orlando of the daily *City of New Orleans* operating between Chicago and New Orleans; and
- A separate overnight service operating daily between New Orleans and Orlando.

As noted on page 44 of the 2009 Amtrak report, coastal communities preferred daily service:

"*…Most of those in the Gulf Coast Region who provided comments via Amtrak's stakeholder interviews and outreach efforts considered…a daily…train between New Orleans and Orlando… to be the most desirable of the three preferred options because it would provide a reliable daily service….*"

In 2015, Amtrak again studied restoration of service, this time at the request of the SRC, and completed a report in December 2015. Amtrak dropped the previously studied alternative of extending the tri-weekly *Sunset Limited* from consideration because of the extremely long route

between Los Angeles and Orlando, and the associated history of severe on-time performance issues, with the train routinely operating many hours late and in extreme cases as much as a day late. The 2015 report contains updated figures reflecting changes in market demand and operating assumptions, such as a modified schedule assumption and more economical train assumptions. Furthermore, the financial forecasts included in this 2015 evaluation reflect updated base cost data from more recent system-wide cost experience, and identifies and prices state-supported service under the PRIIA 209 methodology[9]. The 2015 study considered five alternatives, including options for daily corridor service between New Orleans and Mobile, AL. The service alternatives studied are as follows:

- Alternative A: A daily overnight long-distance train operating each way between New Orleans and Orlando that would operate as an extension of the Chicago-New Orleans *City of New Orleans,* with through equipment from Chicago to Orlando, plus a daily state-supported train operating round trip between New Orleans and Mobile.
- Alternative A1: A daily overnight long-distance train operating each way between New Orleans and Orlando that would operate as an extension of the Chicago-New Orleans *City of New Orleans,* with through equipment from Chicago to Orlando.
- Alternative B: Two daily state-supported trains operating round trip between New Orleans and Mobile, with no service east of Mobile to Orlando.
- Alternative B1: Two daily state-supported trains operating round trip between New Orleans and Mobile, with a Thruway bus connecting with one of the trains to provide service east of Mobile to Jacksonville.
- Alternative C: A daily overnight long-distance train operating each way between New Orleans and Orlando.

The ridership, passenger miles, revenue, operating costs (not including incremental operating cost of CSX track and infrastructure maintenance), and subsidy requirements of the five alternatives are summarized in

Table **2**.

[9] Section 209 led to the development and implementation of a single, nationwide standardized methodology for establishing and allocating operating and capital costs among the States and Amtrak associated with trains operated on each of the routes described in section 24102(5)(B) and (D) and section 24702.

Table 2 – Summary of Alternatives Considered in Amtrak 2015 Study

	Alternatives	A	A1	B	B1**	C
Projected Annual Passengers	Long Distance Train	119,100	138,300			69,100
	State Supported Train	34,800		38,400	43,400	
	Total	153,900	138,300	38,400	43,400	69,100
Annual Rail Passenger Miles (millions)	Long Distance Train	61.30	63.00			24.04
	State Supported Train	3.80		3.79	5.23	
	Total	65.10	63.00	3.79	5.23	24.04
Annual Ticket, Food & Beverage Revenue (millions)	Long Distance Train	$11.96	$12.25			$4.03
	State Supported Train	$0.76		$0.70	$1.05	
	Total	$12.72	$12.25	$0.70	$1.05	$4.03
Annual Operating Cost (millions)	Long Distance Train	$17.67	$17.73			$18.43
	State Supported Train*	$4.54		$7.67	$9.30	
	Total	$22.21	$17.73	$7.67	$9.30	$18.43
Annual Incremental Operating Loss (millions)	Long Distance Train	$5.71	$5.48			$14.40
	State Supported Train	$3.78		$6.97	$8.26	
	Total	$9.49	$5.48	$6.97	$8.26	$14.40

* Includes annual equipment capital expense charges to state partners

** State supported train numbers include Thruway bus between Mobile and Jacksonville

During the February 2016 inaugural GCWG meeting, the members formally agreed to adopt Alternatives A and Al from Amtrak's 2015 study for further consideration in this Report. Alternative A generates the highest levels of ridership and passenger miles and provides service to the entire Gulf Coast region. Alternative C generates lower ridership than A1 because it would require passengers to and from points north of New Orleans to change trains in New Orleans. Alternatives B and B1 have lower ridership and passenger miles because they do not provide rail service between Mobile and Orlando.

4.2 DESCRIPTION OF PROPOSED SERVICE OPTIONS

4.2.1 ALTERNATIVE A

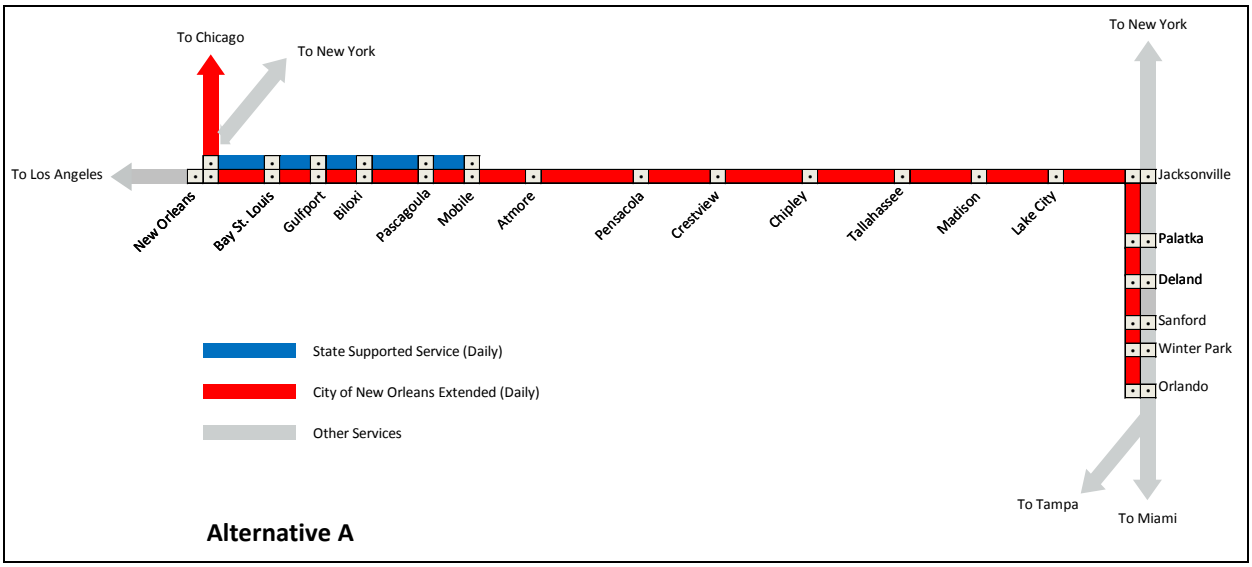
Alternative A provides daily service each way between New Orleans and Orlando, operating as an extension of the Chicago-New Orleans *City of New Orleans* train. The train would offer through service between Orlando and points north of New Orleans, including Jackson, MS; Memphis, TN; and Chicago, IL. At Jacksonville, the train would offer connections to points north toward Georgia, the Carolinas, Virginia, and Washington, DC, and points in the Northeast Corridor including Philadelphia, PA; New York City, NY; and Boston, MA.

At Orlando, connections would be available to both Tampa and Miami. Amtrak Thruway motor coach service would provide connections to additional Florida cities. At New Orleans, an overnight connection to the tri-weekly *Sunset Limited* to points west including Houston, San Antonio, and Los Angeles would be available three days each week. Three sets of rail equipment including cars and locomotives would be required to operate this service. Through-running equipment from the *City of New Orleans* would include a Superliner coach, Superliner coach-baggage, Superliner Cross-County Café car (offering food service), and a Superliner sleeping car.

In addition, Alternative A provides an additional state-supported train between New Orleans and Mobile, resulting in two trains that would provide service between those cities. This additional

service results in the highest total ridership of the alternatives considered, but requires additional equipment and incurs additional operating cost. Equipment for the extended *City of New Orleans* would include a Superliner coach, Superliner coach-baggage, Superliner Cross-County Café car (offering food service) and a Superliner sleeping car. The state-supported train would include coach service (Superliner or single-level Horizon coach) and food service (Superliner Sightseer Lounge or single-level Horizon or Amfleet-I Club dinette. Both services are shown schematically in Figure 3.

Figure 3 – Alternative A

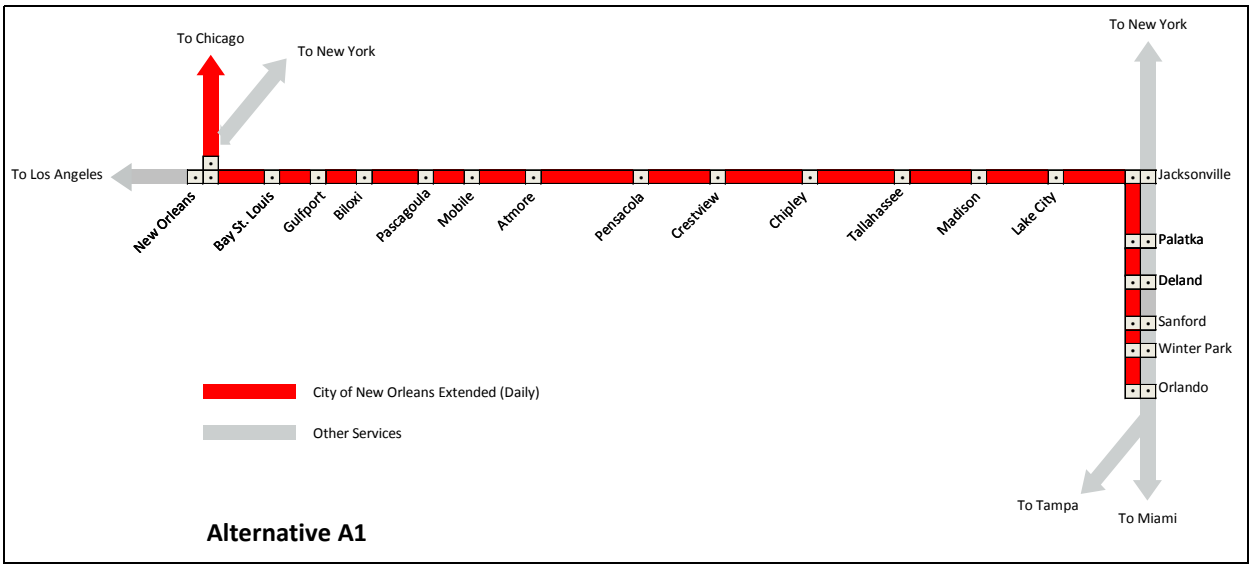


4.2.2 ALTERNATIVE A1

Alternative A1 provides service between New Orleans and Orlando, but does not include a daily state-supported train between New Orleans and Mobile. Similar to Alternative A, the train provides daily service each way between New Orleans and Orlando, operating as an extension of the Chicago-New Orleans *City of New Orleans* train. The train would offer through service between Orlando and points north of New Orleans, including Jackson, Memphis, and Chicago. At Jacksonville, the train would offer connections to points north in Georgia, the Carolinas, Virginia, Washington, DC, and points in the Northeast Corridor including Philadelphia, New York City, and Boston.

At Orlando, connections would also be available to both Tampa and Miami. Amtrak Thruway motor coach service would provide connections to additional Florida cities. At New Orleans, an overnight connection to the tri-weekly *Sunset Limited* to points west, including Houston, TX; San Antonio, TX; and Los Angeles, CA, would be available three days each week. Three sets of rail equipment including cars and locomotives would be required to operate this service. Through-running equipment from the *City of New Orleans* would include a Superliner coach, Superliner coach-baggage, Superliner Cross-County Café car (offering food service), and a Superliner sleeping car. The service is shown schematically in Figure 4.

Figure 4 – Alternative A1



4.2.3 PREFERRED OPTION

The GCWG selected Alternative A as the preferred service option as it would provide a daily, round trip long-distance train and a daily, round trip corridor train. However, the GCWG supports Alternative A1 as an option to restore service in the near term if initial funding resources are only available for the long-distance train.

4.3 PASSENGER SERVICE SCHEDULE COMPARISON

Amtrak's 2015 report on *Potential Gulf Coast Service Restoration Options* included a proposed schedule for the long-distance service operating as an extension of the Chicago-New Orleans *City of New Orleans* train. Similar to previous schedules when the train operated as an extension of the Los Angeles-New Orleans *Sunset Limited*, the run between New Orleans and Orlando spans the overnight hours; although, there are variations in the arrival and departure times at the two cities. The schedules of the service proposed in 2015 and the schedules of the train when it previously operated in 1999 and 2005 are shown for comparison in Table 3. The end-to-end running times and average speed obtained, accounting for station stops and other operating conditions including interaction with freight trains, in the proposed 2015 schedule are similar to the schedule in 1999. The 2005 schedule was slower due to reduced speed limits in some areas and additional recovery time built into schedules to account for increased delays.

Table 3 – Schedule Comparison of Long-Distance Train

	Eastbound				Westbound			
		1999*	2005*	Proposed in 2015		1999*	2005*	Proposed in 2015
		From Los Angeles	From Los Angeles	From Chicago		To Los Angeles	To Los Angeles	To Chicago
New Orleans (CT)	↓	8:15 PM	10:30 PM	5:00 PM	↑	11:26 AM	9:20 AM	9:30 AM
Orlando (ET)		3:20 PM	8:45 PM	11:30 AM		6:50 PM	1:45 PM	4:15 PM
Running Time (Hrs:Min)		18:05	21:25	17:30		17:36	20:35	18:15
Average Speed (Mph)		43	36	45		44	38	43

** Source: Amtrak Public Timetables*

4.4 OPERATIONAL REQUIREMENTS

4.4.1 TERMINALS

Appropriate facilities will be required to store and service trains at their terminals. It is important to understand these requirements because they will influence the capital needs for restoring the service described in Alternatives A and A1.

4.4.1.1 NEW ORLEANS

The NOUPT (owned by the City of New Orleans) already serves two daily plus one tri-weekly Amtrak trains. This station has sufficient facilities for servicing both an extension of a section of the *City of New Orleans* overnight train to Orlando plus a daily service between New Orleans and Mobile. The facilities include a wye track, used for turning a train around.

4.4.1.2 MOBILE

A day train operating from New Orleans to Mobile and returning the same day would need a track on which to park the train during the middle of the day. If a push-pull pull train is used with a locomotive on one end and a cab control car on the other end, the train can operate in reverse to return to New Orleans, and a simple single-ended storage track is all that would be needed. The seats on the train could be reversed during the layover. Otherwise, the train will have to be turned around on a wye track. The nearest existing wye is about 13 miles south in the direction of New Orleans and would require a backup move of 13 miles in each direction, which is not considered desirable. In the other direction, the nearest wye is about 24 miles away in Bay Minette, requiring a 48-mile round trip to turn the train.

4.4.1.3 ORLANDO AREA AND SUNRAIL OPERATIONS

There are limited facilities for servicing or turning a long-distance train at or near the Orlando Station, and with only three station tracks already serving 18 SunRail commuter trains in each direction, and two Amtrak trains in each direction, there is little or no opportunity for parking another long-distance train there for any length of time. However, there is a wye track for turning a train about 8.5 miles south of Orlando, and there are existing Amtrak facilities for servicing and storing trains plus a wye at Sanford, 26 miles to the north. In the past, after deboarding its passengers at Orlando, the long-distance train (*Sunset Limited*) from New Orleans would proceed south to the wye, turn around, and then head north to Sanford, where it would again turn on a wye and back into Amtrak's facility for servicing and overnight storage. The next

day, the train would back out onto the main line and head south to the wye south of Orlando, where it would again turn around and then head back north to Orlando, where it would load passengers and begin its trip to New Orleans. This procedure is still possible using existing infrastructure; however, it involves a total of 86 miles of dead head running, three turnings of the train, and unlike in the past, must now be integrated with frequent SunRail commuter operations. The procedure will likely take significantly more time than in the past.

SunRail will consider another option, which would be a new process since it added a third track at the Orlando station. The restored passenger service would run on the third track at the Orlando Station and detrain the passengers. Amtrak would then cut the locomotive power off the south end of the train and run around the train on track #2 and couple up on the north end on the train. Once the locomotive power is on the north end, Amtrak would operate northbound back to the Amtrak Auto Train Facility. SunRail would handle the dispatching for this option. This procedure would require the Amtrak train to operate with two locomotives coupled back-to-back in order to have a control cab facing forward for the run back to the Amtrak facility in Sanford.

4.4.1.4 ROLLING STOCK EQUIPMENT

For the restored Gulf Coast passenger rail service, Amtrak could utilize equipment associated with the *City of New Orleans'* equipment as well as add equipment to run the long-distance train east to Orlando to maximize capacity. For the New Orleans to Mobile service, Amtrak will explore the availability of equipment currently used on corridors elsewhere in the country. There are no plans to purchase new rolling stock for this service, and, therefore, any associated costs would be considered an O&M expense.

4.5 CAPITAL IMPROVEMENTS

4.5.1 STATION REVIEW

An Amtrak team of engineers and architects with significant station design experience conducted on-site surveys during the week of July 10-16, 2016, to prepare the individual (Amtrak) Station Condition Assessment provided in Appendix J. The comprehensive reports provide a condition overview assessment for the 12 stations located along the Gulf Coast in Mississippi, Alabama, and Florida, where Amtrak service was suspended. The assessment's reports encompass the station site, station building (interior and exterior and building systems), and Americans with Disabilities Act (ADA) accessibility observations for these 12 stations. The reports also include photographic records of observed conditions and an order-of-magnitude cost estimate that considers local conditions to restore service to the stations based on 2016 costs and appropriate contingencies. The estimated order-of-magnitude capital costs for the comprehensive list of improvements is $13.4 million. And, per the GCWG's request to identify an incremental approach for improvements, Amtrak provided a narrower list of essential (i.e., minimum) improvements needed to restore service, which are estimated to cost $7.8 million (in 2016 dollars).

4.5.1.1 APPROACH TO DEFINING INCREMENTAL STATION IMPROVEMENTS

As noted above, to reduce the immediate capital funding needs for station improvements, critical upgrades essential for the restoration of passenger rail service were identified by Amtrak. The assessment team defined "restoration of service" to each station to be the minimum required to achieve the following three objectives (also referred to as the "minimum required"):

- Allow a train to safely load and detrain passengers;
- Allow passengers to travel safely from the public right-of-way to the train via a safe and code-compliant platform and path of travel; and
- Comply with all current required codes and 49 CFR part 37 "Transportation Services for Individuals with Disabilities" (hereafter "49 CFR 37"). 49 CFR 37 provides the ADA Standards issued by the Department of Transportation that apply to facilities used by state and local governments to provide designated public transportation services, including bus stops and stations, and rail stations. Meeting 49 CFR 37 requirements will allow the first two objectives to be met.

Consequently, the revised assessment, providing the immediate increment of improvements and associated capital costs needed to restore passenger rail service, excludes restoration of, or other improvements to, the following:

- Amenities that existed at the time of service suspension, including baggage handling;
- Existing station buildings or shelter construction or other appurtenances thereto;
- Parking facilities not required to achieve a 49 CFR 37 compliant path from the public right-of-way to platforms; and
- Site, civil, electrical, mechanical, plumbing, storm water remediation, or other utilities that are the responsibility of local municipalities that do not hinder the minimum required above.

The revised/minimum required assessment recommended that the existing station buildings or shelters be immediately and completely closed and protected with access granted only to those whose duties require entry. However, individual communities are welcomed to improve these facilities to suit local needs and through separate efforts, since these facilities are not required to restore passenger rail operations.

Existing parking lot surfaces that require patching, restriping, regrading or full resurfacing should also be addressed by each individual city/municipality, and are not included in the revised assessment of required improvements to initially restore service. Finally, while this assessment identifies those items required to restore service, it is understood that the responsibility for implementing these items rests with each individual city/municipality.

Restoration of Gulf Coast passenger rail service need not wait for all stations to be made ready for service. Amtrak anticipates that, if necessary, service could be resumed bypassing certain stations until they have been made ready for service.

4.5.1.2 HIGHLIGHTS/SUMMARY OF ASSESSMENT FINDINGS

All of the 12 stations surveyed require some prior repair work to minimally restore passenger service to this portion of the route from New Orleans to Orlando. The key observations regarding the minimum requirements for service restoration at the majority of stations are:

- Sites are in adequate condition: In general, the sites and landscaping at all of the stations are in adequate condition and do not require any immediate work. Common to most stations is a general deterioration of parking lot surfacing, which requires patching, restriping, or resurfacing. As noted above, these improvements were not addressed or included in the immediate list of improvements. The exception is Pascagoula, at which a comprehensive rework of the site is required as a result of a CSX track relocation that occurred after 2005, leaving the existing passenger platform several feet away from the tracks.

- Signage requires a full upgrade: All signage at all the stations is outdated and does not meet current Amtrak or ADA standards. Signage is required to be upgraded for both operational need and ADA compliance. Signage replacement should be accomplished on a programmatic basis for all stations.
- Platform Conditions: The platforms, with a few notable exceptions, are in acceptable condition and could be restored to safe service with routine patching and minor repairs. At Pascagoula and Atmore, however, a full replacement of the platforms is required prior to the restoration of service. At these stations, the platforms have deteriorated to the point where patching is not a viable solution. For both stations, an eight-inch (8") top of rail platform is proposed in keeping with 49 CFR § 37.42 for stations adjacent to freight rail traffic. Where they exist, platform canopies are in sound physical condition; although, some require roof system repair to eliminate leaks.
- Tactile Warning Surfaces require full replacement: With very few exceptions, the tactile warning surface systems require a full replacement along the full length of each platform as they are uniformly beyond a state of good repair. Like the signage replacement, this, too, should be a programmatic effort in order to ensure that work is accomplished in a uniform manner, meeting both FRA and Amtrak requirements.
- ADA Considerations: All stations require ADA improvements to render them accessible to passengers with disabilities under the current requirements of 49 CFR 37, inclusive of path of travel, provision of wheelchair lifts and/or enclosures, and platform work.
- Passenger Information Display systems are absent: All stations could remain without Passenger Information Display Systems (PIDS) as there were none in place before 2005, which is allowable under ADA regulations if a public address system is not present.
- Electrical and Lighting Recommendations: Another programmatic recommendation is to replace all existing lighting fixtures to provide sufficient lighting to meet ADA requirements for accessible paths of travel, and test all existing utilities to ensure that required lighting can be adequately powered by these utilities in their current condition. Some have not powered facilities for over 10 years.

4.5.1.3 ORDER-OF-MAGNITUDE CAPITAL COST SUMMARY

The Project Design & Construction Budget provided in Table 4 identifies a total estimated capital cost of $7.8 million to implement the recommended station improvements that are essential to restore passenger service. The notes in Table 4 identify several of the key assumptions made in developing these order-of-magnitude cost estimates. Appendix J provides the complete summary of the assessment findings essential to the restoration of passenger rail service, as well as a very detailed description of individual station findings, recommended improvements, and the order-of-magnitude cost of returning these stations to a state of good repair. In both cases, the cost includes design, construction, soft costs (administration, construction management, etc.), and a 30% contingency, which is an industry standard.

Table 4 – Summary of Essential Station Restoration Costs

Project Design & Construction Budget					9/22/2016
Overall Estimate to Meet Minimum Requirements to Restore Service					
Station	Design	Construction	Soft Costs	Contingency	Total Costs
Lake City FL	$30,527	$305,273	$30,527	$109,898	$476,226
Madison, FL	$29,134	$291,339	$29,134	$104,882	$454,489
Tallahassee, FL	$17,999	$179,993	$17,999	$64,797	$280,789
Chipley, FL	$30,130	$301,302	$30,130	$108,469	$470,031
Crestview, FL	$30,266	$302,664	$30,266	$108,959	$472,156
Pensacola, FL	$39,969	$399,693	$39,969	$143,889	$623,521
Atmore, AL	$100,299	$1,002,987	$100,299	$361,075	$1,564,660
Mobile, AL	$17,514	$175,144	$17,514	$63,052	$273,225
Pascagoula MS	$105,659	$1,056,586	$105,659	$380,371	$1,648,274
Biloxi, MS	$20,787	$207,874	$20,787	$74,835	$324,283
Gulfport, MS	$41,600	$416,001	$41,600	$149,760	$648,962
Bay St. Louis, MS	$37,369	$373,686	$37,369	$134,527	$582,950
Grand Total	**$501,254**	**$5,012,542**	**$501,254**	**$1,804,515**	**$7,819,566**

Notes:

1. Assumes no escalation. Based on 2016 Dollars, and construction within 2016.
2. Assumes no PIDS.
3. Assumes no environmental work.
4. Does not include additional 10% Owner's reserve.
5. Assumes Construction, Design (10% of Construction), Soft Costs (10% of Construction),
6. Contingency (30% of Design, Construction, Soft Costs Total)

4.5.2 RAIL INFRASTRUCTURE

4.5.2.1 BACKGROUND

The Gulf Coast Corridor between New Orleans and Orlando is 775 miles in length, and is composed of four different owners:

- City of New Orleans: Within NOUPT's boundary, 3.6 miles of track is currently used by Amtrak passenger trains to access the New Orleans terminal station.
- New Orleans Terminal: This belt line owned by NS is on the north side of New Orleans and is currently used by freight and Amtrak passenger trains. The portion that would be used by Gulf Coast passenger trains is approximately 3.6 miles in length.
- CSX: From New Orleans to Deland, FL, a distance of 727 miles, the route is owned by CSX. The segment from New Orleans to Jacksonville, 615 miles, is currently freight only, while the Jacksonville station segment (3 miles) and the segment from Jacksonville to Deland (109 miles) is used by freight and Amtrak passenger trains.
- SunRail: The 42 miles of track from Deland to Orlando is owned by Florida DOT and is operated by SunRail. This segment operates commuter service and accommodates freight trains and Amtrak passenger trains.

The portion of the Gulf Coast Corridor owned and operated by CSX between Gentilly Yard on the eastern side of New Orleans and Jacksonville, 618 miles or 80% of the entire New Orleans-Orlando route, is the primary segment where infrastructure improvements could benefit passenger rail operations. This segment is currently occupied only by rail freight service. Freight operations are largely unscheduled and can vary from day to day based on the needs of local freight customers, the varying arrival of freight trains from connecting railroads, and general levels of freight traffic. While the existing infrastructure is adequate for freight operations, there are physical limitations (e.g., limited space within/adjacent to rail yards and bridge crossings) that may present a challenge to operating passenger trains on schedule.

Furthermore, since the suspension of Amtrak service in 2005, Congress has enacted Section 213 of the PRIIA (49 U.S.C. § 24308[f]). Section 213 authorizes the STB to investigate, among other things, intercity passenger train delays. In July 2016, the STB issued a final rule specifying the formula for calculating on-time performance under Section 213. The Association of American Railroads (AAR), together with several freight railroads, have challenged this rulemaking in court, and the dispute is currently pending before the U.S. Circuit Court of Appeals for the Eighth Circuit.

Due to the large territory reviewed in this analysis, train volumes vary dramatically. Between New Orleans and Mobile, CSX operates approximately 11 trains per day, excluding local traffic. The volume is made up of unscheduled and scheduled merchandise traffic (due to handoff between railroads), unscheduled unit trains, and several intermodal trains. Between Mobile and Baldwin, FL, 7 to 13 trains per day operate, primarily unit trains and merchandise traffic. The total daily train volume in the vicinity of Jacksonville station is approximately 39 trains per day, the majority of which are intermodal trains.

4.5.2.2 ASSESSMENT OF INFRASTRUCTURE IMPROVEMENTS

Identifying the rail infrastructure improvements for restoring passenger rail service was an iterative process and is described below.

CSX MODELING ASSESSMENT

To identify the infrastructure improvements to support the restoration of passenger service over the 724 miles of CSX-hosted track, CSX, at FRA's direction and with support from the GCWG, engaged a consulting firm, HDR, Inc., to perform rail service modeling. The Rail Traffic Controller (RTC) model was used to forecast future shared freight and passenger operations, estimate the infrastructure required to operate safely and reliably over the route, and test proposed train schedules. The RTC model is a tool to assess the rail infrastructure necessary to accommodate various levels of service. The full report of the CSX/HDR RTC results is provided in Appendix K.

The outcome of this initial effort identified more than $2.3 billion in infrastructure improvements to support the passenger service, including lengthening existing passing sidings throughout the route, installing new tracks and yard improvements, and other projects. However, even with the addition of these projects, the modeling suggested that service may not meet the 80% threshold for passenger on-time performance. CSX's analysis estimates an end-point on-time performance of 67% for the New Orleans to Orlando service and 75% for the New Orleans to Mobile service.

REVIEW & REFINEMENT OF INITIAL CSX RECOMMENDATIONS

Due to the scope and cost of the initial list of infrastructure improvements developed by CSX, the other members of the GCWG found them to be disproportionate to the level of proposed passenger service, and subsequently the GCWG Technical Group was formed to conduct additional technical reviews. As a result, the Technical Group held meetings in October and December 2016. The meeting participants reviewed key infrastructure needs and developed next steps for resolving outstanding issues. The key areas along the CSX route discussed included: Gentilly Yard (New Orleans) and adding capacity through this area; the installation of a second track in the Pascagoula Yard area; improvements to Sibert Yard (Mobile) to accommodate GCWG members' interest in having the state-supported corridor train terminate in Atmore, AL; PTC signal improvements; possible station relocation in Jacksonville; selected track upgrades to permit higher operating speeds; the construction of new sidings and extensions of existing sidings to 15,000 feet to provide improved freight operations flexibility; and other projects. CSX then conducted a site visit and more closely examined the options, focusing on a minimum set of improvements to restore passenger service without constraints of a pre-determined schedule or service frequencies. It was discussed that the schedules would be adjusted after additional analysis was completed taking the infrastructure into account. CSX presented a revised list of improvements at a GCWG Technical Group meeting on February 8, 2017. CSX's revised cost estimate for improvements including the New Orleans to Orlando route is approximately $780 million. The New Orleans to Atmore, AL route cost estimate is approximately $515 million; if the corridor train terminates in Mobile, CSX's cost estimate is approximately $424 million for that segment of the corridor. On-time performance analysis was not performed for this revised suite of projects. Additional discussions, modeling, and negotiations amongst the stakeholders are needed to further advance the reduce scope of improvements.

For both the initial and revised cost estimates, CSX developed the order-of-magnitude capital costs as follows:

- CSX took a "Program" approach given the number of projects required, and thus the individual project costs were not broken down as the estimate confidence was based on the average project cost within the program.
- CSX applied historical costs based on CSX's extensive track and signal construction knowledge.
- Costs are in 2016 dollars and do not account for escalation to the time period when construction would occur.
- Contingency ranged from 25-35% based on historical risks as identified by different scopes of work.
- The estimates include property acquisition and environmental permitting/mitigation.
- Costs for the program were compared to the highly successful and recent North Carolina DOT Piedmont Improvement Program (PIP) and were relatively close on a per mile basis ($3-million per mile for the PIP and $1 million per mile for the revised Gulf Coast proposal).

However, within a couple of months after completing the reduced scope and estimate, CSX determined it is not valid and insists that their $2.3 billion proposal is necessary to support passenger service. CSX believes that the most accurate analysis of what would be required to add modified Amtrak service described in this report is the initial modeling authorized and

funded by FRA and conducted by HDR with CSX as the intermediary. It is CSX's position that if Amtrak wishes to add modified passenger service along the Gulf Coast, the appropriate next step is for it to initiate CSX's planning process with a formal notice to CSX so that the two parties, and ultimately the STB, can establish a path forward.

AMTRAK RECOMMENDATIONS

Amtrak has identified recommended improvements for restoring service, which is supported by the SRC. While recognizing the benefits of capital improvements, Amtrak believes the only necessary improvement to CSX's line is the installation of PTC, if it is confirmed that the sole presence of passenger service warrants it, on some or all, of the segment between Flomaton, AL and Jacksonville, FL. PTC was discussed in Section 3.1.2.1, and this matter will require further review.

Amtrak recommends that the priority should be restoring the maximum allowable speeds (MAS) on the corridor to their 1999 levels. Since 1999, CSX has significantly reduced passenger train speeds along the route. In total, these and other speed reductions add approximately 80 minutes to the running time between New Orleans and Jacksonville, versus when Amtrak last operated on the route. See Table 3 to compare the service running times and average speeds for 1999, 2005, and the schedule proposed in 2015.

Amtrak has recognized the need to work with CSX to jointly assess intercity passenger rail service restoration and reach an agreement on the equitable distribution of costs for improvements to increase passenger service operating speed levels.

In terms of capacity improvements, Amtrak supports a phased approach after service is restored. Initial phases would include improvements that provide routes around major rail yards to increase speed and minimize risk of delays and provide flexibility for meets between opposing Amtrak trains. Subsequent phases would involve improvements that would facilitate meets and overtakes between Amtrak and freight trains. After Gulf Coast service is restored, the process of identifying exact infrastructure improvements would involve a more in-depth review of the existing infrastructure and be informed by actual experience. See Amtrak's November 10, 2016 letter to FRA in Appendix A for more details on their recommendation.

FRA EVALUATION

Following the February 8, 2017 Technical Group meeting, FRA, Chair of the GCWG, took action, independent of the HDR modeling analysis, to identify the infrastructure improvements that FRA considered necessary for passenger rail service. In particular, service between New Orleans and Mobile was considered crucial to the time competitiveness of a state-supported day train between the two cities. FRA identified improvements by reviewing and analyzing CSX's track charts, outputs from CSX's model that shows the freight activity along the corridor (i.e., string line diagrams), and recent aerial photos of the corridor.

Improvements identified for CSX's infrastructure were divided into two segments:

- New Orleans to Mobile: This segment would host two daily trains in each direction—a long-distance train operating between New Orleans and Orlando, plus a state-supported train operating between New Orleans and Mobile; and
- Mobile to Orlando: This segment would host only the daily long-distance train operating between New Orleans and Orlando.

4.5.2.3 FRA IDENTIFIED IMPROVEMENTS

This section outlines the improvements FRA identified for enhancing the operations of passenger trains on the corridor without unreasonably impairing freight operations. Aside from the passenger station related improvements, most of the proposed improvements for the restoration of passenger service from New Orleans to Orlando will benefit both the freight operations and the proposed passenger service. Improvements including, but not limited to, additional yard bypass tracks, improvements to passing sidings, and addition of higher speed turnouts to existing siding tracks, will help the rail freight services as well as accommodate the passenger service.

Developing this list into an implementation plan that finalizes how the proposed improvements will be advanced will require additional operations analysis and discussions among CSX, Amtrak, and the SRC. Where appropriate, the locations of proposed improvements are noted by railroad milepost (MP) and city location, and are shown on the maps in Figure 5. For additional context, see Appendix L.

PASSING SIDINGS

The Gulf Coast Corridor is largely a single track railroad. Adding passing sidings will allow trains traveling in opposite directions to pass one another or allow a faster train, such as a passenger train, to overtake and pass a slower train.

Many of the passing sidings on the Gulf Coast Corridor require upgrading for one or more of the following reasons:

- Siding is too short to accommodate most freight trains;
- Location of sidings is based on current freight operations, not on additional passenger service;
- Small turnouts leading to a siding significantly reduce operating speeds;
- Siding is not signaled, restricting speed to 15 mph; and
- Siding contains a highway grade crossing, which restricts the ability to stop long trains in the siding.

Identified Improvements:

- MP 780.4.4 to MP 781.9, Lake Catherine, LA: Replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit high speeds.
- MP 766.3 to MP 768.1, Magnolia Ridge, MS: Replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit higher speeds.
- MP 764.2, East of Ansley, MS: Install new 10,000-foot passing siding that will also allow switching of local industry without blocking the main line.
- MP 745.1 to MP 746.9, White Harbor, MS: Re-align and extend siding, and replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit higher speeds.
- MP 730.3 to MP 731.9, Beauvoir, MS: Replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit higher speeds. Also includes closing of Iris Street crossing in middle of siding.
- MP 709.9 to MP 711.4, Gautier, MS: Replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit higher speeds.
- MP 699.4 to MP 701.2, Orange Grove, MS: Replace No. 15 turnouts with No. 20 turnouts,

modify signals, and upgrade track to permit higher speeds.

- MP 685.6 to MP 687.4, St. Elmo, AL: Replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit higher speeds.
- MP 669.7 to MP 671.8, Mobile, AL: Replace No. 15 turnouts with No. 20 turnouts, modify signals, and upgrade track to permit higher speeds.

GRADE CROSSINGS

Existing public highway grade crossings in the corridor are equipped with different types of protection. Many are protected by flashing lights and/or gates that are automatically activated by the approach of a train. Private roads have only warning signs (crossbucks) or standard stop signs, relying on the motorist to watch for the approach of a train. Grade crossings are a source of numerous concerns:

- Crashes: Motorists can ignore flashing lights, drive around gates, or fail to stop or yield to an oncoming train, resulting in a collision between a vehicle and a train that may cause injuries and/or fatalities, damage to vehicles and trains, damage to infrastructure, and extensive delays to trains.
- Operations: To avoid blocking a highway grade crossing for extended periods of time, trains may restrict operations, such as switching and occupying sidings that have grade crossings.
- Maintenance and Inspection: Crossing protections need periodic inspection and maintenance.
- Ride Quality: A sudden change in track condition at grade crossings can often be felt by passengers on trains traveling at higher speeds.
- Speed Restrictions: Restricting the speed of trains through grade crossings may be necessary or may be requested by the local municipality.

The Gulf Coast Corridor includes a large number of grade crossings. Some have a history of frequent accidents, are closely spaced, and/or restrict switching operations and use of sing tracks. Proposed improvements will require proper coordination with the respective State Department of Transportation and local jurisdiction.

Identified Improvements:

- MP. 799.3, New Orleans, LA: Remove crossing at Old Gentilly Road, which could improve switching of Gentilly Yard and reduce blockage of main track by switching operations when combined with additional track capacity.
- MP 795.2, New Orleans, LA: Remove Michoud Boulevard grade crossing. This will provide CSX with an additional length of track to park freight trains, allowing passage of passenger trains on main track.
- West of Bay St. Louis: Remove two grade crossings to allow use of second track as passing track.
- West of Gulfport through Biloxi: Out of 14 crossings in a 20-mile stretch, remove three and upgrade warning signals at two others to potentially allow removal of voluntary 45 mph speed restriction, subject to further study by CSX. FRA will need to coordinate an onsite grade crossing diagnostic team for the two locations slated to be upgraded. Team members should include (but not be limited to) state and local officials, the railroad and its signal consultants, emergency personnel, and any other stakeholders.
- Mobile: Close three lightly used and closely spaced crossings to improve operational

flexibility.

YARD BYPASS TRACKS

Yards are used for assembling and disassembling trains, and sorting and storing of rail cars. They may also have facilities for servicing and fueling locomotives, minor car repair, and changing of crews. While most yard facilities are separate from main tracks, they can impact traffic on main tracks by trains pulling into and out of the yard, and in some locations, due to site limitations, require using main tracks for assembling and disassembling trains and/or for pushing and pulling strings of cars to and from yard tracks.

Operations at Gentilly Yard on the east side of New Orleans, Bayou Cassotte Yard in Pascagoula, and Sibert Yard in Mobile frequently block main tracks for extended periods, which would impede the passage of passenger trains.

Identified Improvements:

- Gentilly Yard in New Orleans: Construct a new, fully signaled bypass track around Gentilly Yard in New Orleans for passenger trains on the north side of the existing main line for approximately two miles with No. 20 turnouts at each end.
- Bayou Cassotte Yard in Pascagoula: Install approximately 21,000 feet of fully signaled passing track with No. 20 turnouts to allow passenger trains to bypass freight trains stopped for switching on the main track. As of March 2017, the Port of Pascagoula is working on a TIGER 2013 funded project that includes rail improvements (i.e., new rail track) in the same vicinity as this proposed passing track, east of the yard. Although construction has not started yet, CSX and Amtrak will need to coordinate with the Port to see if design modifications can be made so both projects can be built to meet the needs of each entity.

INTERLOCKING IMPROVEMENTS

Interlockings are locations where there are remotely controlled turnouts, crossovers, diamond crossings, and other special track work that is fully signalized. The interlocking primarily assists with moving trains to different tracks.

Identified Improvements:

- Gulfport, MS: Revise the interlocking where KCS trains cross CSX track to give CSX priority control for expediting passenger trains.
- Theodore, AL: Replace hand thrown turnouts with interlocked remote control powered turnouts to expedite freight movements to and from the Theodore Industrial track, reducing freight train occupancy time on the main track.
- Mobile, AL: Interlock and remote control the interlocking where CN trains cross CSX track to give CSX priority control for expediting passenger trains.

MOVABLE BRIDGES

Movable bridges, whose jurisdiction is under the U.S. Coast Guard (USCG), are those that do not have enough clearance above the water to allow passage of many types of boats. Thus, they must be opened by raising or swinging out of the way to allow passage of marine vessels.

To prepare for any potential challenges with any of the bridges' open/close cycle time, the USCG described their drawbridge operating regulation procedure for requesting modifications to bridge movements for train crossings in an October 3, 2016 letter to Senator Roger Wicker, see

Appendix M. With an understanding that the modification process is not guaranteed, this topic will need to be further explored by some of the GCWG members for the restoration of passenger service.

FRA's only recommendation for the moveable bridges is concerning the miter rails. When a movable bridge closes, it must be locked in position with the rails on the movable part of the bridge precisely aligned with the rails on the fixed part of the bridge. To ensure proper alignment is maintained, special miter rails are required. The type of miter rails impacts the allowable speed of trains. The type of miter rail used at most of the CSX bridges currently restricts train speeds.

Identified Improvements:

Upgrade to the miter rails and perform a structural analysis to potentially permit faster speeds at the following movable bridges:

- MP 787.3, Chef Menteur
- MP 775.3, Rigolets
- MP 768.8, Pearl River
- MP 753.0, Bay St. Louis
- MP 724.4, Biloxi Bay
- MP 706.8, Pascagoula River

IDENTIFIED (PROPOSED) NEW STATIONS - FOR FURTHER CONSIDERATION

As part of the Service Level for Ongoing Operations category of investments, FRA recommends that Amtrak and the cities of Mobile, AL and Jacksonville, FL consider the addition of two new stations as part of a long-term strategy to help encourage additional ridership. The basis for the recommendation is described further within each city's section below. The planning and design of new stations would need to follow the respective city's land development process as well as applicable state and federal regulations. In addition, new stations are considered a modification of service under the Amtrak-CSX contract, requiring a joint planning process between the two parties.

Proposed Suburban Station West of Mobile:

To improve access to the passenger service from suburban points north, northwest, and southwest of Mobile, FRA recommends that the City of Mobile consider a park and ride station with convenient highway access. This station would be in addition to restoring the downtown Mobile station, and it would eliminate the need for suburban passengers to drive 6-10 miles east to that station in order to travel west on the train. The proposed location is a site at the intersection of the railroad with Highway Route 193, which passes over the railroad. The site is near to full interchanges with I-10 and US 90, with an existing frontage road providing access to the site. The station would have a 300-foot platform adjacent to the existing main track, plus parking for 150 cars. On other passenger routes around the U.S., properly located suburban stations (a.k.a., beltway stations) have attracted ridership beyond what was expected in the planning stages.

Proposed Additional Jacksonville Station:

The existing Jacksonville station is located north of a direct route for a train traveling between New Orleans and Orlando. To serve this station, the train would have to make a 3-mile detour

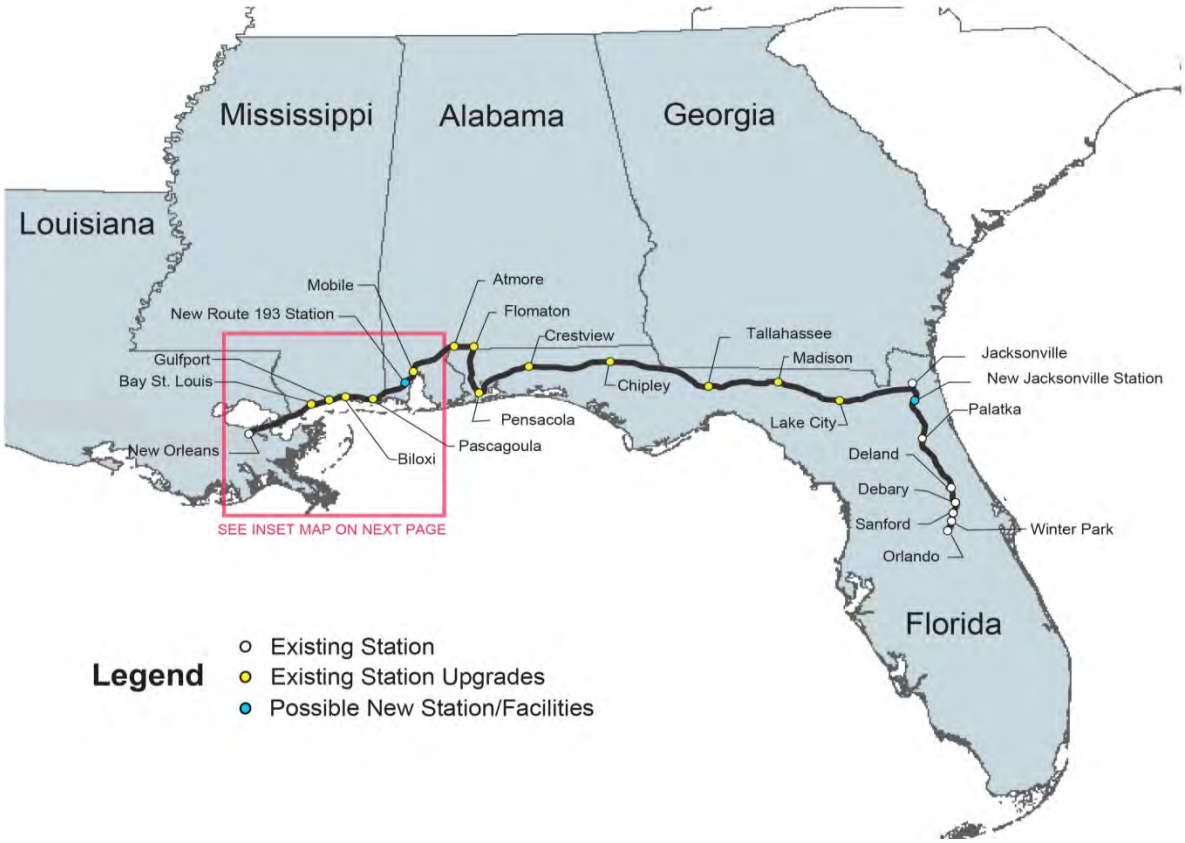
through a very congested freight switching area and reverse direction on a wye track with a backup move. The detour and backup move is estimated to require 23 additional minutes of schedule time and would likely be subject to additional delays due to freight train activity.

FRA recommends that the City of Jacksonville consider an additional station that could be located on the southwest side of Jacksonville. The new station would improve access to some suburban areas and could also be served by existing Amtrak trains. Furthermore, the station would incorporate a simple platform and canopy with vehicular access and parking, and is not intended to replace the existing Jacksonville station, which would require more extensive facilities.

MOBILE STATION TRACK

A daily round trip train operating from New Orleans to Mobile will need a place to park in Mobile during the middle of the day. A 1,000-foot track on the west side of the existing Mobile station platform and connected to the main track with a fully signaled and interlocked No. 10 turnout is proposed.

Figure 5 – Maps of FRA's Identified Improvements



IMPROVEMENTS REQUIRING FURTHER CONSIDERATION:

PTC and Signal Systems:

Based on the information provided in Section 3.1.2.1, CSX and Amtrak will need to further assess the traffic levels, precise volume of poison- or toxic-by-inhalation hazardous materials transported over each territory along the corridor, and precise beginning and end points where passenger service would be provided for a final determination on the needs and costs for PTC and any associated signal system installation, in accordance with federal law. Once the specific passenger service beginning and end points have been determined, Amtrak and CSX can detail the PTC project needs and submit to FRA, for review and approval, a request for amendment to CSX's PTC Implementation Plan, as explained in Section 3.1.2.1.

The total cost for fully implementing a PTC system on the Gulf Coast Corridor, including costs for PTC system installation, deployment, operation, and ongoing maintenance, is not yet known. PTC installation costs are very specific to each territory; as such, more detailed planning and design work is needed to develop an estimate for the Gulf Coast route. An initial projected cost range based on the experience of other railroads across the country shows that installing PTC could cost between $200,000 and $850,000 per track mile where PTC is required. The exact cost per mile is highly dependent upon many factors, including, but not limited to, the amount of work required to bring the supporting signaling infrastructure to an adequate state of

repair and/or installation of a supporting signal system to support the proposed method of operations, which has not been determined yet. As mentioned in Section 3.1.2 and shown in Figure 2, there is no signal system between Flomaton, AL and Tallahassee, FL.

Amtrak and CSX also provided preliminary PTC installation cost estimates during the process of preparing this Report. Amtrak's preliminary PTC installation cost estimate is $50 million, and it has indicated the AAR's industry average is $170,000 per mile, which includes costs for research and development and equipping locomotives with a PTC system. Furthermore, CSX provided a $93 million preliminary estimate for the cost of installing a PTC system, including signal upgrades. The varying cost estimates are likely based on PTC installation projects that do not require the installation of a base signal system because it already exists.

4.5.2.4 FRA IDENTIFIED IMPROVEMENTS FOR CSX LINE AND ORDER OF MAGNITUDE CAPITAL COSTS

For the New Orleans to Mobile daily state-supported train and the New Orleans to Orlando daily long-distance train, FRA identified infrastructure improvements for the CSX-owned line at two levels to illustrate the differences in capital needs and costs: 1) Minimum needed for passenger rail service; and 2) Service level for ongoing operations. The infrastructure improvements comprising each level and their estimated costs are shown in Table 5.

MINIMUM NEEDED FOR PASSENGER RAIL SERVICE

These improvements are primarily comprised of station improvements that are needed to restore passenger service. This investment level would support the long-distance train only since the proposed restoration of the long-distance service is very similar to the suspended *Sunset Limited* operations between New Orleans, LA and Orlando, FL.

SERVICE LEVEL FOR ONGOING OPERATIONS

These improvements include the addition of signals, larger turnouts, and track upgrades for increased speeds in and out of passing tracks in order to improve overall capacity and expedite all train movements, installation of new miter rails on moveable bridges, grade crossing improvements, yard improvements, and other projects. These improvements are intended to enhance the reliability and reduce the trip time of passenger trains. The effectiveness of the improvements for on-time performance has not been validated as part of this Report and is recommended as a next step. Moreover, these improvements are targeted to support the addition of the state-supported train as it would operate during the daytime (also based on the schedule in Amtrak's 2015 report) when freight traffic between New Orleans and Mobile is higher.

The order-of-magnitude capital costs incorporated the following list of assumptions:

- Design and construction management (CM) costs were each calculated as percentages of the program subtotal (10% and 5%, respectively).
- Unallocated Contingency of 35% was included.
- Costs are in 2016 dollars and do not account for escalation to the time period when construction would occur.
- For grade crossing closures, it was assumed that in all cases the "most reasonable" approach would be taken, recognizing that there may be local opposition to a crossing closure.
- The ownership of right-of-way that may be required to implement the improvements was not considered, and real estate/property acquisition costs have not been included.

- The CSX Timetable speed restrictions (via the Train Performance Calculator output) were used to determine track class and crossing systems/software, and to provide backup for other assumptions. The majority of the main line track was determined to be Class 4 track (60 mph max speed for freight, 80 mph max speed for passenger); therefore, no improvements are included.
- It was assumed that track could be upgraded from Class 2 track (25 mph max freight, 30 mph max passenger) to Class 3 track (40 mph max freight, 60 mph max passenger) on many existing sidings by making improvements rather than replacing the track structure (for a much lower cost). Actual site surveys may reveal that track may, indeed, need to be replaced.
- It was assumed that all environmental, National Environmental Policy Act (NEPA), and related clearances can be obtained, but this may be difficult with some of the work that is required, particularly in the wetland regions. The cost estimates do not include any environmental or hazardous material removal or mitigation costs.

The capital needs for each line segment (New Orleans to Mobile, and Mobile to Orlando) and their associated order-of-magnitude capital cost are summarized and provided in Table 5. These are initial cost estimates; preliminary engineering and design is needed for more accurate and detailed cost estimates. Supporting capital cost documentation for Table 5 is provided in Appendix L.

Table 5 – Capital Cost Summary - FRA's Identified Improvements

Costs shown are in 2016 dollars.

Project Element	New Orleans to Mobile		Mobile to Orlando*		Subtotals		Total
	Minimum Needed for Passenger Rail Service	Service Level for Ongoing Operations	Minimum Needed for Passenger Rail Service**	Service Level for Ongoing Operations	Minimum Needed for Passenger Rail Service	Service Level for Ongoing Operations	
Planning & Project Development							$5,000,000
Siding Improvements		$45,880,000				$45,880,000	$45,880,000
Grade Crossings		$2,604,000				$2,604,000	$2,604,000
Yard Bypass Tracks		$28,036,000				$28,036,000	$28,036,000
Interlocking Improvements		$6,892,000				$6,892,000	$6,892,000
Movable Bridge Miter Rails		$7,277,000				$7,277,000	$7,277,000
Upgrade Existing Stations	$3,478,000		$4,342,000		$7,820,000		$7,820,000
New Station W. of Mobile		$4,192,000				$4,192,000	$4,192,000
Mobile Station Track	$1,898,000				$1,898,000		$1,898,000
Jacksonville Terminal				$8,073,000		$8,073,000	$8,073,000
Totals**	**$5,376,000**	**$94,881,000**	**$4,342,000**	**$8,073,000**	**$9,718,000**	**$102,954,000**	**$117,672,000**

** Infrastructure improvements end in Deland, FL*

***Positive Train Control (PTC) & base signal system installation needs and costs from Flomaton, AL to Jacksonville, FL and Flomaton, AL to Tallahassee, FL, respectively, have not been determined by the time this report was finalized. The installation of PTC could significantly increase the service restoration costs.*

5 IMPLEMENTATION

5.1 FRA IDENTIFIED PROGRAM OF IMPROVEMENTS

FRA's identified program of improvements for consideration and associated capital costs are described below. The O&M costs associated with the state-supported, corridor train, and the long-distance train, are described as well. The O&M costs are of particular significance because Amtrak projects the two services to yield annual incremental operating losses; both federal and/or non-federal (state and/or local) funding sources will need to be identified prior to the restoration of passenger service.

5.1.1 OPERATIONS AND MAINTENANCE (O&M) COSTS

Amtrak's 2015 report contains estimated passenger revenue and O&M costs[10] for the service along the entire route from New Orleans to Orlando (Alternative A1 in Section 4.2.2, without the additional round trip between New Orleans and Mobile) to yield an annual incremental operating loss of $5.48 million. If operated as a standalone service, the operation between New Orleans and Mobile (Alternative A1 subtracted from Alternative A in Table 2) would yield an annual incremental operating loss of $4 million, due primarily to the reduction in passenger volume and other sources of revenue. The combined service (Alternative A in Section 4.2.1) would yield an annual incremental operating loss of $9.49 million.

Amtrak's estimated revenues and O&M costs for restored passenger rail service are based on the corridor's 1999 operating speeds, which were faster than the rail infrastructure currently allows, and do not incorporate any rail infrastructure improvements. As such, additional analysis of the revenues and O&M costs is recommended.

In addition, ongoing capital lifecycle costs, including PTC system maintenance, have not been estimated as part of the evaluation for this Report. Lifecycle costs should be assessed as a next step when more detailed planning efforts are underway.

5.1.2 SUMMARY OF STATION, INFRASTRUCTURE & OTHER IMPROVEMENT COSTS

FRA's recommended capital improvements for restoring passenger rail service are discussed in Sections 4.5.2.3 and 4.5.2.4. The suggested approach would be to first implement the minimum improvements needed to restore service, to be followed by the service level for ongoing operations improvements as additional funding becomes available. The total estimated amount of capital investment for the recommended improvements that will be required is $117.67 million in 2016 dollars, and includes the elements shown in Table 6.

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[10] Assumptions from 2015 Amtrak report: the financial forecasts based in the evaluation reflect updated base cost data from more recent system-wide cost experience, and identifies and prices state-supported service under the PRIIA 209 methodology. Methodology: In order to forecast the operating results for the proposed Gulf Coast services, including PRIIA 209 methodology pricing, Amtrak Market Research and Amtrak Finance relied on modeling processes consistent with those used for studies of other service changes throughout the Amtrak system.

Table 6 – Capital Cost Summary by Phased Implementation

Project Element	Minimum needed for passenger rail service *	Service level for ongoing operations	TOTAL
Planning and Project Development	$ 5,000,000		$ 5,000,000
Station Improvements	$ 7,820,000		$ 7,820,000
New Station/Terminal	$ 1,898,000	$ 12,265,000	$ 14,163,000
Infrastructure Improvements		$ 90,689,000	$ 90,689,000
TOTAL	$ 14,718,000	$102,954,000	$ 117,672,000

** Positive Train Control (PTC) & base signal system installation needs and costs from Flomaton, AL to Jacksonville, FL and Flomaton, AL to Tallahassee, FL, respectively, have not been determined by the time this report was finalized. The installation of PTC could significantly increase the service restoration costs.*

5.2 FUNDING

A key challenge to implementing the restored passenger rail service will be securing the necessary funds for both capital improvements and sustained financial support to cover projected operating losses. At this time, specific source(s) of funds have not been identified to cover the projected operating losses identified above.

An estimate of capital funding needs to implement the identified improvements over the course of the next five years has been projected and is shown in Table 7 below.

Table 7 – Five-Year Funding Plan for FRA's Identified Improvements

Costs shown are in 2016 dollars. For planning purposes, FRA assumes a federal share of 80% and non-federal share of 20%.

	Planning and Project Development		Minimum Needed for Passenger Rail Service*				Service Level for Ongoing Operations					
			Year 1		Year 2		Year 3		Year 4		Year 5	
Project Element	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal	Federal	Non-Federal
Planning & Project Development	$4,000,000	$1,000,000										
Stations			$3,887,200	$971,800	$3,887,200	$971,800	$3,270,667	$817,667	$3,270,667	$817,667	$3,270,667	$817,667
Infrastructure & New Stations							$24,183,733	$6,045,933	$24,183,733	$6,045,933	$24,183,733	$6,045,933
Annual Totals	**$4,000,000**	**$1,000,000**	**$3,887,200**	**$971,800**	**$3,887,200**	**$971,800**	**$27,454,400**	**$6,863,600**	**$27,454,400**	**$6,863,600**	**$27,454,400**	**$6,863,600**

** Positive Train Control (PTC) & base signal system installation needs and costs from Flomaton, AL to Jacksonville, FL and Flomaton, AL to Tallahassee, FL, respectively, have not been determined by the time this report was finalized. The installation of PTC could significantly increase the service restoration costs.*

The following section outlines potential or existing sources of funding that can be considered to support the restoration of passenger rail service.

5.2.1 LOCAL FUNDING

5.2.1.1 LOCAL MATCH TO FRA GRANTS

Several communities along the suspended service route in Louisiana, Mississippi and Alabama will invest local dollars to match federal funds to complete a variety of planning studies and construction projects. The SRC and FRA are using the $2.45 million in FY 2006 Gulf Coast High Speed Rail Corridor earmark funds to set up railroad planning and development grants. The grant will require a 50% cash match, and the SRC has received commitments from the

potential grant recipients to supply the full match for their respective project(s).

5.2.1.2 OTHER LOCAL FUNDING INITIATIVES

The City of Live Oak, FL does not currently have a passenger station, but has expressed strong support for one. The Suwanee County Economic Development Office, a GCWG member, has identified $2.5 million that is available for potential platform and passenger station facilities.

5.2.1.3 BP OIL SPILL SETTLEMENT PROCEEDS

In April 2010, BP's offshore oil rig *Deepwater Horizon* (off the Louisiana Coast) exploded, sending millions of gallons of oil into the Gulf of Mexico. Following a number of lawsuits, a $20 billion settlement was reached, providing funds to the five affected Gulf Coast states (Texas, Louisiana, Mississippi, Alabama and Florida) and localities to address environmental damage and other claims. The spill restoration funding is accessed through multiple sources, each having its own requirements and limitations on use of the monies. Only two sources offer opportunities for possible use in restoration and resilience investments, such as the restoration of passenger rail service. The sources are the Gulf states' economic damages settlement awards and certain funds under the Revived Economies of the Gulf Coast States Act (RESTORE Act) (included in the settlement).

Although no specific amount of funding has been identified from the settlement proceeds available to the Gulf States that might be directed toward possible eligible uses to support the proposed activities in this Report, this remains a viable source for potential future funding.

5.2.2 THE FAST ACT

The recently passed federal surface transportation authorization, the FAST Act, includes a passenger rail title. The passenger rail programs are not guaranteed to be funded at the authorized funding levels included in the Act, in contrast to most highway and transit programs. Rather, these rail programs must rely on the federal appropriations process to receive annual funds, if any. The FY 2017 appropriations act provides some passenger rail funding available as grants to states and local governments, which is the first time since 2010 that Congress has provided these entities with passenger rail funding. These grant programs will be awarded on a competitive basis according to the statutory requirements.

5.2.2.1 CONSOLIDATED RAIL INFRASTRUCTURE AND SAFETY IMPROVEMENTS (CRISI) PROGRAM

The CRISI program's (Section 11301 of the FAST Act) purpose is to improve the safety, efficiency, and reliability of passenger and freight rail systems. This program did receive $68 million in the FY 2017 appropriations act.

5.2.2.2 RESTORATION AND ENHANCEMENT (REG) PROGRAM

The REG program (Section 11303 of the FAST Act) provides up to six operating assistance grants to support initiated, restored, or enhanced intercity passenger rail transportation. This program received $5 million for operating costs in the FY 2017 appropriations act.

5.2.2.3 FASTLANE GRANTS

The FASTLANE program (Section 1105 of the FAST Act) authorizes funding for critical freight and highway projects across the country. Projects are selected by the Secretary of Transportation on a competitive basis. The program limits funding to multi-modal non-freight highway projects

to $500 million over the life of the FAST Act, which expires in 2021. These funds are guaranteed on an annual basis, unlike passenger rail programs.

5.2.3 TIGER GRANTS

TIGER grants are another federal funding source that the SRC and the Gulf States are familiar with through past applications. To date, roughly $500 million has been appropriated annually for capital investments in surface transportation infrastructure of all sorts.

5.2.4 HIGHWAY-RAIL GRADE CROSSINGS

The Federal Highway Administration (FHWA) administers the Railway-Highway Crossings (Section 130) Program. According to FHWA's website, "[the] Program provides funds for the elimination of hazards at railway-highway crossings. The Section 130 Program has been correlated with a significant decrease in fatalities at railway-highway grade crossings." The Program funds are apportioned to states by formula, and serve as a potential funding source.

The following section is a summary of the Alabama DOT's and Louisiana Department of Transportation & Development's (DOTD) Section 130 Program.

5.2.4.1 ALABAMA DOT

The Alabama DOT's (ALDOT) Section 130 Program is a 100% federally funded program dedicated to reducing crashes, injuries and deaths at highway-rail grade crossings. The Section 130 Program initiates railroad safety projects that provide for the construction and installation of active warning devices at high-risk rail-highway grade crossing locations throughout the State of Alabama. In FY 2016, the ALDOT initiated 19 projects at an estimated cost of $5.8 million.

Alabama has approximately 2,748 public highway-rail grade crossings. Forty-eight percent of these grade crossings have active warning devices (signals, bells, and gates), and the remaining rail-highway crossings are equipped with passive warning devices.

The ALDOT uses the U.S. DOT/AAR Accident Prediction Formula Index (Index) to establish the potential risk of a crossing and to determine which rail-highway grade crossings to select for safety improvements using Section 130 funds. This Index is used nationally by several states to rank rail-highway crossings. On average, Alabama experiences about 70 crashes between trains and vehicles each year, resulting in 35 injuries and seven to eight fatalities.

On an annual basis, ALDOT selects the top 20 highway-rail grade crossing locations from the U.S. DOT/AAR Accident Prediction Formula Index. The scope of work generally consists of installing active and passive warning devices at each highway-rail grade crossing location listed. Once the Phase Document is approved by FHWA, ALDOT will initiate, process, and complete projects at each location to install warning devices.

5.2.4.2 LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT (DOTD)

Louisiana has approximately 2,800 public at-grade crossings (open to the public and road approaches are maintained by the DOTD, Parish [similar to counties] or a municipality). Over 50% of these Louisiana public at-grade crossings have railroad active warning devices (railroad flashing lights with or without gates).

Louisiana DOTD has a Railroad Safety Program to fund about $8 million of railroad safety projects each year. This uses the 130 Program funds and other federal funds to accomplish this effort. Louisiana DOTD uses the FRA Accident Prediction System (APS) to initially rate

crossings based on inventory data. The highest APS crossings (the top 200 plus a few over 200), and those crossings with at least two collisions within five years per FRA collision data, go through an additional review by DOTD railroad safety personnel to determine proposed railroad safety projects. Some of the recommended railroad safety projects will include multiple crossings to be upgraded.

5.2.5 RRIF/TIFIA PROGRAMS

The U.S. Department of Transportation's Build America Bureau oversees innovative financing tools for the agency—such as the TIFIA and RRIF Programs, which provide low-interest loans for capital improvements to eligible borrowers who meet credit worthiness criteria. The TIFIA programs' project cost floors have been lowered to $10 million for station/transit area development/local projects in the FAST Act and may be a viable option for service restoration and eligible capital work.

5.3 NEXT STEPS

There are a number of critical next steps that will need to be addressed in order to progress the restoration of passenger rail service in the Gulf Coast Corridor within a reasonable timeframe, as discussed below.

5.3.1 VERIFY RECOMMENDED IMPROVEMENTS

CSX, Amtrak, FRA, and the SRC will need to hold collaborative meetings to verify and detail the recommended improvements. Capital improvements need to be confirmed for the New Orleans to Mobile, AL segment due to the higher volume of freight operations between these cities compared to points east. For these discussions to be productive, a certain level of conceptual engineering will need to be completed to identify fatal flaws and gain confidence in the proposed improvements.

5.3.2 CONFIRM PTC REQUIREMENTS

As previously mentioned, PTC system implementation is required on main line track where intercity or commuter rail passenger service is regularly provided, in accordance with federal law. The costs for implementing a PTC system on the tracks from Flomaton, AL to Jacksonville, FL, or any segment thereof, and equipping locomotives will need to be determined by CSX and Amtrak, if passenger service is restored. The full implementation of a PTC system could significantly increase the service restoration costs.

5.3.3 EVALUATE SAFETY AT GRADE CROSSINGS

5.3.3.1 PROPOSED GRADE CROSSING STUDY

Highway-rail grade crossing safety is an important topic for State DOTs and local communities. To evaluate grade crossing improvement needs along the Gulf Coast Corridor, local stakeholders and State DOTs should determine if a grade crossing study is needed. The study could evaluate installing active warning devices, upgrading active warning devices, improving roadway approaches (including elimination of "humpback" crossings capable of hanging up low-profile vehicles), and closing crossings.

5.3.3.2 MISSISSIPPI RAILROAD CORRIDOR WORKING GROUP

The Mississippi Railroad Corridor (MRC) Working Group is an example of a grade crossing safety effort that is underway. In 2016, the Gulf Regional Planning Commission (GRPC) formed

the MRC Working Group as an initiative under its ongoing transportation safety program in support of advancing multi-modal transportation options. The GRPC serves three counties (Hancock, Harrison and Jackson) and 12 cities of the Mississippi Gulf Coast. The MRC Working Group's efforts are funded by the GRPC's FHWA/Federal Transit Administration's MPO Planning funds and local match.

The MRC Working Group has hosted discussions focused on safety and the need for cooperation to achieve zero loss of life. The MRC Working Group has also met with CSX regarding highway grade crossing upgrades and closures. Ongoing discussions have included the CSX corridor; in particular: 1) identifying the condition of highway grade crossings across the three counties; 2) improvements to increase the safety and efficiency of the CSX rail corridor; 3) determining if safety improvements are practical and feasible; and 4) identifying resources to assist the local governments to make the safety improvements.

Furthermore, members of the MRC Working Group have noticed acceptance from the public on closing crossings. In 2017, GRPC launched an initiative to create a programmatic approach for the safety and security of the entire CSX rail corridor. Once the group becomes more established and schedules regular meetings, this initiative could expand to include the entire Gulf Coast Corridor.

5.3.4 NEPA ENVIRONMENTAL REVIEW

The infrastructure improvements recommended for the restoration of passenger rail service will require compliance with NEPA if federal funds are used. Section 102 of NEPA requires federal agencies to incorporate environmental considerations in the planning and development of new initiatives. There is a general hierarchy to the assessment of environmental impacts, beginning with consideration for a Categorical Exclusion (CATEX). Projects that do not have a significant impact can be categorically excluded from a detailed environmental analysis. If a CATEX does not apply, then an Environmental Assessment (EA) may be required. An EA discusses the need for a project, alternatives considered, and any environmental impacts that may ensue. If a project is found not to have a significant impact on the environment, a Finding of No Significant Impact is made. If the EA determines that a project will yield significant environmental impacts, then an Environmental Impact Statement (EIS) is prepared. The regulatory requirements for an EIS are more detailed and rigorous than those required for an EA.

5.3.5 EXECUTE NECESSARY AGREEMENTS

In order to operate passenger service on CSX's line from New Orleans to Deland, Amtrak must have an operating agreement with CSX. Similarly, from Deland, FL to Orlando, FL, Amtrak will need to establish an operating agreement with SunRail.

For the existing passenger stations, the legal status of leasing and ownership needs to be determined by the respective local government, Amtrak, and/or CSX. In particular, if any agreements were in place in 2005, all parties need to know if those agreements are still valid. If a new station is built or if a station is relocated, agreements also need to be established to determine ownership and leasing responsibilities.

5.3.6 APPLICATION OF POTENTIAL FUNDING

While capital costs and potential funding sources have been identified in this Report, adequate funding will be necessary for continuing the work started by the GCWG and returning passenger

rail service to the Gulf Coast Region. In addition, a stable and ongoing funding source will be required for the service's O&M costs.

5.3.6.1 REQUEST FOR FUNDING:

The short-term (years 2017-2020) items include:

- Additional planning such as modeling and project development (including NEPA/environmental studies);
- Design/Engineering;
- Rehabilitation of existing stations;
- Refurbishing of rolling stock; and
- Construction of initial capital improvements

The long-term items include:

- Construction of new stations (which will need to go through the respective city's development process and Amtrak's process); and
- Construction of ongoing capital improvements.

5.3.7 IDENTIFICATION OF REAL ESTATE REQUIREMENTS & DEVELOPMENT OPPORTUNITIES

The possible addition of one or more new stations and new infrastructure may require property acquisition and/or easements from existing property owners. Therefore, real estate needs will need to be assessed, along with the identification of associated costs. Development opportunities and public-private partnerships to construct these new facilities will also be explored.

5.3.8 OTHER RECOMMENDATIONS

5.3.8.1 EXTEND LONG-DISTANCE SERVICE TO TAMPA, FL

The possible extension of passenger rail service beyond Orlando to Tampa has been recommended for consideration. Ending the line at the existing terminus in Orlando presents several challenges for Amtrak to service trains at this location. Trains would need to turn on a wye at Stanton (8.4 miles south of Orlando), travel back north to Sanford for servicing and turning on a wye there, then return south and turn again on the wye at Stanton, and finally move north to the Orlando station to begin the trip to New Orleans, a process that would add time for the train crew. Extending the train to Tampa would encourage additional ridership while avoiding the challenging turning moves in Orlando. This alternative would have to be studied to understand the associated capital and operating costs.

5.3.8.2 ASSESSMENT OF EXTENDING STATE-SUPPORTED SERVICE TO ATMORE, AL

This Report identifies the improvements needed to support an initial state-supported service between New Orleans and Mobile. However, there is strong local support for extending the state-supported train to Atmore. This extension needs further evaluation, particularly regarding identifying improvements in the Sibert Yard (Mobile) area and any potential increase to incremental operating losses and capital costs.

6 CLOSING STATEMENT

In the more than 10 years since Hurricane Katrina struck, Gulf Coast leaders and residents have made great strides in rebuilding businesses, communities, and infrastructure that connect cities across the region. In the last five years, more than $3 billion in private funds were invested in industrial, medical, IT, and aerospace sectors.

As mentioned earlier in this Report, during the next 30 years the Gulf Coast and Florida megaregion's populations are expected to increase by 10 million and 13.8 million, respectively. For the region to harness this projected population growth, it needs a multi-modal transportation system that provides transportation alternatives.

APPENDIX D

SOUTHERN RAIL COMMISSION

May 25, 2017

Jamie Rennert
Director, Program Delivery
U.S. Department of Transportation
Federal Railroad Administration
1200 New Jersey Avenue, SE
West Building- Mail Stop 20
Washington, DC 20590

Dear Ms. Rennert:

The Southern Rail Commission (SRC), as a Congressionally appointed member of the Gulf Coast Working Group (GCWG), writes to express our gratitude for the efforts of the Federal Railroad Administration (FRA) to bring resolution over the past eighteen months in order to answer the directive of the 114th Congress. Section 11304 of Fixing America's Surface Transportation (FAST) Act directs the U.S. Department of Transportation Secretary to "convene a working group to evaluate the restoration of intercity rail passenger service in the Gulf Coast region between New Orleans, Louisiana, and Orlando, Florida," whose work includes developing "a prioritized inventory of capital projects and other actions required to restore such service and cost estimates for such projects or actions." However, we must express our deepest disappointment in the actions and statements of the CSX Railroad.

While the FRA has worked tirelessly to reach consensus through research and negotiation, CSX has demonstrated a commitment to obfuscation and deceit, which culminated with the sentiments they expressed during our May 10, 2017 meeting.[1]

From the beginning and throughout this process, SRC has maintained that the restoration and enhancement of service along the Gulf Coast should work for both freight and passenger rail interests. However, CSX has failed to reciprocate this sentiment and their actions demonstrate what can only be understood as an unwillingness to negotiate in good faith and an opposition to bringing back passenger rail service to communities along the Gulf Coast.

CSX's claim that the freight issues they have raised have not been acknowledged by the working group are patently ridiculous. The FRA and SRC have diligently worked to address the purported obstacles to restoring service that CSX identified. SRC's efforts have included working with the US Coast Guard to successfully resolve bridge access issues, resolving missing and incomplete bridge tender log data, making trips to ports and yards along the Gulf Coast to collaborate with locals identifying solutions to address access and movement concerns – all issues raised by CSX as hindering passenger rail resumption. The SRC has been and continues to be an engaged, honest and committed member of the GCWG.

In the May 10 meeting, CSX recanted a previously issued, lower estimation of costs and returned to their initial demand of $2.3 billion in infrastructure costs for the desired service, which is less than 800 miles. By comparison, CSX literature indicates its annual total infrastructure

[1] See May 10, 2017 GCWG meeting summary included as Attachment B.

expenditures, plus regulatory (including Positive Train Control) expenditures, are less than $1.5 billion for all of their 21,000 miles of track.[2] For a historical comparison, CSX signed an agreement with Amtrak in 1992 stating that the capital improvements to extend Amtrak's Sunset Limited service from New Orleans, Louisiana through Mobile, Alabama and on to Jacksonville, Florida would cost $4,067,191.[3] Following Hurricane Katrina, portions of track along this route were rebuilt and thus, their condition substantially improved, which should considerably lower costs for infrastructure improvements necessary to restore passenger rail service. SRC takes issue with CSX's $2.3 billion number in the following ways:

First, CSX denied the FRA and the GCWG – established by Congress – from seeing the full modeling or any of the underlying assumptions for the modeling used to reach this number. Even worse, CSX accepted taxpayer dollars to conduct this study yet still withheld the underlying assumptions and detailed data upon which the taxpayer funded study was based. CSX also denied FRA experts permission to inspect the rail lines in question. Recent reports concerning safety defects and other issues relative to rail conditions demand greater transparency from the railroad in general, but in particular raise concerns about where the $2.3 billion demanded by CSX will actually be spent. It is unconscionable that the American taxpayer be asked to foot the bill for improvements for which there is no evidence – save CSX's protestations – and look highly suspect upon even a cursory review.

Second, CSX stated that the railroad would restore the previous three-day per week service along the Gulf Coast route at no cost. Yet, four more trains a week would require $2.3 billion. One does not require expensive models or an engineering degree to see such a claim as absurd. This claim simply reveals CSX's intent to prevent the American people from getting passenger rail service along this route.

It is important to remember that Congress formed the GCWG to work towards restoring intercity passenger rail service in a manner that will ultimately yield competitive and high quality service, in contrast to what existed before Huricaine Katrina. CSX was well aware of this and was a willing participant in the GCWG; yet, CSX's statements in the May 10 meeting indicate disregard for any successful collaboration towards this objective.

CSX's demands for an unjustified amount of money in exchange for accommodating passenger rail service would, in effect, overturn existing law. If upheld, all freight railroads would have a financial veto over passenger rail service and could ignore 49 U.S. Code § 24308, which states:

> *"Amtrak may make an agreement with a rail carrier or regional transportation authority to use facilities of, and have services provided by, the carrier or the authority under terms on which the parties agree. … If the parties cannot agree and if the Surface Transportation Board finds it necessary to carry out this part, the Board shall –*
> *(i) order that the facilities be made available and the services provided to Amtrak; and*
> *(ii) prescribe reasonable terms and compensation for using the facilities and providing the services.*
> *When prescribing reasonable compensation…the Board shall consider quality of service as a major factor when determining whether, and the extent to which, the amount of*

[2] See Attachment A.
[3] Amtrak, CSX agreement dated April 28, 1992.

compensation shall be greater than the incremental costs of using the facilities and providing the services."

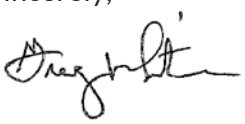
CSX's demands for $2.3 billion are nothing close to "reasonable terms and compensation" for the "incremental costs of using the facilities and providing the services" requested along the route.

The final GCWG report recommends continued coordination and collaboration among GCWG members. However, in the May 10 GCWG meeting, CSX clearly stated that their organization will not continue in any further conversations with the other stakeholders represented in the working group.

We cannot allow an unsupported, unreasonable demand by CSX to overturn long-established law and veto a passenger rail service supported by the people and leadership of the coastal south. Congress has identified this route as of high importance and interest for the public. Continued investments in our passenger rail system are vital as our society becomes increasingly mobile and we look for ways to improve access to skilled workers, jobs, and new opportunities for economic development.

We ask that our concerns be reflected in the Gulf Coast Working Group Report to Congress, and we look forward to working with Congress and FRA to enforce the law and establish passenger rail service to the communities along the Gulf Coast.

Sincerely,



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Greg White, Chairman and Alabama Commissioner

_____

John Spain, Vice-Chairman and Louisiana Commissioner

_____

Knox Ross, Secretary-Treasurer and Mississippi Commissioner

Attachment A

Capital Expenditures *(Dollars in Millions)*	Fiscal Years 2016	2015	2014
Track	$ 714	$ 866	$ 750
Bridges, Signals and Other	433	491	538
Total Infrastructure	1,147	1,357	1,288
Freight Cars	82	218	329
Capacity and Commercial Facilities	406	295	452
Regulatory (including PTC)	313	341	321
Locomotives	409	337	51
Public-Private Partnerships - net [(a)]	41	14	8
Total Property Additions	2,398	2,562	2,449
Cash paid for new assets using seller financing [(b)]	307	$ —	$ —
Total Capital Expenditures [(a)]	$ 2,705	2,562	2,449

(a) *Total capital expenditures shown above include investments related to reimbursable public-private partnerships. These partnership investments are for projects that are partially or wholly reimbursed to CSX through either government grants or other funding sources such as cash received from a property sale. These reimbursements may not be fully received in a given year; therefore the timing of receipts may differ from the timing of the investment.*

(b) *In 2016, CSX made payments related to locomotive purchases made in 2015 using seller financing of $307 million.*

The chart above was taken from CSX's 2016 Annual Report, "*How Tomorrow Moves,*" Page 52. Highlighted emphasis was added by SRC. https://www.csx.com/index.cfm/investors/annual-materials/

Attachment B

Gulf Coast Working Group

Meeting Summary
May 10, 2017

Below is a summary of the Gulf Coast Working Group's meeting on May 10, 2017, as written by the Southern Rail Commission and Transportation for America.

Attendees:

CSX	• Dave Dech, AVP Passenger Operations • Garrick Francis, AVP Federal Affairs • Will Roseborough, Director Project Management • Marco Turra • Sean Craig, Attorney
Amtrak	• Mark Murphy, Senior VP & General Manager – Long Distance Service • Kelly Cunningham, Lead Host Railroads Specialist • Morgan Connell, Lead Host Railroads Specialist • Ken Altman • Jackie Meredith-Batchelor, Attorney • Todd Stennis, Director, Government Affairs-South
Southern Rail Commission	• Greg White • Knox Ross • John Spain • John Robert Smith (advisor to the SRC, Transp. 4 America)
Florida DOT *(participating via teleconference)*	• Rickey Fitzgerald, Manager, Freight & Multimodal Operations (Rail Office) • Fred Wise, Rail Director – Florida District (HNTB consultant) • Holly Munroe
FRA	• Jamie Rennert, Director, Office of Program Delivery • Trevor Gibson, Office of Program Delivery – Program Implementation • Catherine Dobbs, Office of Program Delivery – Program Implementation • Dick Cogswell, Office of Program Delivery – Engineering & Projects Development • Marc Dixon, Office of Program Delivery – Program Implementation • Mark Hartong, Office of Safety – PTC • Devin Rouse, Office of Safety – PTC • Stephanie Anderson, Office of Chief Counsel - Safety

Meeting Summary

I. Welcome & Introductions

After a round of introductions, Jamie Rennert of FRA remarked that while the group is at the end of a milestone, the group is also at the beginning of a next phase. She noted that CSX had called for the meeting and turned the floor over to CSX to allow them to express their concerns.

II. Opening Remarks by CSX

Dave Dech, CSX, provided an overview of the challenges perceived by CSX, which included the following:

CSX believes HDR provided an unbiased third party opinion regarding infrastructure concerns, but that HDR's study seems to have been discounted. The $2.3 billion number determined by HDR would still not guarantee on-time performance. CSX made a good faith effort to pare this down to a lower number, but even then could not guarantee on-time performance.

CSX is frustrated that the $2.3 billion number is not being used as the basis, when they are the ones who will have to answer for the infrastructure along the route.

CSX noted that the previous passenger rail service never performed and struggled with on-time performance and ridership. They are concerned that we live in a different world than then. CSX believes it has all of the liability from a public standpoint. CSX is saying "I can't do this" not "I don't want to do this". Yet, if passenger rail service is restored CSX will have to explain why on-time performance is sub-standard, even though they said all along that they could not achieve it.

CSX does not intend to install PTC along this line but will have to if there is a passenger train. CSX claims Amtrak has the responsibility to pay for PTC. CSX stated that the train has a shelf life of just a few years, which calls into question if this is really where money should be spent.

CSX maintains that this is not restoration of service. The pervious service was 3-days per week and had a set schedule. CSX noted that they would be bound to restoring the service at the previous schedule, but will not volunteer to take on any additional days or difference in schedule.

CSX maintains that there is a separate process for establishing such 'new' service, which requires a letter requesting new service to be sent to CSX. Upon recipet of the letter, CSX would name the cost for infrastructure upgrades and if the passenger rail service does not agree to the cost, then STB would be the arbitrator. CSX noted that they see this request for passenger service going to STB.

III. PTC

Jamie Rennert, FRA, raised the issue of PTC mentioned by CSX as the first point of discussion. FRA representatives noted that PTC exemptions are available for this reason – PTC requirements are not meant to prevent service. There is a threshold for a limited service exemption, which could apply for this line. However, FRA does not know all of the information needed to ensure an exemption would apply. For example, if CSX's freight movements include certain toxic inhalants along this line, then it cannot be exempt from the PTC requirement.

CSX responded that PTC was forced upon the railroads by law. CSX will not seek an exemption, for fear of ending up in the news. CSX maintains that the provision of PTC is a term and condition of access, for which STB is the arbiter.

FRA noted that a decision to not install PTC would be a decision on the part of CSX, and likely not a required cost for restoring service.

IV. Modelling Study

Jamie Rennert, FRA, noted that the GCWG established a set of numbers related to cost – CSX put the cost at $2.3 billion, but walked this down to $700-$800 million, which is closer to the $117 - $200 million numbers determined by other GCWG stakeholders. She pointedly asked CSX if they would be willing to continue to work with the stakeholders of the GCWG to collaborate towards a mutually agreed on determination of cost.

Dave Dech replied no, CSX would not continue to work with the group. CSX also no longer supports the $700-$800 million number and only feels confortable with the $2.3 billion number. CSX noted "this is not how we do business with Amtrak" and that Amtrak must send them a letter of request.

CSX noted that they have zero interest in phasing the infrastructure improvements, even though the improvements are based on 20-year growth projections. CSX maintains that all infrastructure improvements, based on 20-year growth projections, must be completed before they will start the first day of service.

FRA noted that the HDR study and CSX's cost estimates were presented in a "black box." FRA does not know how CSX / HDR got to that number and does not know what assumptions were made. There has been differences in analysis and the next step would be to collaborate on the analysis.

CSX said that would be a good idea if this was public property, but it is private property. FRA noted that Amtrak has a public interest; to which CSX replied that responsibility falls on Amtrak. FRA noted that the GCWG study was intended as a cost-focused study, not a legal or statutory rights study.

CSX reinterated that the HDR study is the only true, factual analysis done, but that the number has been largely ignored. FRA noted that when they asked CSX if their staff

could accompany CSX to site-visits, CSX denied their request. CSX agreed, stating that their property is private.

SRC noted that they have worked in good faith, made visits to ports and communities along the Gulf Coast to identify solutions to what CSX has maintained as areas of issue. SRC disagreed that HDR is a true third party. SRC noted their desire from the beginning to seek a solution for passenger rail that would work for both freight and passenger interests.

V. Submitting Report to Congress

FRA asked if the group could collectively agree to continue working as a group to collectively drill down on the points of PTC and schedule, with the goal of coming closer together and with the goal of not needing to resort to going to the STB. CSX stated that they will not participate in any further meetings or conversations with the group.

FRA wrapped up the meeting with a discussion of the report due for submission to Congress. FRA is currently in final review of the report and will update the report to reflect the conversation of the May 10 meeting. After a final review at FRA, the report will be sent for review with OMB. The final report may be received in Congress as early as May 31st.

APPENDIX E

500 Water Street, J315
Jacksonville, FL 32202
Jay_Westbrook@csx.com
T: 904-359-3568

Jay S. Westbrook
Assistant Vice President
Passenger Operations

August 15, 2016

VIA E-MAIL AND
FIRST CLASS MAIL

Mr. Marc Dixon
Regional Manager – South Central
Federal Railroad Administration
Office of Railroad Policy and Development
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Dear Mr. Dixon:

We appreciate the Federal Railroad Administration's pursuit of a fact-based inquiry into the issues that would surround resumption of Amtrak passenger service from New Orleans, LA, to Orlando, FL. In that regard, we were grateful to participate in the Gulf Coast Working Group ("GCWG") efforts, including hosting the August 11 meeting where the results of HDR's capacity modeling of the corridor were shared. As there was a great deal of detail provided at the session, including about new legal requirements for service, we thought it would be helpful to recap what we heard and to share some of our perspectives about the Amtrak service under consideration.

Attributes of the Gulf Coast Corridor. As we heard at the GCWG meeting, CSXT's Gulf Coast line is comprised of 718 route miles, most of which is single track. Approximately 243 miles of the line is unsignaled, with a current maximum authorized speed of 59 mph for passenger trains, and 49 mph for freight. The line has 17 moveable bridges, and 12 of those are located in the 150 miles between New Orleans and Bay Minette, AL.

We discussed the fact that the U.S. Coast Guard has jurisdiction over the opening and closing of the moveable bridges, and the regulations are designed to ensure that vital maritime commerce is not impaired. Typically, each such bridge takes from 15 to 30 minutes to open, to allow marine traffic through, to close and to then display a proceed signal for waiting or expected trains.

We also discussed the complicated and crowded infrastructure in Mobile at CSXT's Mobile Yard, and yard capacity limits at CSXT yards in New Orleans and Pensacola. CSXT traffic along the line today includes long merchandise trains, several intermodal trains, bulk coal, grain and rock trains, and finally local train traffic. All freight traffic combined tops 17 daily trains from New Orleans to Mobile.

There are 179 active customers along the rail line from New Orleans to Orlando. By far the largest customer site is the Alabama State Port Authority's McDuffie Terminal, where CSX handled nearly 40,000 loads in 2015. Other major customers whose success is important to the regional economy include Chevron in Pascagoula, MS, Ineos Phenol in Theodor, AL and PCS in Lake City, FL.

History of the Sunset Limited. To understand the challenges of the region, it is worth reviewing the passenger service there before Hurricane Katrina damaged much of the Gulf Coast in 2005, including destroying approximately 40 miles and three major bridges and others on CSXT's line. The federal government reported extremely challenging service, financial and ridership numbers for the pre-Katrina Amtrak train, known as the Sunset Limited.

- The on-time performance (OTP) of the Sunset Limited along its entire route averaged 7% according to the testimony of Kenneth Mead, the U.S. Department of Transportation's Inspector General. He reported that 7% performance in testimony before the U.S. Senate Commerce Committee in September, 2005.

- The same testimony reported that each passenger trip on the Sunset Limited was heavily subsidized by the federal government, with estimates as follows:

    - on an operating basis, between $286 per passenger (coach) and $366 per passenger (first class); and
    - on a fully- allocated cost basis, between $416 and $627 per passenger.

- Gulf Coast trips on the Sunset Limited had an average annual ridership of under 40,000 during its last full year of operation in 2004.

HDR Recommendations. HDR identified the necessary improvements for any Gulf Coast passenger restoration:

- 182 miles of second main track, sidings and yard bypasses;
- 243 miles of CTC signaling and 392 miles of PTC
- 14 improved drawbridges
- 3 replaced drawbridges

These recommendations take into account the geographic constraints of the line, the existing and future freight traffic (estimating 2.4% compound annual growth), and the CSXT infrastructure. We believe these enhancements would cost, at a minimum, $2 billion. The average run time of the total route would be just over 19 hours westbound, and just under 19 hours eastbound.

Even with those improvements, HDR's modeling suggests that the OTP of the long-distance trains (FRA's Alternative A and A1) would average only 67% at the endpoint. HDR did not take into account the STB rule that takes effect later this month that measures OTP at every station stop, and would deem a train late after 15 minutes at any stop.

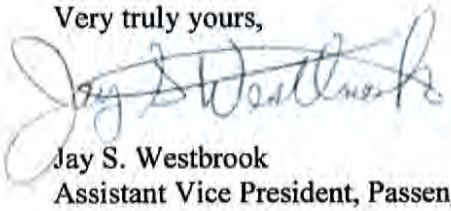
The OTP of the state-supported corridor (FRA Alternative A) did not improve to be close to the 80% standard; it stayed markedly lower at 75%. To summarize, the OTP of both passenger service alternatives could not, as a practical matter, achieve the 80% all station minimum prescribed in a combination of the 2008 Passenger Rail Infrastructure Improvement Act (PRIIA) and the new STB rule.

Performance Compliance Likely Impossible. The historically poor performance of the Sunset Limited, due to the geographic and regulatory challenges cited above, occurred before the passage of PRIIA, which enforced an 80% OTP standard for Amtrak trains based on endpoint OTP. The precise calculation of the 80% is the subject of pending litigation, but the 80% standard remains unless Congress repeals it. The STB in late July published a rule to become effective August 27 which measures the 80% OTP at every station stop, not just endpoint. In other words, while OTP performance would improve *if the HDR recommended improvements are made*, it would still fall far below the regulatory threshold, subjecting CSX to undefined and punitive financial penalties.

CSXT has been a willing partner in the discussions of the GCWG to date and, in that regard, offered expertise and did not pre-judge the modeling results. Now that they have been shared, however, it is clear that the resumption of Amtrak service on the Gulf Coast comes at an extremely steep price, with no practical ability for CSXT to provide the level of service required now by applicable law, which would expose it to uncapped penalties and devastating reputational harm.

Again, we thank the FRA, Amtrak and the members of the Working Group for allowing us to participate in this important effort. We know that all involved understand the complexity of this effort and share our belief that any reinstitution of new service must be designed and funded in a way that would reasonably assure CSXT's ability to meet minimum federal requirements for performance.

Very truly yours,



Jay S. Westbrook
Assistant Vice President, Passenger Operations

cc: Mr. Richard Cogswell
Ms. Jessie Fernandez-Gatti

APPENDIX F

NATIONAL RAILROAD PASSENGER CORPORATION
1 Massachusetts Avenue, NW, Washington, DC 20001
Tel 202.906.3670 Fax 202.906.2850

Richard H. Anderson
President and Chief Executive Officer

April 10, 2018

Mr. James M. Foote
Chief Executive Officer
CSX Transportation, Inc.
500 Water Street
Jacksonville, Florida 32202

Dear Mr. ~~Foote~~ Jim:

I write to request your assistance and engagement in finalizing plans to restore intercity passenger rail service to the Gulf Coast, starting with two State Supported daily round trips between New Orleans and Mobile, in the next 12-18 months.

I propose that Amtrak and CSXT negotiating teams, with the Southern Rail Commission's support and guidance, seek to reach an agreement in principle on an operating plan and any necessary infrastructure improvements. Your timely commitment would ensure that the states sponsoring the service have the benefit of CSXT's input, as they prepare to apply for available grant funding to support operation of the service. If this is agreeable to you, Amtrak will promptly designate a negotiating team for this effort.

Thank you in advance for CSXT's cooperation and assistance with this important initiative. I am confident that Amtrak, CSXT, and the Southern Rail Commission can work together to develop this important service along the Gulf Coast Service.

Sincerely,

Richard

Richard H. Anderson
President and Chief Executive Officer

cc: The Honorable Ronald Batory, Federal Railroad Administrator
The Honorable Phil Bryant, Governor of Mississippi
The Honorable John Bel Edwards, Governor of Louisiana
The Honorable Kay Ivey, Governor of Alabama

P.S. This could be a very successful service linking fast growing coastal communities.

bcc: Stephen Gardner
Joe McHugh
Jay Fox

APPENDIX G

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

APPENDIX H

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

APPENDIX I

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

APPENDIX J

From: Schwartz, Peter (FRA) <peter.schwartz@dot.gov>
Sent: Wednesday, April 01, 2020 4:15 PM**To:** Montgomery, Kyle <Kyle.Montgomery@amtrak.com>; Cogswell, Richard (FRA) <richard.cogswell@dot.gov>
Cc: Dixon, Marc (FRA) <marc.dixon@dot.gov>; Irish, Nina L <Nina.Irish@amtrak.com>; Gatti, Jessie (FRA) <Jessie.Gatti@dot.gov>
Subject: RE: Items In Non-Confidential Summaries

Hi Kyle,

Thanks for your email, and sorry I had a conflicting meeting that made me unable to be on the call today. Marc had filled me in a bit about what had transpired, and your further summary is very helpful.

Not to get too far back to basics, but stated in the most simple way, railroad operations simulation represents a means of estimating the operational performance of a given territory based two primary inputs – 1) the traffic (i.e. the characteristics of the trains that operate over the territory), and the infrastructure (i.e. the characteristics of the track, signal systems, operating rules, etc. that govern how the traffic operates within the territory). If one is unable to gain a fairly detailed understanding of either one of these inputs, it is nearly impossible to come to an independent conclusion regarding the reasonableness of the outputs, or to understand why the specific outputs are resulting from the simulation. Put another way, without a thorough understanding of all the operationally relevant inputs, the simulation becomes a completely opaque black box, and the outputs become meaningless.

Second, in a situation in which the simulation is being performed to determine, assuming a target level of operating performance, what changes to the infrastructure are necessary to support a proposed change to the traffic (in this case, figuring out what infrastructure changes are needed to mitigate the operational effects on rail freight operating performance that would result from the introduction of a new passenger service), it's pretty hard to come up with hypotheses for potential infrastructure changes if you don't know what you are working from to begin with – i.e. the characteristics of the base case infrastructure. Doing so is essentially an exercise in flying blind. There are numerous types of infrastructure changes that may be worth investigating, from adding track (a costly option that many are too quick to jump to), to alleviating the causes of permanent speed restrictions, to signaling changes, etc. If you don't know what is out there to start with, it is impossible to determine which changes are worth investigating.

What FRA looks to see in terms of the inputs for operations simulation that it funds or incorporates into environmental documents is a set of data the captures all of the operational relevant information (i.e. the information that influences the simulation outputs) for the territory being simulated – both traffic and infrastructure. We are not interested in non-operational, commercially-oriented details – i.e. what the cars that make up the trains are actually loaded with, the origin or destination of cars, the original origins and final destinations of trains where such points lie outside of the simulated territory, etc. As for the commercial sensitivity of the operationally relevant information, or the concern that such data could be used to develop a "competing" simulation model, the fact is that with enough time and money, anyone could gather most, if not all, of this information from public sources, through observation of operations and infrastructure from publicly-accessible vantage points, or through the use of publically-available high-resolution aerial photography. This stuff is all in plain sight, and it would be pretty easy (albeit costly) to independently develop an simulation model of nearly any railroad operation in the country. I would prefer that we not to have to raise this specific point in detail with the larger group, but the railroads are all aware of it, just as they are aware of why feel it necessary that the simulation inputs be shared with all of the parties to this effort.

Hope this helps, and let me know if any clarification would be useful.

All the best,

Peter

APPENDIX K

NATIONAL RAILROAD PASSENGER CORPORATION
30th and Market Streets, Box 20, Philadelphia, PA 19104

January 27, 2021

Andy Daly
Senior Director – Passenger Operations
CSX Transportation
3019 Warrington Street J500
Jacksonville, FL 32254

Re: Restoration of Gulf Coast Service

Dear Andy:

I write with respect to restoration of the Gulf Coast service between New Orleans, LA and Mobile, AL. As you are aware, the RTC Study Agreement entered into on January 24, 2020, by Norfolk Southern Corporation ("NS"), CSX Transportation, Inc. ("CSXT"), and Amtrak expired on January 23, 2021. Due to concerns regarding progress made to date, including concerns regarding data transparency as raised in my letter to you and NS of August 3, 2020, Amtrak does not intend to renew the RTC Study Agreement.

As you are aware, Amtrak previously operated service along the Gulf Coast over CSXT's facilities until Hurricane Katrina halted service in 2005. Restoring reliable passenger rail service in this region is critical, as Congress recognized in the FAST Act of 2015, when it directed the creation of the Gulf Coast Working Group. It is now fifteen years since Hurricane Katrina caused Amtrak to cease service and five years since the Working Group first convened, and there is still no intercity passenger rail service for the Gulf Coast.

By this letter, we are requesting CSXT's agreement to Amtrak's restoration of the Gulf Coast service between New Orleans and Mobile beginning on or about January 1, 2022. Amtrak has proposed that the initial schedule for this twice-daily service be as shown in the attached Exhibit A, and the payments be in accordance with Section 5.1.B of the Agreement Between the National Railroad Passenger Corporation and CSX Transportation, Inc., dated June 1, 1996, as amended ("the Amtrak/CSXT Operating Agreement"), as shown in the attached Exhibit B.

It is Amtrak's position that the only infrastructure investments required prior to restoration of service are the station-related upgrades previously recommended by the Gulf Coast Working Group. Amtrak commits to working with railroad, regional, state, and local agencies to make those upgrades prior to the start date for service. Amtrak also acknowledges that—after service is restored—some targeted infrastructure improvements could benefit the ongoing service by reducing trip times. Amtrak commits to working with NS and CSXT to secure funding for the additional improvements previously identified by the Gulf Coast Working Group for these purposes.

In order to ensure sufficient time to complete the necessary safety and operational preparations for service launch on or about January 1, 2022, Amtrak requests that CSXT provide its written agreement for operation of the service by no later than March 15, 2021. As noted above, this is a renewed request and we stand ready to discuss any additional planning or preparation CSXT believes is necessary to achieve the start of service on or about January 1, 2022, and thereafter, ensuring service performance consistent with the recently promulgated metrics and minimum standards for intercity passenger rail, as CSXT is doing for several current Amtrak services. In making this request, Amtrak reserves all rights, whether arising under the Amtrak/CSXT Operating Agreement or otherwise, and Amtrak asks for a conversation regarding this request between appropriate CSXT and Amtrak senior leadership during the week of February 8th. I will be in touch to schedule this session.

We look forward to working with CSXT to operate this service. Thank you in advance for your cooperation on this very important initiative.

Sincerely,

Jim Blair
Sr. Director Host Railroads

cc:
Dennis Newman	-	Amtrak
Ray Lang	-	Amtrak
Christine Lanzon	-	Amtrak
Jackie Meredith-Batchelor	-	Amtrak
Nina Irish	-	Amtrak
Kyle Montgomery	-	Amtrak

Exhibit A

Gulf Coast Service
Train 23

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Dp	Mobile, AL	6:30 AM	
Dp	Pascagoula, MS	7:13 AM	
Dp	Biloxi, MS	7:43 AM	
Dp	Gulfport, MS	8:01 AM	
Dp	Bay St. Louis, MS	8:27 AM	
Ar	New Orleans, LA	9:53 AM	

Schedule Skeleton - Gulf Coast Service Westbound AM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
CSX	0.0							6:30 AM	Mobile, AL
CSX	39.9		37	4		2	7:11 AM	7:13 AM	Pascagoula, MS
CSX	60.4		22	6		2	7:41 AM	7:43 AM	Biloxi, MS
CSX	72.5		15	1		2	7:59 AM	8:01 AM	Gulfport, MS
CSX	87.6		21	3		2	8:25 AM	8:27 AM	Bay St. Louis, MS
NS	136.8		48	5			*9:20 AM*	*9:20 AM*	XNO - *N.O.T. Jct*
AMT	140.5		7	12			*9:39 AM*	*9:39 AM*	XEJ - *East City Jct*
AMT	144.1	T,E,FA,I,W,G	9	5			9:53 AM		New Orleans, LA

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
159	36	0	8	203

Gulf Coast Service
Train 24

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Ar	New Orleans, LA	7:35 AM	
Dp	Bay St. Louis, MS	8:54 AM	
Dp	Gulfport, MS	9:21 AM	
Dp	Biloxi, MS	9:40 AM	
Dp	Pascagoula, MS	10:14 AM	
Dp	Mobile, AL	10:58 AM	

Schedule Skeleton - Gulf Coast Service Eastbound AM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
AMT	0.0	T,E,FA,I,W,G,X						7:35 AM	New Orleans, LA
NS	3.4		9	9			*7:53 AM*	*7:53 AM*	XEJ - *East City Jct*
CSX	7.1		7				*8:00 AM*	*8:00 AM*	XNO - *N.O.T. Jct*
CSX	56.5		48	4		2	8:52 AM	8:54 AM	Bay St. Louis, MS
CSX	71.4		20	5		2	9:19 AM	9:21 AM	Gulfport, MS
CSX	84.1		17			2	9:38 AM	9:40 AM	Biloxi, MS
CSX	104.1		22	10		2	10:12 AM	10:14 AM	Pascagoula, MS
CSX	144.1		37	7			10:58 AM		Mobile, AL

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
160	35	0	8	203

Gulf Coast Service
Train 25

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Dp	Mobile, AL	4:30 PM	
Dp	Pascagoula, MS	5:13 PM	
Dp	Biloxi, MS	5:43 PM	
Dp	Gulfport, MS	6:01 PM	
Dp	Bay St. Louis, MS	6:27 PM	
Ar	New Orleans, LA	7:53 PM	

Schedule Skeleton - Gulf Coast Service Westbound PM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
CSX	0.0							4:30 PM	Mobile, AL
CSX	39.9		37	4		2	5:11 PM	5:13 PM	Pascagoula, MS
CSX	60.4		22	6		2	5:41 PM	5:43 PM	Biloxi, MS
CSX	72.5		15	1		2	5:59 PM	6:01 PM	Gulfport, MS
CSX	87.6		21	3		2	6:25 PM	6:27 PM	Bay St. Louis, MS
NS	136.8		48	5			*7:20 PM*	*7:20 PM*	XNO - *N.O.T. Jct*
AMT	140.5		7	12			*7:39 PM*	*7:39 PM*	XEJ - *East City Jct*
AMT	144.1	T,E,FA,I,W,G	9	5			7:53 PM		New Orleans, LA

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
159	36	0	8	203

Gulf Coast Service
Train 26

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Dp	New Orleans, LA	5:31 PM	
Dp	Bay St. Louis, MS	6:55 PM	
Dp	Gulfport, MS	7:22 PM	
Dp	Biloxi, MS	7:41 PM	
Dp	Pascagoula, MS	8:13 PM	
Dp	Mobile, AL	8:54 PM	

Schedule Skeleton - Gulf Coast Service Eastbound PM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
AMT	0.0	T,E,FA,I,W,G,X						5:31 PM	New Orleans, LA
NS	3.4		9	9			*5:49 PM*	*5:49 PM*	XEJ - *East City Jct*
CSX	7.1		7				*5:56 PM*	*5:56 PM*	XNO - *N.O.T. Jct*
CSX	56.5		48	9		2	6:53 PM	6:55 PM	Bay St. Louis, MS
CSX	71.4		20	5		2	7:20 PM	7:22 PM	Gulfport, MS
CSX	84.1		17			2	7:39 PM	7:41 PM	Biloxi, MS
CSX	104.1		22	8		2	8:11 PM	8:13 PM	Pascagoula, MS
CSX	144.1		37	4			8:54 PM		Mobile, AL

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
160	35	0	8	203

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

NATIONAL RAILROAD PASSENGER CORPORATION
30th and Market Streets, Box 20, Philadelphia, PA 19104

January 27, 2021

John V. Edwards
General Director Passenger
Norfolk Southern Corporation
Strategic Planning
Three Commercial Place
Norfolk, VA 23510

Re: Restoration of Gulf Coast Service

Dear John:

I write with respect to restoration of the Gulf Coast service between New Orleans, LA and Mobile, AL. As you are aware, the RTC Study Agreement entered into on January 24, 2020, by Norfolk Southern Corporation ("NS"), CSX Transportation, Inc. ("CSXT"), and Amtrak expired on January 23, 2021. Due to concerns regarding progress made to date, including concerns regarding data transparency as raised in my letter to you and CSXT of August 3, 2020, Amtrak does not intend to renew the RTC Study Agreement.

As you are aware, Amtrak previously operated service along the Gulf Coast over NS's facilities until Hurricane Katrina halted service in 2005. Restoring reliable passenger rail service in this region is critical, as Congress recognized in the FAST Act of 2015, when it directed the creation of the Gulf Coast Working Group. It is now fifteen years since Hurricane Katrina caused Amtrak to cease service and five years since the Working Group first convened, and there is still no intercity passenger rail service for the Gulf Coast.

By this letter, we are requesting NS's agreement to Amtrak's restoration of the Gulf Coast service between New Orleans and Mobile beginning on or about January 1, 2022. Amtrak has proposed that the initial schedule for this twice-daily service be as shown in the attached Exhibit A, and the payments be in accordance with Section 5.1(b) of the Agreement Between the National Railroad Passenger Corporation and Norfolk Southern Corporation, dated February 1, 2006, as amended ("the Amtrak/NS Operating Agreement"), as shown in the attached Exhibit B.

It is Amtrak's position that the only infrastructure investments required prior to restoration of service are the station-related upgrades previously recommended by the Gulf Coast Working Group. Amtrak commits to working with railroad, regional, state, and local agencies to make those upgrades prior to the start date for service. Amtrak also acknowledges that—after service is restored—some targeted infrastructure improvements could benefit the ongoing service by reducing trip times. Amtrak commits to working with NS and CSXT to secure funding for the additional improvements previously identified by the Gulf Coast Working Group for these purposes.

In order to ensure sufficient time to complete the necessary safety and operational preparations for service launch on or about January 1, 2022, Amtrak requests that NS provide its written agreement for operation of the service by no later than March 15, 2021. As noted above, this is a renewed request and we stand ready to discuss any additional planning or preparation NS believes is necessary to achieve the start of service on or about January 1, 2022, and thereafter, ensuring service performance consistent with the recently promulgated metrics and minimum standards for intercity passenger rail. In making this request, Amtrak reserves all rights, whether arising under the Amtrak/NS Operating Agreement or otherwise, and Amtrak asks for a conversation regarding this request between appropriate NS and Amtrak senior leadership during the week of February 8th. I will be in touch to schedule this session.

We look forward to working with NS to operate this service. Thank you in advance for your cooperation on this very important initiative.

Sincerely,

Jim Blair
Sr. Director Host Railroads

cc: Dennis Newman - Amtrak
Ray Lang - Amtrak
Christine Lanzon - Amtrak
Jackie Meredith-Batchelor - Amtrak
Nina Irish - Amtrak
Kyle Montgomery - Amtrak

Exhibit A

Gulf Coast Service
Train 23

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Dp	Mobile, AL	6:30 AM	
Dp	Pascagoula, MS	7:13 AM	
Dp	Biloxi, MS	7:43 AM	
Dp	Gulfport, MS	8:01 AM	
Dp	Bay St. Louis, MS	8:27 AM	
Ar	New Orleans, LA	9:53 AM	

Schedule Skeleton - Gulf Coast Service Westbound AM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
CSX	0.0							6:30 AM	Mobile, AL
CSX	39.9		37	4		2	7:11 AM	7:13 AM	Pascagoula, MS
CSX	60.4		22	6		2	7:41 AM	7:43 AM	Biloxi, MS
CSX	72.5		15	1		2	7:59 AM	8:01 AM	Gulfport, MS
CSX	87.6		21	3		2	8:25 AM	8:27 AM	Bay St. Louis, MS
NS	136.8		48	5			*9:20 AM*	*9:20 AM*	XNO - *N.O.T. Jct*
AMT	140.5		7	12			*9:39 AM*	*9:39 AM*	XEJ - *East City Jct*
AMT	144.1	T,E,FA,I,W,G	9	5			9:53 AM		New Orleans, LA

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
159	36	0	8	203

Gulf Coast Service
Train 24

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Ar	New Orleans, LA	7:35 AM	
Dp	Bay St. Louis, MS	8:54 AM	
Dp	Gulfport, MS	9:21 AM	
Dp	Biloxi, MS	9:40 AM	
Dp	Pascagoula, MS	10:14 AM	
Dp	Mobile, AL	10:58 AM	

Schedule Skeleton - Gulf Coast Service Eastbound AM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
AMT	0.0	T,E,FA,I,W,G,X						7:35 AM	New Orleans, LA
NS	3.4		9	9			*7:53 AM*	*7:53 AM*	XEJ - *East City Jct*
CSX	7.1		7				*8:00 AM*	*8:00 AM*	XNO - *N.O.T. Jct*
CSX	56.5		48	4		2	8:52 AM	8:54 AM	Bay St. Louis, MS
CSX	71.4		20	5		2	9:19 AM	9:21 AM	Gulfport, MS
CSX	84.1		17			2	9:38 AM	9:40 AM	Biloxi, MS
CSX	104.1		22	10		2	10:12 AM	10:14 AM	Pascagoula, MS
CSX	144.1		37	7			10:58 AM		Mobile, AL

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
160	35	0	8	203

Gulf Coast Service
Train 25

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Dp	Mobile, AL	4:30 PM	
Dp	Pascagoula, MS	5:13 PM	
Dp	Biloxi, MS	5:43 PM	
Dp	Gulfport, MS	6:01 PM	
Dp	Bay St. Louis, MS	6:27 PM	
Ar	New Orleans, LA	7:53 PM	

Schedule Skeleton - Gulf Coast Service Westbound PM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
CSX	0.0							4:30 PM	Mobile, AL
CSX	39.9		37	4		2	5:11 PM	5:13 PM	Pascagoula, MS
CSX	60.4		22	6		2	5:41 PM	5:43 PM	Biloxi, MS
CSX	72.5		15	1		2	5:59 PM	6:01 PM	Gulfport, MS
CSX	87.6		21	3		2	6:25 PM	6:27 PM	Bay St. Louis, MS
NS	136.8		48	5			*7:20 PM*	*7:20 PM*	XNO - *N.O.T. Jct*
AMT	140.5		7	12			*7:39 PM*	*7:39 PM*	XEJ - *East City Jct*
AMT	144.1	T,E,FA,I,W,G	9	5			7:53 PM		New Orleans, LA

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
159	36	0	8	203

Gulf Coast Service
Train 26

	Days of Operation	Effective 1/1/22 Daily	Remarks and Changes
Dp	New Orleans, LA	5:31 PM	
Dp	Bay St. Louis, MS	6:55 PM	
Dp	Gulfport, MS	7:22 PM	
Dp	Biloxi, MS	7:41 PM	
Dp	Pascagoula, MS	8:13 PM	
Dp	Mobile, AL	8:54 PM	

Schedule Skeleton - Gulf Coast Service Eastbound PM (Daily) 1-Jan-22

RR	Mileage	Services	PRT	Recovery Minutes	Misc. Adjust.	Dwell Minutes	Arrive	Depart	Station
AMT	0.0	T,E,FA,I,W,G,X						5:31 PM	New Orleans, LA
NS	3.4		9	9			*5:49 PM*	*5:49 PM*	XEJ - *East City Jct*
CSX	7.1		7				*5:56 PM*	*5:56 PM*	XNO - *N.O.T. Jct*
CSX	56.5		48	9		2	6:53 PM	6:55 PM	Bay St. Louis, MS
CSX	71.4		20	5		2	7:20 PM	7:22 PM	Gulfport, MS
CSX	84.1		17			2	7:39 PM	7:41 PM	Biloxi, MS
CSX	104.1		22	8		2	8:11 PM	8:13 PM	Pascagoula, MS
CSX	144.1		37	4			8:54 PM		Mobile, AL

Total Pure Run	Total Recovery Minutes	Total Misc. Adjust.	Total Dwell	Total Schedule Time
160	35	0	8	203

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

APPENDIX L

NOL-MOB Sunset Limited Delay Analysis - January 1 2003 - June 1 2005

Year	Total MBO Delay Minutes	Number of MBO Delay Instances	Train Departures (Total)	Train Departures (Westbound)	Train Departures (Eastbound)	% of Trips Encountering Delay
2003	405	17	275	139	136	6%
2004	214	14	227	116	111	6%
2005	15	1	96	49	47	1%
Grand Tota	634	32				

Row Labels	Sum of Minutes	Count of Minutes2
2003	**405**	**17**
2004	**214**	**14**
2005	**15**	**1**
Qtr2	**15**	**1**
May	15	1
Grand Total	**634**	**32**

APPENDIX M

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave. SE
Washington, D.C. 20593-7103
Staff Symbol: CG-WWM-3
Phone: (202) 372-1540
Fax: (202) 245-0529

5730
October 3, 2016

The Honorable Roger F. Wicker
United States Senate
Washington, DC 20510

Dear Senator Wicker:

This is in response to your letter dated September 13, 2016, requesting information on the Coast Guard rulemaking process with regard to the operating schedules of drawbridges and their effect on railway service and waterway navigation.

The Coast Guard must ensure that bridges across navigable waters of the United States do not unreasonably obstruct waterway traffic and at the same time provide for the reasonable needs of land traffic. Unless otherwise authorized, drawbridges must open promptly and fully for the passage of vessels when requested or signaled. If circumstances warrant, specific requirements for drawbridge operations can be approved by the District Commander through the rulemaking process. The Coast Guard has approved more than one thousand rules for specific requirements for the operation of highway and railroad drawbridges. These specific drawbridge regulations are found in 33 CFR § 117 Subpart B.

The most common drawbridge requirements in Subpart B provide periods when the bridge need not open for the passage of vessels to better provide for land traffic during high traffic periods; i.e. morning and evening rush hours. Specific requirements may also be established to provide advance notice of requested openings to the bridge owner for waterways with less frequent navigation. Bridge owners may also request specific operating requirements to provide for remote or automated operation of the bridge.

In situations where there are multiple bridges in close proximity to one another on the same waterway, the Coast Guard will ensure operating schedules are conducive to the safest and least restrictive flow of both navigational and land traffic. If there are multiple bridges in close proximity on different waterways, the Coast Guard must evaluate the navigation on each waterway when considering specific requirements for each bridge.

Upon written request for a change to a drawbridge operating regulation, the Coast Guard will evaluate the proposed operating requirements and determine whether to implement the change through the rulemaking process in accordance with the Administrative Procedures Act. The Coast Guard will not initiate the rulemaking process if the proposed change to the operating regulations will unreasonably obstruct navigation. Once a Notice of Proposed Rulemaking is published, the process can take between ninety days and a

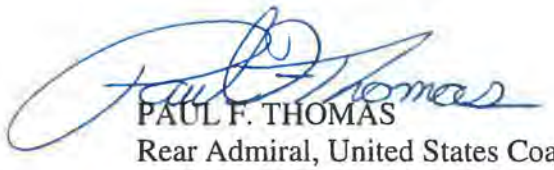
year depending on the complexity of the rule and the scope of the public comments. The Coast Guard may initiate a temporary change to the bridge operating schedule for up to 180 days as an interim measure to "test" a proposed schedule. This test deviation is not a rule and does not change the rulemaking process, but allows the bridge to temporarily operate under a proposed schedule for evaluation purposes.

During the evaluation of the proposed operating regulation, the Coast Guard will conduct outreach to waterway users, facilities, and the public to notify them of the proposed change and, if necessary, gather additional information. The Coast Guard's outreach will typically include: direct contact with known stakeholders, public notices and meetings, publication in the Federal Register, and use of local media.

We appreciate the opportunity to participate in discussions with the Gulf Coast Working Group to evaluate options for restoration of the intercity passenger rail service in the Gulf Coast region.

My Senate Liaison Office at (202) 224-2913 would be pleased to respond to any further questions you or your staff may have.

Sincerely,



PAUL F. THOMAS
Rear Admiral, United States Coast Guard
Assistant Commandant for Prevention Policy

APPENDIX N

NATIONAL RAILROAD PASSENGER CORPORATION
30th Street Station Philadelphia, PA 19104

June 16, 2021

Andy Daly
Senior Director Passenger Operations
CSX Transportation, Inc.
500 Water Street
Jacksonville, FL 32202

Re: Gulf Coast Service

Dear Andy:

The purpose of this letter is to follow up on the May 10th and May 17th exchange of correspondence between Amtrak's counsel and CSXT's counsel in the *Gulf Coast* matter currently pending before the Surface Transportation Board. As requested in CSX's May 17, 2021 letter, I am writing to describe specifically the access Amtrak needs to CSX property, people, and information, for purposes of preparing for the Gulf Coast Service to begin on or about January 1, 2022.

Attached please find Amtrak's preliminary requests for access, including the requested start date, the requested end date, a description of the activities planned, and a description of any support requested from CSX. I have also included contact information for the Amtrak department lead for each access request should you have questions.

Please let me know by no later than July 1, 2021 whether CSX agrees to provide the requested access on the requested schedule. Thank you for your attention to this matter.

Sincerely,

Jim Blair
Senior Director, Host Railroads

Cc: Kyle Montgomery - Amtrak

Amtrak Requested Access

Request No.	Expected start date of access	Expected end date of access	What activities are planned?	Required Support from CSXT						Need approval by	Amtrak Department Lead	Amtrak Contact	Amtrak Telephone	Amtrak Email
				Flagging	HyRail	T&E	Ride Along	Other	If "Other", Explain					
1	2021 Q3	2021 Q3	Survey for Interim Layover Track	X						7/1/2020	Troy Mason	Troy Mason	312-296-3819	masontr@amtrak.com
2	2021 Q3	2021 Q4	Bay St Louis Station Repair	X						7/1/2020	John Bender	Brayton Palmer	908-268-0222	brayton.palmer@amtrak.com
3	2021 Q3	2021 Q4	Gulfport Station Repair	X						7/1/2020	John Bender	Brayton Palmer	908-268-0223	brayton.palmer@amtrak.com
4	2021 Q3	2021 Q4	Biloxi Station Repair	X						7/1/2020	John Bender	Brayton Palmer	908-268-0224	brayton.palmer@amtrak.com
5	2021 Q3	2021 Q4	Pascagoula Station Repair	X						7/1/2020	John Bender	Brayton Palmer	908-268-0225	brayton.palmer@amtrak.com
6	2021 Q3	2021 Q4	Mobile Station Repair	X						7/1/2020	John Bender	Brayton Palmer	908-268-0226	brayton.palmer@amtrak.com
7	2021 Q3	TBD	Crew Qualification - Amtrak Road Foreman				X			7/1/2020	Jarrett Alston	Doug Reisner	504-251-4047	douglas.reisner@amtrak.com
8	2021 Q3	TBD	Crew Qualification - Amtrak Crew			X		X	2 CSX Pilots	7/1/2020	Jarrett Alston	Doug Reisner	504-251-4047	douglas.reisner@amtrak.com
9	2021 Q3	2022 Q1	Curve Speed Safety Review					X	CSX Geocar Data	7/1/2020	Justin Meko	Brett Ulrich	646-874-3099	Brett.Ulrich@amtrak.com
10	2021 Q3	2022 Q1	Grade Crossing Safety Review					X	Current List of Grade Crossings and Warning Devices	7/1/2020	Justin Meko	Brett Ulrich	646-874-3099	Brett.Ulrich@amtrak.com

APPENDIX O

3019 Warrington Street J500
Jacksonville, FL 32254
Office (904) 359-3568
Email Andy_Daly@csx.com

June 30, 2021

Mr. Jim Blair
Senior Director - Host Railroads
National Railroad Passenger Corporation
30th Street Station, 4 Floor North
Box 20
Philadelphia, PA 19104

RE: Gulf Coast Service

Dear Jim,

This letter responds to your letter of June 16, 2021, requesting Amtrak access to CSX properties and resources to allow Amtrak to complete activities in preparation for the possible commencement of new passenger service on the Gulf Coast.

CSX agrees to the request. Attached to this letter is a list of the appropriate CSX representatives that Amtrak can contact, when ready, to coordinate the requested activities. Please provide an Authorization Number, or numbers depending on how Amtrak desires to track the costs for these various tasks, so that CSX can properly track its costs and use such authorization number(s) to invoice Amtrak for the services requested.

We note that CSX will require significant advance notice of Amtrak's plans to qualify crews or conduct station repair work that requires flagging services to ensure there is no unnecessary delay to our freight customers. To that end, please provide more specific details as to the precise dates when flagging services will be requested (including what type of work); the number of crews that will need to be qualified to support the proposed new Gulf Coast service; and the precise dates when those crews will be ready to begin such qualifications.

We would also note that Amtrak crews qualified on the existing facilities along the Gulf Coast corridor will need to be requalified with respect to any new infrastructure agreed to by the parties or ordered by the Surface Transportation Board to support the new passenger service. Amtrak therefore should consider whether it is efficient or appropriate to seek to qualify crews before those issues have been decided. This is one more reason why Amtrak should reconsider its decision not to complete the HDR study. A comprehensive understanding of future changes to the Gulf Coast route would improve the quality and efficiency of Amtrak crew training and qualification.

We note that one of the planning activities is the “Curve Speed Safety Review” which we believe can be best addressed with the attached Curve Report from the “CSX Master Engineering Database”. All the information provided is confidential and should be treated accordingly.

Kind regards,

Andy Daly
Senior Director
Passenger Operations
CSXT

REDACTED – CONTAINS PERSONAL IDENTIFIABLE INFORMATION

APPENDIX P

3019 Warrington Street J500
Jacksonville, FL 32254
Office (904) 359-3568
Email Andy_Daly@csx.com

July 21, 2021

By Email

Charles E. Szovati
Senior Manager Design Track
Amtrak
30th Street Station
2955 Market Street, Suite 4S 163
Philadelphia, PA 19104

Re: Gulf Coast Passenger Service Between New Orleans and Mobile

Chuck:

This letter responds to your email of July 14, 2021, which Larry Skipper forwarded to my attention, expressing your intention to perform a field survey for the design and layout of a layover track at CSX's Choctaw Yard in Mobile, AL in preparation for the possible commencement of Gulf Coast passenger service.

This survey request is puzzling given Amtrak's previous representations about the Mobile station. In the March 2021 Application seeking to commence new Gulf Coast passenger service, Amtrak represented to the Surface Transportation Board that it planned to make the improvements recommended by the Federal Railroad Administration in Table 5 of the Gulf Coast Working Group's 2017 Report to Congress. Application at 6 & n.12. Table 5 calls for a Mobile station track for Amtrak trains to "park during the middle of the day," which the FRA described as a "1,000-foot track on the west side of the existing Mobile station platform and connected to the main track with a fully signaled and interlocked No. 10 turnout is proposed." GCWG 2017 Report at 27, 30.

It is not clear to us what circumstances necessitate this significant alteration of plans, moving a proposed layover track from the Mobile station into our Choctaw yard. CSX has significant reservations about the impact that change would have on freight rail operations and would appreciate any clarity you can provide.

To ensure the safety of our employees and Amtrak's survey team, CSX would like to see some conceptual layovers of the proposed project before we agree to allow your team onto the property. This will also help us to productively engage with you and your team concerning the construction of and operation over the proposed layover track. And, as discussed above, we

would appreciate any clarity you can offer on what prompted this proposal to place a layover track within our yard and on property over which you have no lease, rather than on track adjacent to the leased Mobile station platform.

Best,

Andy Daly

APPENDIX Q

NATIONAL RAILROAD PASSENGER CORPORATION
30th Street Station Philadelphia, PA 19104

August 31, 2021

Andy Daly
Senior Director Passenger Operations
CSXT Transportation, Inc.
500 Water Street
Jacksonville, FL 32202

Re: Gulf Coast Service

Dear Andy:

The purpose of this letter is to follow up on the June 30th and July 21st correspondence from CSX Transportation Inc. ("CSXT") to Amtrak in the *Gulf Coast* matter currently pending before the Surface Transportation Board. As stated in Amtrak's June 16th, 2021 letter, Amtrak is requesting CSXT's cooperation on an engineering survey for an "Interim Layover Track" for the Gulf Coast Service. Per your request, I am writing to more fully clarify the access Amtrak needs to CSXT property, people, and information, to advance this project.

As your July 21st letter correctly notes, the Gulf Coast Working Group's 2017 report identified a need for a layover track in Mobile for Amtrak trains to "park during the middle of the day," and proposed a track on the west side of the existing Mobile station platform (GCWG Report at 27, 30). Unfortunately, due to circumstances beyond Amtrak's control, the Mobile station track project has not advanced sufficiently to allow the planned layover track to be used for the restart of intercity passenger service in early 2022. Accordingly, Amtrak has determined that the construction of a temporary layover track will be required to serve the same need identified in the Gulf Coast Working Group report, namely, a place for Amtrak trains to park during the middle of the day.

Amtrak therefore is seeking CSXT's commitment, within 15 days, to cooperate on a joint Amtrak-CSXT engineering survey to identify for lease to Amtrak, or use pursuant to the terms of the June 1, 1999 Agreement Between National Railroad Passenger Corporation and CSXT Transportation Incorporated ("Operating Agreement"), a segment of track and/or roadbed within CSXT's Choctaw Yard in Mobile, AL that could be used for the temporary layover of the Amtrak train.

Amtrak's preference would be either to:

1. Lease the location of the former Track #10, commonly referred to as the "West Stub Track" or the "Amtrak Track", which was previously used as a layover facility by Amtrak's *Gulf Coast Limited*, so that Amtrak can rebuild and restore the prior facility to service (such construction would require CSXT to provide flagging protection). Amtrak previously paid CSXT for improvements at this site. For clarity, the below image of the northern end of Choctaw Yard outlines the approximate location of the former Amtrak Track in black; or,

2. Have CSXT restore the Amtrak Track, at Amtrak's expense; or,
3. Have CSXT designate an existing track within the area of Choctaw Yard that could be used for the temporary layover of the Amtrak train.

While the *Gulf Coast Limited* ceased operation in 1997, it is Amtrak's understanding that the Amtrak Track remained in place until it was removed between May and November of 2019. The removal of the fixed ancillary facility was performed without notice to Amtrak.[1] ,

Regardless, Amtrak is not seeking that CSXT restore the ancillary facility that was removed without notice to Amtrak, but instead promptly progress a lease that would allow Amtrak personnel or contractors to do so, or for CSXT to restore the track promptly, at Amtrak's expense.

The Surface Transportation Board has encouraged cooperation between Amtrak and CSXT. In its August 6, 2021 Decision (Docket No. 36496), the Board stated (in reference to the issue of interim access) that, "The Board is pleased that the parties have been able to work together to reach a suitable accommodation on this particular issue and expects them to continue to resolve areas of disagreement such as this as much as possible."

As stated in the March 2021 Application seeking to commence new passenger service, Amtrak's plan for Gulf Coast Service is and remains the construction of a permanent layover facility and

[1] Given that CSXT was on notice well prior to 2019 that Amtrak was seeking to restore the Gulf Coast Service, such notice should have been provided under Section 3.8 of the Operating Agreement, which states that CSXT "shall give notice to Amtrak (30) days prior to disposing of any other ancillary facility which may be useful in the operation of Amtrak trains if such facility is located on lines currently being used for Amtrak service or, upon notice by Amtrak to CSXT, *on lines being considered for Amtrak use*." (emphasis added).

station track at the current downtown Mobile, AL station site. Amtrak simply requests a lease at the temporary site while the permanent facility is fully designed and constructed.

Please let me know by no later than September 15, 2021 whether CSXT will agree to provide the requested access on the requested schedule. Thank you for your prompt attention to this matter.

Sincerely,

Jim Blair
Senior Director, Host Railroads

Cc: Kyle Montgomery - Amtrak

Charles Szovati - Amtrak

APPENDIX R

3019 Warrington Street J500
Jacksonville, FL 32254
Office (904) 359-3568
Email Andy_Daly@csx.com

September 15, 2021

By Email

Jim Blair
Senior Director, Host Railroads
Amtrak
30th Street Station
2955 Market Street, 4th Floor North, Box 20
Philadelphia, PA 19104

Re: Gulf Coast Passenger Service, Choctaw Yard

Dear Jim:

This letter responds to Amtrak's August 31 letter asking CSXT to conduct a joint engineering survey with Amtrak in order to identify a segment of track or roadbed within CSXT's Choctaw Yard, which Amtrak proposes to lease for use as an "Interim Layover Track" for the proposed Gulf Coast passenger service between New Orleans and Mobile. CSXT cannot agree to Amtrak's request.

Amtrak's use of Choctaw Yard would cause significant disruption to the freight service CSXT provides to its customers. In the first place, without a dedicated Mobile station and layover track at the platform location, Amtrak's passenger trains would block the main line for prolonged periods of time during onboarding and detraining at the beginning and end of each scheduled run. In addition, Amtrak would further congest the main line during repositioning moves between the Mobile station and Choctaw Yard.

Moreover, due to the location in Mobile and current use, Choctaw Yard is an already busy and congested facility, which provides valuable switching and storage services to the Port of Mobile and many shippers that rely on CSXT's freight service. The lack of a layover track in Mobile would require Amtrak to not only park trains in Choctaw during the day but overnight as well. This will result in the use of the layover track for a substantial portion of every day.

Amtrak's presence in the yard for layover and service preparation activities also would pose significant safety risks. Amtrak presumably would need to, at minimum, clean the passenger coaches, conduct routine maintenance checks, and

perform turnaround services. These daily activities would place Amtrak employees in the middle of an active, congested and growing railyard on a daily basis.

Amtrak explains that it is making this new request to lease track in Choctaw Yard because a layover track at the Mobile station will not be completed before the end of 2021 due to circumstances that are purportedly "beyond Amtrak's control." Amtrak suggests that the use of Choctaw Yard as a layover location will be "temporary," but provides no explanation of the obstacles Amtrak has encountered or how long it might take to resolve them. CSXT cannot agree to significant disruption at a key terminal for an indefinite period.

Finally, Amtrak's suggestion that it had some claim on certain track that was removed from Choctaw Yard is meritless. According to Amtrak's own letter, the Track #10 was last used by an Amtrak train in 1997. The Sunset Limited did not use this track in the years leading up to Hurricane Katrina, and CSXT had no indication that Amtrak needed or planned to use this track to accommodate future service. On the contrary, recent studies like the Gulf Coast Working Group and the 2018 HNTB study have assumed that Amtrak would use a dedicated station and layover track at the Mobile platform location.[1] Whatever obstacles that Amtrak has encountered in its longstanding plans for a Mobile station cannot be overcome by leasing track in Choctaw Yard.

For these reasons, CSXT cannot agree to Amtrak's request for an engineering survey of Choctaw Yard or to lease property therein.

Best regards,

Andy Daly
Senior Director Passenger Operations
CSX Transportation, Inc.

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[1] *See* GULF COAST PASSENGER SERVICE IMPLEMENTATION STUDY AND COST ESTIMATE, HNTB Corp., at 28 (Dec. 2018) ("Construction of a new siding off the mainline at the Mobile station is required to provide mid-day storage for Amtrak."); GULF COAST WORKING GROUP REPORT TO CONGRESS, The Gulf Coast Working Group, at 27 (July 2017) ("A 1,000-foot track on the west side of the existing Mobile station platform and connected to the main track with a fully signaled and interlocked No. 10 turnout is proposed.").

APPENDIX S

NATIONAL RAILROAD PASSENGER CORPORATIO
30th and Market Streets, Box 20, Philadelphia, PA 19104

November 30, 2021

Andy Daly
Senior Director Passenger Operations
CSXT Transportation, Inc.
500 Water Street
Jacksonville, FL 32202

Re: Gulf Coast Passenger Service, Choctaw Yard

Dear Andy:

In reference to the November 29, 2021 decision by the Surface Transportation Board (Docket No. FD 36496), please supply a primary contact and dates that CSXT personnel are available for a joint site inspection and engineering survey to identify a segment of track or roadbed within CSXT's Choctaw Yard that can be used as an interim layover location for Gulf Coast service. Alternatively, given CSXT's position that the Choctaw Yard site identified by Amtrak is not a suitable site for an interim layover track, please identify another suitable location or locations of your choosing for an interim layover track and we will undertake a joint site inspection and engineering survey of that site or sites.

Pursuant to the direction from the Board, Amtrak's intention is to schedule this inspection and survey as soon as possible such that Amtrak can make the filing the Board requested by December 10th, 2021.

Amtrak expects to have representation from its Operations, Engineering, Safety, and Host Railroad departments.

Sincerely,

Jim Blair
Assistant Vice-President, Host Railroads

Cc: Dennis Newman - Amtrak
Mike Carrino - Amtrak
Kyle Montgomery - Amtrak

APPENDIX T

3019 Warrington Street J500
Jacksonville, FL 32254
Office (904) 359-3568
Email Andy_Daly@csx.com

December 1, 2021

Mr. Jim Blair
Assistant Vice President - Host Railroads
National Railroad Passenger Corporation
30th Street Station, 4 Floor North
Box 20
Philadelphia, PA 19104

RE: Gulf Coast Service, Choctaw Yard

Dear Jim,

This letter responds to your letter of November 30, 2021, requesting information and dates for a "joint inspection and engineering survey" of Choctaw Yard pursuant to the Surface Transportation Board's November 29, 2021 decision in Docket No. FD 36496.

CSXT will facilitate the requested survey of Choctaw Yard as required by the STB's decision. Amtrak personnel should contact my colleague Chad Coker to schedule the site visit to Choctaw Yard. CSXT could accommodate the requested site visit on Monday, December 6 or Tuesday, December 7. Mr. Coker can be reached directly at 251-295-4234 to coordinate the details.

CSXT reiterates its longstanding position that the appropriate way to facilitate a successful Gulf Coast passenger service with a station in downtown Mobile is to construct a dedicated station and layover track for passenger trains at the Amtrak station off of CSXT's mainline tracks. Therefore, consistent with the findings of the 2021 Gulf Coast RTC Study, CSXT is willing to allow Amtrak personnel to survey CSXT's right of way at the downtown Mobile station location for the construction of a dedicated station and layover track. We have attached a map illustrating potential locations on CSXT's right of way that could be used for the layover track and new station platform.

Kind regards,

Andy Daly
Senior Director
Passenger Operations
CSXT

CC: Chad Coker – CSXT

EXHIBIT 3

BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. FD 36496	)	**Application of the National Railroad Passenger Corporation Under 49 U.S.C. § 24308(e) – CSX Transportation, Inc. and Norfolk Southern Corporation**

Reply
Verified Statement

of

Thomas D. Crowley
President

and

Daniel L. Fapp
Senior Vice President

L. E. PEABODY & ASSOCIATES, INC.
ECONOMIC CONSULTANTS

On Behalf Of

The National Railroad Passenger Corporation

Due Date: December 3, 2021

TABLE OF CONTENTS PAGE

LIST OF EXHIBITS

I. INTRODUCTION

We are Thomas D. Crowley and Daniel L. Fapp, President and a Senior Vice President, respectively, of L. E. Peabody & Associates, Inc. L. E. Peabody & Associates, Inc. is an economic consulting firm that specializes in addressing economic, transportation, marketing, financial, accounting, operating and fuel supply matters. We have spent most of our consulting careers of over 50 and 24 years, respectively, evaluating railroad operations, capacity, costs, and profitability and pricing issues for shippers, producers, railroads, and government agencies. Our credentials are included as Exhibit No. 1 and Exhibit No. 2 to this Reply Verified Statement ("Reply VS").

We were asked by Counsel for the National Railroad Passenger Corporation ("Amtrak") to review and evaluate the opening evidence submitted by CSX Transportation, Inc. ("CSXT") and Norfolk Southern Railway Company ("NS") (jointly "Railroads") in this proceeding. Our review relates to the alleged impact of Amtrak trains on the Railroads' current and forecasted freight rail operations between New Orleans, LA and Mobile, AL. Specifically, Counsel for Amtrak asked us to review the CSXT/NS presentation of Rail Traffic Controller ("RTC")[1] simulations addressed in the joint verified statement of the Railroads' witnesses Charles H. Banks and Larry Guthrie of R. L. Banks & Associates, Inc. (referred to in our Reply VS as either "Banks/Guthrie" or "Banks/Guthrie VS"), including the "New Orleans – Mobile Gulf Coast Passenger Service RTC Modeling Report" ("RTC Modeling Report") included as Appendix A to the Banks/Guthrie VS.[2]

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1 RTC was developed and is maintained by Berkeley Simulation Software LLC.

2 The RTC Modeling Report was prepared by Mr. Guthrie and Mr. Mark H. Dingler of HNTB Corporation. Neither the Banks/Guthrie VS nor the RTC Modeling Report provide any details on Mr. Dingler's qualifications or past work experience. Mr. Dingler also did not sign a verification related to the work performed on the RTC Modeling Report. Since it is Banks/Guthrie that verified their joint statement submitted in this proceeding, including the RTC Modeling Report, we will reference Banks/Guthrie as the primary CSXT/NS witnesses in this Reply VS. We assume Banks/Guthrie are sponsoring the RTC Modeling Report even though they do not claim to be the sponsors.

In addition, Counsel for Amtrak asked us to review the joint verified statement filed by CSXT witness Hanna Rosse and NS witness Holly Sinkkanen ("Rosse/Sinkkanen VS"). Rosse/Sinkkanen claim that they provided the freight service data and other inputs used by Banks/Guthrie in their RTC cases, and that they reviewed the RTC cases produced by Banks/Guthrie and agree with the results.

Also, Counsel for Amtrak requested that we review the opening evidence submitted by the Alabama State Port Authority ("ASPA") and Terminal Railway Alabama State Docks ("TASD"), including the Opening Verified Statement of Robert M. Golden ("Golden VS"), TASD's General Manager. Mr. Golden describes the alleged impacts the reinstatement of Amtrak service may have on the TASD.

Our findings are included in the remainder of this Reply VS under the following topical headings.

II. SUMMARY OF FINDINGS

Based on our review and analyses of the data provided and our considerable experience in evaluating railroad operations through use of the RTC Model, other operating models and on-the-ground studies, we reached the conclusions set forth below.

A summary of our findings include:

1. A close read of the Banks/Guthrie VS and the RTC Modeling Report reveals that the 2019 RTC Base Case modeled bears little resemblance to real-world CSXT and NS operations and contains inputs that were manufactured to limit, to the greatest extent possible, the ability of the issue corridor to handle any increase in rail traffic. RTC Model inputs included those that were made-to-order extreme values and bear no resemblance to reality and other inputs that should have come from actual CSXT and NS data for an actual two (2) week period in 2019. In this case, a number of the key inputs that were developed and used in the Banks/Guthrie model were developed using so-called triangular distribution methods. The triangular distribution is typically used as a subjective description of a population for which there is only limited sample data, and especially in cases where the relationship between variables is known but data is scarce. It is based on a knowledge of the minimum and maximum and a guess as to the modal value. For these reasons, the triangle distribution has been called a "lack of knowledge" distribution.[3]

2. CSXT and NS have all the actual, historical data needed to develop a base period RTC simulation for any rail line in their respective systems. As summarized below, Banks/Guthrie chose to ignore the actual CSXT and NS data without explanation when modeling the base cases included in their Opening VS.

3. Examples of this total disregard for the use of actual, historical data when developing the base cases can be found throughout the voluminous data provided by Banks/Guthrie to support their RTC calculations. Examples of this made-for-litigation data used in the Banks/Guthrie RTC modeling exercise include:

    a. The 2019 actual CSXT and NS train counts do not match the 2019 RTC train counts developed by Banks/Guthrie. Specifically, Banks/Guthrie modeled 257% more trains than actually moved during the peak period;

    b. The 2019 actual CSXT train sizes do not match the Banks/Guthrie RTC train sizes. There are 43 CSXT train types included in the Banks/Guthrie model that have maximum train sizes that have no link to actual CSXT train sizes. To compound this problem, Banks/Guthrie provided no workpapers that show how they selected or determined their RTC freight train sizes;

[3] *See*, https://www.isobudgets.com/probability-distributions-for-measurement-uncertainty/.

c. Banks/Guthrie assumed that CSXT operated between [redacted] yard trains per scheduled operating day in both the Siebert Yard and the Gentilly Yard. CSXT provided dispatch data shows that many of the actual Siebert Yard trains and Gentilly Yard trains did not report being dispatched on certain days of the week; and

d. The Alomanster Avenue Drawbridge, according to Banks/Guthrie, has [redacted] train movements every day of the week without providing any supporting workpapers. Using the Port of New Orleans daily shift reports, we identified an average of [redacted] trains per day operating over the Alomanster Avenue Drawbridge. This difference in operations is unexplained by Banks/Guthrie.

4. CSXT and NS current traffic levels and future traffic growth forecasts are not supported but are the basis for the 2039 modeled traffic. Additionally, many of the RTC inputs and supporting analyses are based on arbitrary standards.

   a. Ms. Rosse's forecast of future train sizes is unsupported and undocumented. While Ms. Rosse's worksheet shows how she applied her forecasted growth to select current CSXT trains, she does not provide the source data for the current train lengths and tonnage on which the future train sizes are based. In addition, she did not supply current information for [redacted] trains, but instead, simply lists expected future train sizes without any support or documentation.

   b. Ms. Sinkkanen similarly provides no details for her future train growth, including failing to provide any internal NS forecast to support her claimed growth estimates. She simply declares that certain trains will grow at some point in the future.

   c. In contrast to Rosse/Sinkkanen's unsupported growth estimates, independent forecasters state the railroad industry will see limited growth at best, and potential declines in traffic in the future. The most recent Energy Information Administration ("EIA") Annual Energy Outlook forecasts future rail traffic to grow by 0.7 percent per year as compared to the nearly 1.5 percent assumed by Rosse/Sinkkanen. Additionally, rail experts at Oliver Wyman, an international consulting firm retained extensively by railroad companies and their affiliates, believe the railroad industry could contract in the future if current trends in the industry do not change.

   d. Ms. Sinkkanen does not provide any support for the number of foreign railcars operating over the NS portion of the Amtrak route and relies upon an unsupported document without any indication of who prepared the document and what was the source of the data. In addition, the information that Ms. Sinkkanen does supply contains numerous inconsistencies.

   e. The train size data Banks/Guthrie used in their RTC models are undocumented and cannot be linked to real-world train data. For example, Banks/Guthrie do not provide any documentation or links to the number of loaded railcars, empty

railcars, train length or train tonnage for base year 2019 trains included in their RTC models. It is customary in STB cases to electronically link files when possible and to document the sources of data used. Banks/Guthrie provide no such links or documentation for the development of their RTC trains, a fact confirmed by the Railroads' outside Counsel. There is simply no way to reconcile and link Banks/Guthrie's train data back to real-world sources.

f. Banks/Guthrie claim that in order for Amtrak to obtain a real-world 80 percent On-Time Performance ("OTP") required under FRA regulations, the Amtrak trains in their RTC model must maintain a 95 percent OTP factor. Banks/Guthrie provide no analysis or support for their claim that a 95 percent OTP in the RTC model equates to an 80 percent real world OTP. Rather, the 95 percent OTP is a completely arbitrary standard without any support from independent studies.

5. The infrastructure in the Banks/Guthrie RTC model is forced to handle more than twice the number of trains that it accommodates in the real-world, not including the proposed Amtrak passenger service. The provided RTC model includes excessive track outages and hundreds of trains unnecessarily blocking access to sidings and yards by dwelling on the main line. The Banks/Guthrie RTC model is also missing much of the infrastructure that exists in the real world, yet there are many tracks and sidings included in the model that were never used by any train.

6. Many of the RTC simulation inputs proffered by Banks/Guthrie are so unusual and out of the norm of RTC modeling, it is evident that they deliberately produced a model that included unrealistic congestion, underutilized infrastructure, unrealistic blockages, unrealistic operations, overextended dwell times, and inefficient dispatching options. The purpose of the RTC simulation in this case should be to represent a fair and accurate picture of the railroad infrastructure being simulated. That is not what Banks/Guthrie presented. Examples include:

   a. Inclusion of [redacted] "Yard" trains performing switching operations in and around yards that, although they are switching small numbers of cars, are [redacted] feet in length and extend out of the yards and block the main line as well as access to the yards;

   b. Inclusion of [redacted] occasions where track is shut down to all traffic for maintenance (safety issues) or traffic (interchange with foreign railroads), yet passenger trains are allowed to continue at full speed;

   c. Inclusion of excessive bridge openings, averaging [redacted] bridge openings daily;

   d. Placement of switching operations and other dwells on the main line and exclusion of the industrial facilities or other track where these operations would normally take place;

e. Improper modeling of trains which foul switches on the network preventing usage of yard track and/or sidings; and

f. Inclusion of [redacted] occasions where portions of the track are shut down for maintenance outages ([redacted] times per day on average).

7. Mr. Golden, TASD's General Manager, is of the opinion that permitting Amtrak to reinstate passenger rail service in Mobile, AL will harm TASD's freight railroad operations in the Mobile Terminal unless additional infrastructure is constructed. We believe that Mr. Golden overstated the impact that renewed Amtrak operations in Mobile will have on TASD's operations. Our belief is confirmed, in part, by Banks/Guthrie's RTC simulations, which show freight trains working around Amtrak trains while parked for loading and unloading in Mobile. We also found that Mr. Golden's statements concerning the impact of Amtrak trains on TASD operations and his proposed infrastructure solutions to the alleged problems caused by Amtrak trains were unsupported by any evidence that could be tested and/or verified.

III. BACKGROUND

In April 1993, Amtrak extended tri-weekly Los Angeles-New Orleans Sunset Limited service east of New Orleans to Jacksonville, FL and south to Miami, FL restoring passenger rail service over the full length of the Gulf Coast Corridor. In 1996, Amtrak cut the eastern terminus back to Sanford, FL and in 1997 extended service to Orlando, FL.

In the wake of hurricane Katrina in 2005, Amtrak suspended, but did not eliminate, its Sunset Limited service east of New Orleans due to damage caused by the storm to the CSXT and NS track infrastructure. Before hurricane Katrina suspended Amtrak service, Amtrak served the Gulf Coast region via three (3) different services, two (2) of which ran between the same city pairs as the proposed Gulf Coast Service, i.e., New Orleans, LA and Mobile, AL.[4]

For years following hurricane Katrina, residents of the Gulf States, as well as local, state, and federal officials, requested the return of Amtrak passenger service to the region. In 2015, under the Fixing America's Surface Transportation ("FAST") Act, Congress directed the creation of the Gulf Coast Working Group to evaluate restoring intercity passenger rail service. Amtrak, CSXT and NS all participated in that working group, as did representatives from the Federal Railroad Administration ("FRA"), the Southern Rail Commission, the Transportation Departments of Louisiana, Alabama, and Florida, municipalities and communities along the proposed route, regional transportation planning organizations, and others. The working group's evaluation

[4] The three (3) services referred to in the Report for the Southern Rail Commission on Potential Gulf Coast Service Restoration Options include: (1) the Gulf Coast Limited that operated between Mobile and New Orleans during the 1984 World Fair; (2) the Gulf Coast Limited that operated again in 1996-1997; and (3) the Sunset Limited extension that ran through the region, as part of a transcontinental Los Angeles-Florida run from 1993 through 2005. *See*, "Report for the Southern Rail Commission on Potential Gulf Coast Service Restoration Options" at p. 5.

resulted in a July 2017 Report recommending, among other things, twice-daily service between New Orleans and Mobile.[5]

The impact that Amtrak's New Orleans/Mobile service will have on existing CSXT and NS service is the subject of the Banks/Guthrie VS, the Rosse/Sinkkanen VS and the Golden VS. Our critique and response to Banks/Guthrie, Rosse/Sinkkanen and Mr. Golden is contained in this Reply VS.

[5] *See,* "Gulf Coast Working Group Report to Congress" at p. ES-1.

IV. CSXT/NS DID NOT MODEL REAL WORLD OPERATIONS

Banks/Guthrie state that they were retained by CSXT and NS to analyze the impact of the proposed Amtrak reinstated Gulf Coast passenger rail service on CSXT and NS freight operations in light of existing and projected future operations, infrastructure and constraints.[6]

We agree that the RTC model is an appropriate tool for this evaluation and that "the base case is the foundation of a RTC Model. It serves to validate model inputs, network operations, and infrastructure in the control year."[7] However, the RTC output is only as accurate as the inputs used in the model. Stated differently, if the base case inputs are not accurate, the entire exercise is flawed and the results unreliable.

As discussed in Section V. below, Banks/Guthrie failed to adequately document the evidence that they present. The Banks/Guthrie model includes an extremely high number of raised drawbridges, track outages, and other operations that require the simulated trains to occupy main line track, but none of those operations are supported with verifiable documentation.

Six (6) primary RTC cases were developed by Banks/Guthrie that attempt to simulate current and future rail operations along the Gulf Coast: (1) Base 2019; (2) 2039 Base; (3) 2039 Passenger; (4) 2039 Build; (5) Passenger 2019; and (6) Build 2019.[8] Each case is described briefly below.

Banks/Guthrie claim that the base case for the year 2019 ("Base 2019") simulated how CSXT and NS currently operate in the absence of reinstated Amtrak service between New Orleans and Mobile. Banks/Guthrie then developed a similar case for expected operations 20 years in the

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6 *See,* Banks/Guthrie VS at p. I-1.

7 See, Surface Transportation Board ("STB") Docket No. FD 36496, *Application of the National Railroad Passenger Corporation Under 49 U.S.C. § 24308(e) – CSX Transportation, Inc. and Norfolk Southern Corporation*, filed November 3, 2021 ("CSXT/NS Opening Evidence") at p. 29.

8 Exhibit No. 3 to this Reply VS lists the six (6) primary Banks/Guthrie RTC cases and shows which case components were held constant between cases and which were changed to evaluate each modification.

future. Specifically, they developed a base case for the year 2039 ("2039 Base") in which they attempt to simulate future CSXT and NS rail operations taking into consideration planned infrastructure changes along the Gulf Coast route. They then add reinstated Amtrak service to their expected future operations ("2039 Passenger") that they claim allows them to assess the impact of passenger rail service on future CSXT and NS operations. Banks/Guthrie then add the additional infrastructure they claim is necessary to allow CSXT and NS to operate at the same future operating levels before Amtrak trains were added ("2039 Build").

Banks/Guthrie then attempted to simulate a 2019 passenger case ("Passenger 2019") where Amtrak service is reinstated on the current rail infrastructure to address Amtrak's request to start service in 2022. After modeling the Passenger 2019 case, they added a subset of the 2039 additional track infrastructure that they allege is necessary to accommodate Amtrak without any decline in CSXT and NS operations ("Build 2019").

Banks/Guthrie summarized the results of their different cases in a series of charts, in which they show the percentage change in what they call RTC Performance Metrics.[9] These RTC Performance Metrics are based upon the flawed RTC models developed by Banks/Guthrie discussed below and any statistics developed by these models are similarly flawed. Additionally, Banks/Guthrie presented most of these metrics as the percentage change between their freight only cases and freight and passenger cases. For example, Banks/Guthrie indicate train speeds declined by 4.5 percent in 2039 with the addition of Amtrak trains to the freight trains operating on the network.[10] A review of their workpapers shows that simulated train speeds only changed by [redacted] mph from [redacted],[11] assuming their model inputs were accurate and reliable.

[9] The Banks/Guthrie Performance Metrics are described in the RTC Modeling Report at pp. 30-32.
[10] *See,* RTC Modeling Report at p. 34.
[11] *See,* Banks/Guthrie Opening e-workpaper [redacted]

Banks/Guthrie play similar games with their recrew statistics. While Banks/Guthrie state that train recrews will increase by 37.7 percent in 2019 with the addition of Amtrak passenger service,[12] their workpapers show that this amounts to an average recrew rate of [redacted] per week.[13] In other words, adding Amtrak trains will require the Railroads to send out additional train crews [redacted], again assuming their inputs are accurate and reliable. This is significantly less dramatic than the 37.7 percent change presented by Banks/Guthrie. In addition, these Banks/Guthrie percentage statistics suffer from the same fatal flaw, i.e., they are based on flawed RTC models.

A. BASE CASE (2019) TRAINS

To develop the number and types of freight trains to include in their Base 2019 RTC case, Banks/Guthrie state that they relied upon data provided by CSXT and NS that reflected the Railroads' September 2019 through November 2019 operations.[14] Banks/Guthrie also state that they included a variety of freight train types in their RTC cases to provide a sufficient level of detail to accurately portray realistic train operations including, but not limited to, through trains, local trains, foreign trains and yard trains.[15] The RTC Modeling Report states that the "[f]inal dates were agreed upon as a more representative data set of typical operations."[16] However, the final dates relied upon by Banks/Guthrie are, in fact, two (2) months of data that they manipulated to create two (2) weeks of input to suit their needs using triangular distribution methods, i.e., a "lack of knowledge" distribution.

[12] *See,* RTC Modeling Report at p. 45.
[13] *See,* Banks/Guthrie Opening e-workpaper [redacted]
[14] *See,* RTC Modeling Report at p. 23.
[15] *Id.* at p. 23.
[16] *Id.* at fn. 17.

Banks/Guthrie were provided two (2) to three (3) months of real-world train event data by both CSXT and NS, but rather than modeling the real-world trains provided by CSXT and NS as they actually moved, Banks/Guthrie abandoned those actual trains in favor of trains they manufactured. This approach contradicts standard RTC modeling practices employed by the STB, which seek to use actual train data where possible. The STB is clear that it prefers real-world data to projections or estimates.[17] It is standard RTC modeling protocol to establish a base case simulation using actual train schedules, consists, and operations whenever possible. Although those actual trains and operations were available, Banks/Guthrie inexplicably departed from standard procedure in favor of using trains they developed and basing their dispatch times on triangular distribution methods.[18]

It is hard to imagine that the Railroads' own witnesses had limited sample data and needed to rely upon "guesses" to determine the appropriate actual dates to use. There is no basis on which they can claim, without any analysis or proof, that their 2019 case runs represented 2019 rail operations.[19]

The number of trains Banks/Guthrie included in their 2019 cases were nothing like the actual number of CSXT and NS trains operated by the Railroads in September 2019 through November 2019.

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[17] *See,* STB Docket No. NOR 42125, *E.I. DuPont De Nemours And Company v. Norfolk Southern Railway Company*, served October 3, 2014 at p. 5, and STB Docket No. 42088, *Western Fuels Association, Inc., And Basin Electric Power Cooperative V. BNSF Railway Company*, served September 10, 2007 at p.73

[18] Banks/Guthrie also state that they based some departure times on a uniform distribution based on their analysis of historical departure data. *See*, RTC Modeling Report at Appendix G. A uniform distribution is symmetric probability distribution where a finite number of values are equally likely to be observed. While Banks/Guthrie claim that they decided to use a triangle or uniform distribution for train dispatch times based on actual railroad data, they provided no workpaper that links real-world train symbol dispatch times to the distributions used in their model.

[19] *See,* RTC Modeling Report at p. 23.

We discuss these flaws in the Banks/Guthrie results below under the following topical headings:

1. 2019 Actual CSXT and NS Train Counts Do Not Match 2019 RTC Train Counts
2. 2019 Actual CSXT Train Sizes Do Not Match 2019 RTC Train Sizes
3. Overstated the Number of Yard Trains in CSXT's Gentilly and Seibert Yards
4. Overstated the Number of Trains on the Alomanster Avenue Bridge
5. Adjusted CSXT Train Dispatch Times

1. 2019 Actual CSXT and NS Train Counts Do Not Match 2019 RTC Train Counts

Banks/Guthrie did not provide any evidence to show how they developed the trains that they input into their RTC model, only that the data were provided by the Railroads and they used triangular distribution methods to develop many of the variables included in their train lists. This fact is confirmed in a letter from the Railroads' outside Counsel that states that they have no formulas, documents or workpapers supporting how they developed the train inputs to the RTC model.[20]

For purposes of comparing the fourteen-day modeling period included in the Banks/Guthrie RTC model to the real-world train event data provided by CSXT and NS, we analyzed the CSXT and NS provided train event data to determine the peak period in the provided data. The STB confirmed that a railroad's peak operating period reflects the real world constrains faced by that railroad.[21] This was accomplished by first calculating the total number of daily trains in both the CSXT and NS train event data and combining the results to determine the total number of trains per day. Once we determined the total number of combined trains per day, a rolling fourteen-day total was developed that shows the total number of trains every day for the preceding fourteen days. The day with the highest number of trains in the preceding two (2) week period

[20] *See*, November 19, 2021 Letter from Matthew J. Warren, Esquire To Kali N. Bracey, Esquire. (App. A)
[21] *See*, STB Docket No. 42022, *FMC Wyoming Corporation And FMC Corporation V. Union Pacific Railroad Company*, served May 12, 2000 at p. 151.

was selected as the last day of the peak period. Based on this analysis, the [redacted] two (2) week time period produced [redacted] combined CSXT and NS trains, which is the highest total number of trains in a two (2) week period.[22]

Table 1, Column (2) below compares the real-world trains included in the supporting CSXT and NS train data for the 14-day peak period ([redacted]) from the data that we were provided, i.e., [redacted] data, to the trains Banks/Guthrie input into their RTC model (Table 1, Column (3)).

Table 1
Comparison of Peak Period CSXT/NS Trains to
CSXT/NS Trains Included in Banks/Guthrie RTC Model

Train Type	14-Day Peak Period Real-World Trains 1/	Banks/Guthrie RTC 14-Day Period Simulation Trains 2/	Percent RTC Greater Than Actual 3/
(1)	(2)	(3)	(4)
1. [redacted]	[redacted]	[redacted]	[redacted]
2. Local			
3. [redacted]			4/
4. [redacted]			[redacted]
5. [redacted]			
6. [redacted]			
7. [redacted]			
8. [redacted]			
9. [redacted]			
10. [redacted]			
11. [redacted]			4/
12. [redacted]			[redacted]
13. [redacted]			4/
14. Total			[redacted]

1/ [redacted]
2/ [redacted]
3/ Column (3) ÷ Column (2) – 1 x 100.
4/ No peak period trains existed for this train type and therefore a percentage difference cannot be calculated.

[22] *See,* [redacted]

Table 1 above illustrates that the trains in Banks/Guthrie's RTC model bear little resemblance to the real-world trains. Specifically, Banks/Guthrie modeled [redacted] more CSXT and NS trains than the actual CSXT and NS train data showed moving during the peak period.[23]

In total, the RTC simulations submitted by Banks/Guthrie include [redacted] simulated trains in place of the [redacted] real-world peak period trains provided by CSXT and NS. Without explanation, Banks/Guthrie increased the amount of real-world freight trains provided to them as supporting evidence by 257 percent.[24]

The Banks/Guthrie model includes [redacted] trains (Table 1, Column (3), Line 11), but there should be no [redacted] trains in any of the simulations. This is not because they do not belong in the model, but because they are already represented in the model elsewhere and are effectively being duplicated by being included separately. Even if we remove the [redacted] trains shown in Table 1 above, there are still [redacted] movements in the 2019 Banks/Guthrie model that are classified as "Local," "Foreign" and "Yard" trains. For example, [redacted]

[23] Banks/Guthrie modeled [redacted] more trains [redacted] than actually moved during the peak period.
[24] *See,* Table 1, Column (4), Line 14.

[redacted]

These [redacted] of unnecessary "trains" that are unsupported by the provided data and perform little function except to create congestion in the RTC model translate to significant numbers of trains per day. Table 2 below illustrates the trains included in the 2019 Banks/Guthrie Base Case RTC simulation by train type on a trains per day basis.

Table 2
Trains Included in Banks/Guthrie RTC
2019 Base Case During 14-Day Modeling Period

	Train Type	Banks/Guthrie RTC Trains 1/	Average Trains Per Day 2/
	(1)	(2)	(3)
1.	[redacted]	[redacted]	[redacted]
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.	Total		

1/ The total trains on Line 16 equal the total trains on Table 1, (Column (3), Line 14 minus the Amtrak trains included on Line 14 and Line 15 - - [redacted]
2/ Column (2) ÷ 14 days.

Table 2 demonstrates that the large numbers of trains that Banks/Guthrie arbitrarily inserted into the RTC model create an unreasonable number of trains per day. For example, while

the fourteen-day modeling period includes roughly [redacted] merchandise trains per day (Table 2, [redacted]), it includes an astounding [redacted] yard trains per day (Table 2, [redacted]). By comparison, the dispatch data provided by CSXT shows that on average, CSXT averaged [redacted] yard train starts per day based on train symbols.[25]

The Banks/Guthrie model includes more than [redacted] foreign trains traversing the network each day (Table 2, [redacted]). Stated differently, the Banks/Guthrie model assumes that there are more [redacted] trains traversing the network than NS and CSXT road trains combined (Table 2, Column (3), [redacted]).

2. 2019 Actual CSXT Train Sizes Do Not Match 2019 RTC Train Sizes

Banks/Guthrie state that they developed their Base 2019 freight train sizes based on actual train size data provided by CSXT. Banks/Guthrie provide no workpapers that show how they selected or determined their RTC freight train sizes, just a completed workpaper that shows train lengths for each train type.[26]

A comparison of the 2019 freight train sizes used by Banks/Guthrie in their Base case RTC models to actual CSXT train sizes based on CSXT data provided in this case shows that many of the Base 2019 RTC trains have no counterpart in the real world. For example, for CSXT train [redacted]

[25] *See*, Reply e-workpaper "CSXT Yard Trains.xlsx." NS did not provide actual dispatch data for NS trains so we cannot make a comparison to NS trains included in the NS model. Instead, NS provided a simple narrative without any support for the operations of its yard trains in New Orleans. *See*, Sinkkanen e-workpaper [redacted]

[26] *See*, Banks/Guthrie e-workpaper [redacted]

[redacted] This is only one example of this issue. There are over [redacted] CSXT train types included in the RTC model that have maximum train sizes that have no link to actual CSXT train sizes.[29]

The most glaring example of train size errors involves the plethora of Yard trains included in the RTC model. Banks/Guthrie include hundreds of "Yard" trains apparently performing switching operations in and around the yards. While these Yard trains are constantly changing consists, the length of the train in the model does not always change. We observed [redacted] instances where the consist of these yard trains changed, but the length of the train in the RTC model remained the same. For example, [redacted] When these [redacted] yard trains move around the yards in the model, their extreme lengths mean that the trains extend out of the yard and onto the mainline, preventing any traffic from passing or entering the yard.

Banks/Guthrie provide no explanation for this shotgun approach to developing CSXT train sizes. In some situations, it appears that they attempted to replicate 2019 trains, while not in other situations. It is also not possible to determine Banks/Guthrie's approach from their workpapers because they did not provide any workpapers that demonstrate how they developed their train lengths. We can only presume they developed the train sizes used in the RTC model for some unstated and undocumented alternative reasons.

[redacted]

[29] *See*, Reply e-workpaper [redacted] This worksheet compares data contained in Banks/Guthrie's opening RTC files and Rosse's CSXT dispatch data, and shows that the maximum train sizes included in the RTC files have no counterparts to real-world trains in most cases.

[redacted]

3. Overstated the Number of Yard Trains in CSXT's Gentilly and Siebert Yards

Banks/Guthrie included yard trains working in and around CSXT's Gentilly Yard in New Orleans and CSXT's Siebert Yard in Mobile in their 2019 RTC models. In most cases, Banks/Guthrie assumed that the yard trains operated [redacted] per week, with the one exception being train [redacted] in the Gentilly Yard that operated [redacted] per week, Monday through Friday.

Table 3 below shows the train symbols and the number of starts per day for each yard train in both yards that Banks/Guthrie included in their 2019 RTC models.

Table 3
Number of RTC Yard Train Starts Per Day Included by Banks/Guthrie At CSXT's Siebert and Gentilly Yards

	Train Symbol (1)	Siebert Yard (2)	Gentilly Yard (3)
1.	[redacted] 2/	1/	[redacted]
2.		[redacted]	
3.		[redacted]	
4.		1/	
5.		[redacted]	

Source: Banks/Guthrie e-workpaper [redacted]

1/ Did not operate in Siebert Yard.
2/ The [redacted] Yard train at Gentilly Yard operates only [redacted] per week compared to [redacted] days per week for all other Yard trains.

As shown in Table 3 above, Banks/Guthrie assumed that CSXT operated between [redacted] yard trains per scheduled operating day in each yard.

It is not clear from their workpapers or the RTC Modeling Report whether Banks/Guthrie intended to model multiple yard trains per day for each train symbol in each yard, or to model a

single yard train per day for each train symbol that worked in each yard every day making multiple starts and stops.[31] Whatever their intent, Banks/Guthrie effectively modeled multiple yard trains per day, in almost all cases, because Banks/Guthrie failed to "link" their yard trains in the RTC model.[32]

The RTC model will attempt to dispatch a train at its scheduled departure time, or at the closest time there is capacity on the rail network to dispatch the train. One exception to this rule is if the train to be dispatched is linked at its origin location to another train arriving at the same location. If a train is linked to another train, it will not dispatch until the linked train arrives at the origin location (or the destination location for the arriving train). This prevents the RTC model from dispatching the second portion of a train's movement before the first portion of the train's movement is complete, assuming the RTC modeler split a single train's movement into several different parts.

For example, if there is a single hypothetical yard train [redacted] that is performing two (2) switching operations in a yard, the first switching operation could be modeled as train [redacted] and the second switching operation could be modeled as train [redacted] These two (2) simulation trains ([redacted]) actually represent one real train. Therefore, [redacted] have to be linked in the RTC model to prevent [redacted] from beginning its switching operation before [redacted] completes its switching operation. Failing to link these two (2) trains could lead to the hypothetical [redacted] activating before [redacted] is finished its operations. When this occurs, the RTC model will create a train with equipment that

[31] For example, in the Siebert Yard, Banks/Guthrie modeled trains [redacted]

[32] The one exception is the [redacted] yard trains in the Gentilly Yard, which Banks/Guthrie linked in the RTC model.

the railroad does not have and the extra train will consume capacity within the yard that would otherwise be available to other trains.

With the one exception of train [redacted] noted above, Banks/Guthrie did not link any of their [redacted] yard trains in the RTC model. This means that one yard train could begin its operations before the prior dispatched yard train completed its operations. This modeling problem can and will occur for multiple trains simultaneously creating multiple yard trains that are working in a yard at the same time, even if the intent was to have only one yard train of each train symbol type operating in the yard at any one time.

Even if Banks/Guthrie intended to dispatch only one yard train for each train symbol every day, review of CSXT dispatch data shows that CSXT does not operate all of its yard trains as often as Banks/Guthrie indicate in their RTC cases. Exhibit No. 4 to this Reply VS shows the number of yard train starts for the September 2019 through November 2019 time period for the Gentilly and Siebert Yards based on CSXT dispatch data.[33] The CSXT dispatch data shows that many of the actual CSXT yard trains did not report being dispatched on certain days of the week and do not work over the main line tracks moving through the yards.[34] This is inconsistent with Banks/Guthrie's assumptions that CSXT yard trains are dispatched multiple times throughout the day and impede operations in the yards.

The fact that Banks/Guthrie's Gentilly and Siebert Yard train counts differ from CSXT dispatch data can mean several things. It can be inferred that Banks/Guthrie overstated the actual

[33] The CSXT dispatch data identifies individual trains by their train symbols and call date and times. *See*, CSXT opening e-workpaper [redacted]

[34] The other alternative is that the yard trains did operate in the Gentilly and Siebert Yards, but did not use any of the main line track within the yards and their movements were not reported in the dispatch data. If this is the case, they would not impact the movement of trains moving through the yards and would not cause any delays by their presence, which is the functional equivalent of not being dispatched that day.

number of trains working in the Gentilly and Siebert Yards, which would lead to an overstatement in RTC statistics. In the alternative, it could also mean that CSXT's dispatch data is faulty. However, as Banks/Guthrie state in their Opening VS, they relied upon the CSXT dispatch data to develop the inputs to their RTC cases, meaning their RTC cases are faulty as well. It is not possible to tell where the fault lies as Banks/Guthrie did not provide any workpapers showing how they developed the inputs into their RTC cases, but we can state that their RTC train inputs do not match CSXT real-world dispatch data.

4. Overstated the Number of Trains on the Alomanster Avenue Bridge

The Alomanster Avenue Bridge is a drawbridge located to the west of CSXT's Gentilly Yard in New Orleans at [redacted].[35] Banks/Guthrie indicate that operation of the Alomanster Avenue Bridge impacts operations with interchange traffic because the bridge openings can cause delays that can ripple throughout the New Orleans terminal area.[36] Banks/Guthrie also claim that the bridge openings can impact operations in Gentilly Yard because yard trains will move on to the bridge to provide headway when switching cars within Gentilly Yard.

The Alomanster Avenue Bridge is impacted by the number of trains operating over the bridge, both interchange and yard trains, and the amount of time the bridge is open. The more trains that use the bridge, or are delayed by the bridge when the bridge is open, can lead to more delays throughout the system.

Banks/Guthrie assumed that there would be [redacted] train movements over the Alomanster Avenue Bridge every day of the week.[37] This includes [redacted]

[35] The bridge crosses the New Orleans Industrial Canal.
[36] *See,* RTC Modeling Report at p. 19.
[37] One additional yard train, [redacted]

[redacted][38]

While the CSXT dispatch data provided in this case is not granular enough to see train movements over the bridge, there is another source of data that identifies the number of trains that operate over the bridge every day. The Alomanster Avenue Bridge is owned by the Port of New Orleans, which operates and staffs the bridge. The bridge operators produce a daily shift report, which shows the number of vessels that move over the Industrial Canal and require the bridge to be opened. The daily shift reports also show the number of trains that operate over the bridge during the shift. While CSXT redacted the details of the trains moving over the bridge, we can still determine the number of trains that moved over the bridge because the bridge operator's daily shift report shows one train for each line of the shift report.

Exhibit No. 5 to this Reply VS summarizes the number of trains that operated over the Alomanster Avenue Bridge during the September 2019 to November 2019 period using the Port of New Orleans daily shift reports. Exhibit No. 5 shows that an average of [redacted] trains per day operate over the bridge with a maximum of [redacted] trains per day and minimum of [redacted] trains per day that moved over the bridge during the study period.

The Alomanster Avenue Bridge operator shift reports are independently produced data that indicate the number of trains moving over the bridge are significantly lower than the number of trains assumed by Banks/Guthrie. We could provide even more detailed analysis with these daily shift reports, but CSXT decided to redact the train data shown. We must infer that CSXT redacted

[38] *See*, Reply e-workpaper [redacted]

this data because it presented a picture different than the picture CSXT wished to portray through the Banks/Guthrie RTC modeling.

5. Adjusted CSXT Train Dispatch Times

As part of an agreement with Amtrak, the Railroads attempted to develop a RTC simulation of the proposed Amtrak operations between New Orleans and Mobile prior to this litigation.[39] For that non-litigation RTC simulation, CSXT provided specific information about the size of each of the CSXT trains operating on the CSXT portion of the line and the "seed" departure or dispatch times to use in the RTC model.[40]

A review of the worksheet used by the RTC modelers in the 2020 non-litigation base case RTC simulation shows that the train sizes included in the final train lists used by the parties are virtually the same as the 2019 Base Case simulation in this proceeding. What did not stay the same from the non-litigation RTC case are the train departure or dispatch times. As shown in Exhibit No. 6 to this Reply VS, Banks/Guthrie moved the dispatch times for [redacted] CSXT non-yard trains in their made-for-litigation 2021 RTC model as compared to the 2020 non-litigation RTC model developed by the Railroads. These [redacted] trains reflect approximately 46 percent of the non-yard CSXT trains included in the RTC model.[41] Of the [redacted] trains with adjusted dispatch times, Banks/Guthrie moved [redacted] trains to a period earlier in the day during the RTC models' most congested operating times.[42]

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[39] *See*, March 26, 2021 letter from Jessica Amunsun, Esquire to Raymond A. Atkins, Esquire and William A. Mullins, Esquire. (App. B)

[40] *See*, [redacted] The seed departure or dispatch time is an origin departure or dispatch time assigned to each train in the RTC model. Any adjustments to the time for randomization are based on this seed dispatch or departure time.

[41] Banks/Guthrie included [redacted] in their RTC model, including Alabama State Dock Trains that they included as foreign trains with CSXT dispatch times [redacted].

[42] In three [redacted] instances, Banks/Guthrie moved the days of the train dispatch, and not just the hours of dispatch.

Banks/Guthrie provided no explanation or support for why they adjusted the dispatch times from the times agreed to by the Railroads for use in the 2020 non-litigation RTC model. An examination of the adjusted dispatch times shows that most of the times were adjusted to times earlier in the operating day when Amtrak trains are expected to run. Moving dispatch times to earlier in the day can create more conflicts and greater delays to all trains on the network.

B. 2039 CASE TRAINS

According to Banks/Guthrie, CSXT and NS provided the expected future train sizes and volumes to use in the RTC model for the 2039 cases. To reflect 2039 train operations, CSXT and NS took different approaches to develop future freight train sizes and volumes. CSXT assumed it would be operating longer trains in 2039, so added railcars to its 2019 merchandise and local trains to account for growth.[43] NS assumed it would be operating more trains across its network to account for future growth instead of the longer trains envisioned by CSXT. Both CSXT and NS assumed that they would operate more yard trains in 2039, but kept them at the same length as the 2019 trains.

Because the 2039 CSXT and NS trains are based on application of the growth factors applied to the 2019 trains that Banks/Guthrie included in their RTC models, the 2039 RTC trains face the same fatal flaws as the 2019 trains discussed above. In addition, the 2039 trains are impacted by the unsupported growth forecasts that we discuss in Section V. below. The Railroads and their witnesses provided no support that can be tested and/or verified for the future growth estimates of their respective traffic volumes beyond vague statements that the growth factors are consistent with what their commercial departments and customers are saying future growth will look like.

[43] *See*, RTC Modeling Report at p. 24.

The issues described above regarding the 2019 RTC train inputs, are only exacerbated for the 2039 trains. All of the same operational issues, unrealistic blockages and dwell times found in the 2019 model are present in the 2039 model. While the 2039 model includes [redacted] trains, a 21 percent increase over the 2019 trains, the greatest growth was applied to the problematic yard trains, while foreign trains, grain trains, and work trains saw zero to three (3) percent growth.[44]

[44] *See*, e-workpaper [redacted]

V. CSXT/NS RELIED UPON ABITRARY AND UNSUPPORTED EVIDENCE

Witnesses in STB proceedings are required to provide support for any evidence they rely upon in providing their opinions.[45] The STB stated in recent proceedings that supporting workpapers should be clear, concise and note the sources of information relied upon and methods of calculations.[46] Parties that do not provide detailed support for their testimony risk having the STB reject their evidence for lack of support.[47] The STB also stated that its preference is for supporting data that is produced in the normal course of business and not that is produced as a result of litigation.[48]

Banks/Guthrie sponsored the RTC cases presented in this proceeding and described in the RTC Modeling Report. The cases are based, in part, on information provided by Railroads' witnesses Rosse/Sinkkanen. Banks/Guthrie and Rosse/Sinkkanen did not provide the sources of their data or detailed worksheets explaining or showing their calculations in many of their analyses. Not providing supporting information makes it virtually impossible to verify their information and calculations and reasonably test their results. Additionally, the Railroads' witnesses relied upon arbitrary standards, without providing any support for their reliance. Without providing support for their evidence or standards, their conclusions cannot be vetted.

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[45] *See*, for example, STB Finance Docket No. 35038, *Tulare Valley Railroad Company – Feeder Line Acquisition – A Line Of The San Joaquin Valley Railroad Co.*, served June 19, 2007 at p. 4; STB Docket No. NOR 42125, *E.I. Dupont De Nemours And Company V. Norfolk Southern Railway Company*, served March 24, 2014 and updated October 3, 2014 at p. 86; and STB Docket No. NOR 42113 *Arizona Electric Power Cooperative, Inc. V. BNSF Railway Company And Union Pacific Railroad Company*, served November 22, 2011 at p. 84.

[46] *See*, STB Docket No. EP 755, *Final Offer Rate Review*, served September 12, 2019 and Docket No. EP 665 (Sub-No. 2), *Expanding Access to Rate Relief*, served September 12, 2019 at note 25.

[47] *See*, STB Docket No. AB 55 (Sub-No. 712X), *CSX Transportation, Inc.—Abandonment Exemption—In White County, Ind.*, served July 1, 1998 at p. 5 and Docket No. NOR 42130 *Sunbelt Chlor Alkali Partnership v. Norfolk Southern Railway Company*, served June 30, 2016 at p. 42.

[48] *See*, STB Docket No. NOR 42142, *Consumers Energy Company v. CSX Transportation, Inc.*, updated March 14, 2018 at p. 82 and STB Docket No. 42022, *FMC Wyoming Corporation And FMC Corporation V. Union Pacific Railroad Company*, served May 12, 2000 at p. 32.

A. THE RAILROADS' EVIDENCE IS UNSUPPORTED

Rosse/Sinkkanen state that they provided the traffic data, growth forecasts and other information that Banks/Guthrie used to develop the RTC cases. A review of both the traffic and other data provided by Rosse/Sinkkanen and the RTC inputs and outputs developed by Banks/Guthrie shows that the Railroads' witnesses did not provide detailed information supporting their opinions and evidence as is explained further below under the following topical headings.

1. CSXT and NS Traffic Growth Forecasts are Unsupported
2. NS Foreign Train Data Is Unsupported, Unverifiable and Inconsistent
3. 2019 RTC Train Data is Unsupported

1. CSXT and NS Traffic Growth Forecasts Are Unsupported

Rosse and Sinkkanen each provided some sort of forecast for future traffic growth on their respective railroads. Ms. Rosse provided a spreadsheet showing estimated future CSXT train lengths and tonnages for some, but not all traffic moving over the Gulf Coast Route.[49] Ms. Sinkkanen provided a document listing additional trains that she expects NS will operate in the future and the number of trains per day by origin and destination.[50] Neither Rosse's nor Sinkkanen's workpapers meet the STB's standards for acceptable evidentiary support.

Ms. Rosse's spreadsheet contains a list of CSXT train profile numbers, train names and future train lengths and tonnage. The spreadsheet does not provide the formulas used to generate the future train lengths and tonnages, the base year train lengths and tonnages used in the calculation, or the source of the base year train lengths and tons. Ms. Rosse's workpaper also contains a general description of the factors she used to estimate future train lengths and tonnages

[49] *See,* Rosse e-workpaper [redacted]

[50] *See,* Sinkkanen e-workpaper [redacted] and [redacted]

but not how those factors were used.[51] After noting this deficiency in a letter to the Railroads' Counsel, the Railroads' noted where a worksheet could be found to address some but not all of the issues.[52] The worksheet pointed to by the Railroads shows the formulas used to develop the future train lengths and tonnages, and what it calls [redacted] but it does not provide a source for this data or show how the current average train lengths and tons were calculated.[53] In addition, [redacted] of the trains included in the worksheet do not show any calculations for future growth, but instead include unsourced values entered into the worksheet.[54] It is not possible to evaluate or validate Ms. Rosse's underlying base data with the information provided.

Ms. Sinkkanen similarly provides no detail or support for her projections of future NS train growth. Her document simply states that certain trains will grow by a certain number of trains per day, but does not provide any internal NS forecast or other forecast to support her claim. She simply asserts that NS will add a certain number of trains in the future. In addition, Ms. Sinkkanen's two (2) supporting documents are inconsistent. While one of her documents indicates that NS will add [redacted][55]

Neither Ms. Rosse's nor Ms. Sinkkanen's forecasts are supported by internal railroad forecasts included in their evidence or supported by any external, independent forecasts of future rail growth on the corridor.[56] In contrast to the Railroads' unsupported claims of future growth,

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[51] *See,* Rosse e-workpaper [redacted]

[52] *See*, November 19, 2021 letter from Matthew J. Warren, Esquire to Kali N. Bracey, Esquire. (App. A)

[53] *See*, [redacted] The workpaper does not say whether the [redacted]

[54] *See*, [redacted]

[55] Compare [redacted]

[56] Compare this to Banks/Guthrie's use of a U.S. Government forecast of future maritime growth to support their calculation of future drawbridge opening times. *See,* RTC Modeling Report at p. 29.

experts employed by the railroad industry demonstrate that railroads have seen negative growth over the last 13 years, and any future growth is dependent upon the railroads changing their current operating model. Ms. Adrienne Bailey, a partner with the consulting firm of Oliver Wyman,[57] recently noted at the RailTrends 2021 conference that revenue ton-miles have decreased 11% and total train-miles have fallen 23% between 2006 and 2019.[58] Ms. Bailey stated that the railroads' traffic could continue to decline in the future if they do not change their current operating practices.[59]

The Energy Information Administration ("EIA"), a department of the U.S. Department of Energy, routinely develops forecasts of future economic activity, including rail traffic forecasts.[60] EIA projected in its 2021 Annual Energy Outlook ("AEO"), the most current long-term forecast available, that rail traffic, as measured in ton-miles, is expected to grow at an average rate of 0.68 percent per year between 2020 and 2039.[61] This is far lower than the 1.5 percent unsupported, projected annual growth rate used by CSXT and NS.[62]

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[57] Oliver Wyman routinely files evidence before the STB on behalf of individual railroads and the railroad industry. *See,* STB Docket No. EP 705, *Competition in the Railroad Industry*, Initial Comments of the Association of American Railroads, filed April 12, 2011; STB Ex Parte No. 711 (Sub-No. 1), *Reciprocal Switching*, Opening Comments of the Association of American Railroads, filed October 26, 2016; and STB Docket No. FD 36514, *Canadian National Railway Company, Grand Trunk Corporation, And CN's Rail Operating Subsidiaries – Control – Kansas City Southern, The Kansas City Southern Railway Company, Gateway Eastern Railway Company, And The Texas Mexican Railway Company*, Joint Motion for Approval of Voting Trust Agreement, filed May 26, 2021.

[58] *See,* "*The Future Of The Rail Industry Is Up For Grabs, Consultant Says*" Trains Magazine, November 22, 2021. Accessed on November 29, 2021 at https://www.trains.com/trn/news-reviews/news-wire/the-future-of-the-rail-industry-is-up-for-grabs-consultant-says/.

[59] *Id.*

[60] EIA collects, analyzes and disseminates independent and impartial energy information to promote sound policymaking, efficient markets and public understanding of energy and its interaction with the economy and the environment. EIA is the nation's premier source of energy information and, by law, its data, analyses and forecasts are independent of approval by any other officer or employee of the U.S. government. The STB routinely relies upon EIA data and forecasts as part of its adjudications.

[61] *See,* Reply e-workpaper "EIA aeotab_7.xlsx" that was retrieved from EIA's website on November 29, 2021 at https://www.eia.gov/outlooks/aeo/tables_ref.php.

[62] *See*, Rosse/Sinkkanen VS at p. 12.

2. NS Foreign Train Data Is Unsupported, Unverifiable and Inconsistent

Ms. Sinkkanen states that she provided a file that documented one week of observed foreign train movements on the NS New Orleans line, including on-network times, routing and dwell.[63] A review of Ms. Sinkkanen's supporting document shows that it is unsupported, unverifiable and inconsistent.

The document produced by Ms. Sinkkanen, [redacted] and contained in Ms. Sinkkanen's workpapers provided in this proceeding, contains [redacted] tables ostensibly showing the number of [redacted]

There are many problems with this data. First, Ms. Sinkkanen provides no source documents or underlying information that she used to develop these tables. She also does not state who collected this data and for what purpose. As indicated above, the STB prefers data collected in the normal course of business. There are also no supporting data or calculations shown for the [redacted] included in the document. In fact, the tables do not provide any detailed [redacted]

The field observations included in the document are also unsupported and inconsistent with other data. For example, [redacted]

[63] *See,* Rosse/Sinkkanen VS at p. 5.

[redacted] This is true of other days as well. Either the field observations are incomplete or the field observations took place at a different time than the data included in the tables. Either way, the data is unsupported and inconsistent.

3. <u>2019 RTC Train Data is Unsupported</u>

Banks/Guthrie state that CSXT and NS provided them with train data for the September 2019 to November 2019 time period to determine the train routes, volumes and departure times to include in the RTC cases.[64] They also claim that they used this actual data to update a train file provided to them by CSXT.[65] A review of the RTC workpapers produced by Banks/Guthrie show they provided no support for many of the calculations included in their RTC input files, including no support for train lengths and tonnages for each train. Moreover, the Railroads' outside Counsel confirmed that there are no workpapers that support their train development.[66]

While Banks/Guthrie acknowledge that CSXT and NS provided real-world train event data as evidentiary support, Banks/Guthrie failed to present any connection between the provided real-world data and the simulations that are allegedly based on that real-world data. Instead, Banks/Guthrie describe a method in which they haphazardly "developed" trains from the provided real-world data, when in fact there was no need to develop anything, they simply needed to model the provided trains.

For each case that they developed, Banks/Guthrie included Excel spreadsheets that contain the information used to develop the [redacted]

[64] *See,* RTC Modeling Report at p. 23.
[65] *Id.* at p. 88.
[66] *See*, November 19, 2021 letter from Matthew J. Warren, Esquire to Kali N. Bracey, Esquire. (App. A)

[redacted]

It is possible to follow the data Banks/Guthrie used in their Excel files to develop the [redacted] files used in the RTC model, but much of the data contained in the Excel spreadsheets is unsupported. In simple terms, the data that Banks/Guthrie used to develop their [redacted] files used in the RTC model cannot be linked back to any source document. For example, Banks/Guthrie do not provide any documentation or links to the [redacted] Because the 2039 RTC case files are based on the 2019 RTC case files, it is also not possible to trace much of the information in the 2039 files back to supporting documents.

It is also not possible to link train departure times included in the Excel files that produce the RTC inputs. Banks/Guthrie state that they relied upon historical information from CSXT to develop departure times for CSXT trains in the RTC cases and relied upon data provided by and discussions with NS to develop NS departure times. Banks/Guthrie included in their workpapers a file named [redacted] which appears to develop [redacted] and a file named [redacted] which appears to develop [redacted].[67] Banks/Guthrie provided no documentation for how the

[67] These two (2) workpapers also appear to develop [redacted]

data in the [redacted] link to the Excel files used to develop the train input files.

In STB cases involving the use of economic or operating models, the presenting party customarily links Excel files included in its workpapers so that the opposing party in the proceeding, and the STB, can follow the flow of information and document the source of information used. For example, in maximum reasonable rate cases, the STB requires parties to link Excel files and provide detailed documentation about hard-coded sources of data used in the models.[68] Banks/Guthrie failed to meet the minimal standards for linking and documenting the data that they used to develop their train input files to the RTC cases that they presented. The single page Appendix G of the RTC Modeling Report that provides the RTC assumptions underlying the Banks/Guthrie RTC runs is wholly inadequate and does not come close to providing actual support.

To develop trains for their model, Banks/Guthrie needed to translate the real-world train information into RTC input data, add passenger trains according to Amtrak's provided train schedules and add a reasonable amount of foreign trains to create a well-documented, logical train list for their simulations. Instead, Banks/Guthrie detached its model from the real-world data that it possessed, inflated the number and frequency of the trains involved and dispatched those trains at times designed to create the greatest number of conflicts and delays.

Outside Counsel for the Railroads stated that there are no workpapers to support the development of the RTC train files stating "there is no formula, document, or workpaper that captures the iterative process between the RTC Modelers and CSXT with respect to creating the

[68] *See*, Ex Parte No. 347 (Sub-No. 3), *General Procedures For Presenting Evidence In Stand-Alone Cost Rate Cases*, served March 12, 2001 at pp. 4-5.

.TRAIN file."[69] As noted above, the STB consistently rejects, in all types of proceedings, evidence that is not supported and that all parties to the case cannot test and verify.

B. THE RAILROADS' EVIDENCE IS ARBITRARY

In addition to relying upon unsupported and unverifiable data, the Railroads' witnesses also made arbitrary decisions when developing their evidence without providing appropriate support for their decisions. The Railroads' witnesses set arbitrary performance standards that are not documented or tied to any rule or standard. We discuss these issues below under the following topical headings:

1. 95% On-Time Performance
2. 20 Minute Limit to Crossing Blockage
3. CSXT Maintenance Outages

1. 95% On-Time Performance

The FRA issued a new rule in December 2020 pursuant to 49 USC 24308 to measure intercity passenger train service performance.[70] The rule specified that Amtrak must obtain a customer on-time performance factor ("OTP") of at least 80 percent for any two (2) consecutive calendar quarters while on a host railroad, or the STB can begin an investigation as to why this standard cannot be met, and identify any potential changes to operations to enable Amtrak to meet this standard.

Banks/Guthrie claim that to meet the 80 percent OTP standard in the real world, the RTC simulation of the Amtrak operations on the Railroads' networks must use a 95 percent OTP. According to Banks/Guthrie, the 95 percent OTP is needed because the RTC model simulates an operating environment absent any disrupting events routinely encountered by passenger and

[69] *See*, November 19, 2021 letter from Matthew J. Warren, Esquire to Kali N. Bracey, Esquire. (App. A)
[70] *See,* 49 CFR 273.

freight railroads in the real world, and that to reach an 80 percent real-world OTP, a 95 percent RTC OTP is required.[71]

Banks/Guthrie's use of a 95 percent OTP metric is completely arbitrary. Banks/Guthrie provided no analyses or support for their claim that a 95 percent RTC OTP corresponds to an 80 percent real world OTP. Banks/Guthrie simply assume that the RTC simulation requires a higher OTP than actual operations.

In contrast, other studies using the RTC model found that there is little difference between real world operations and RTC simulations of the same part of a rail network. For example, the Florida Department of Transportation undertook a study to reintroduce commuter passenger service along an 85-mile stretch of the Florida East Coast Railway ("FEC") corridor between downtown Miami and Jupiter, FL.[72] The study included a RTC simulation of the proposed rail line, and to validate the study, the study programmers calibrated the RTC model results against real-world operations. The study found that average train run times in the RTC model varied by approximately one percent from actual rail operations over the same section of the FEC network.[73]

In another example, the New York State Department of Transportation undertook a similar analysis of its proposed High Speed Rail Empire Corridor Program, which seeks to implement high speed passenger rail service between New York City and Buffalo, NY.[74] To help validate the RTC model used in this project, the modelers compared the OTP for actual Empire Corridor West

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[71] *See,* Banks/Guthrie VS at p. I-25. A similar claim is made in the RTC Modeling Report at p. 32 and in the Rosse/Sinkkanen VS at p. 9.

[72] *See,* http://tri-railcoastallinkstudy.com/about.php. The study was originally named the South Florida East Coast Corridor Study, then changed to the Tri-Rail Coastal Link Study before being finally named The Coastal Link Study.

[73] *See,* Tri-Rail Coastal Link Study Preliminary Project Development Report, April 2014 at p. 5. A copy of the report is contained in our workpapers at "Tri-Rail Coastal Link Study Appendix 3_April2014.pdf."

[74] *See,* https://www.dot.ny.gov/empire-corridor.

operations to the OTP from a simulation of the same corridor. The modelers found the OTP between the real-world operations and the RTC to be reasonable.[75]

The real-world statistics in the two (2) studies summarized above take into consideration all of the factors that would impact rail operations, including adverse weather events, mechanical failures and blocked rail crossings. Given that independent studies found no significant differences between actual rail operations and well-constructed RTC models, there is no reason to rely upon Banks/Guthrie's arbitrary 95 percent OTP standard.

2. <u>20 Minute Limit to Crossing Blockage</u>

All of the Banks/Guthrie RTC models include a 20-minute limit for trains to occupy the road crossings for the purposes of conflict avoidance. This limit, while a recommended "goal" for Class I railroads, is frequently exceeded in the real world. There are two (2) fundamental problems with enforcing this 20-minute limit in the RTC simulations. First, this 20-minute limit was applied universally to all road crossings in the model, regardless of location or the expected usage of the road in question.

For example, Figure No. 1 below shows a location where a 20-minute maximum dwell may be impractical, if not impossible. The only road crossing is a gravel access road, and it is conceivable that trains entering the convention center would need to dwell at this location. In addition, the provided CSXT track charts do not show a road crossing at this location. However, like all other road crossings in the Banks/Guthrie RTC model, no part of any train can occupy this location for more than 20 minutes.

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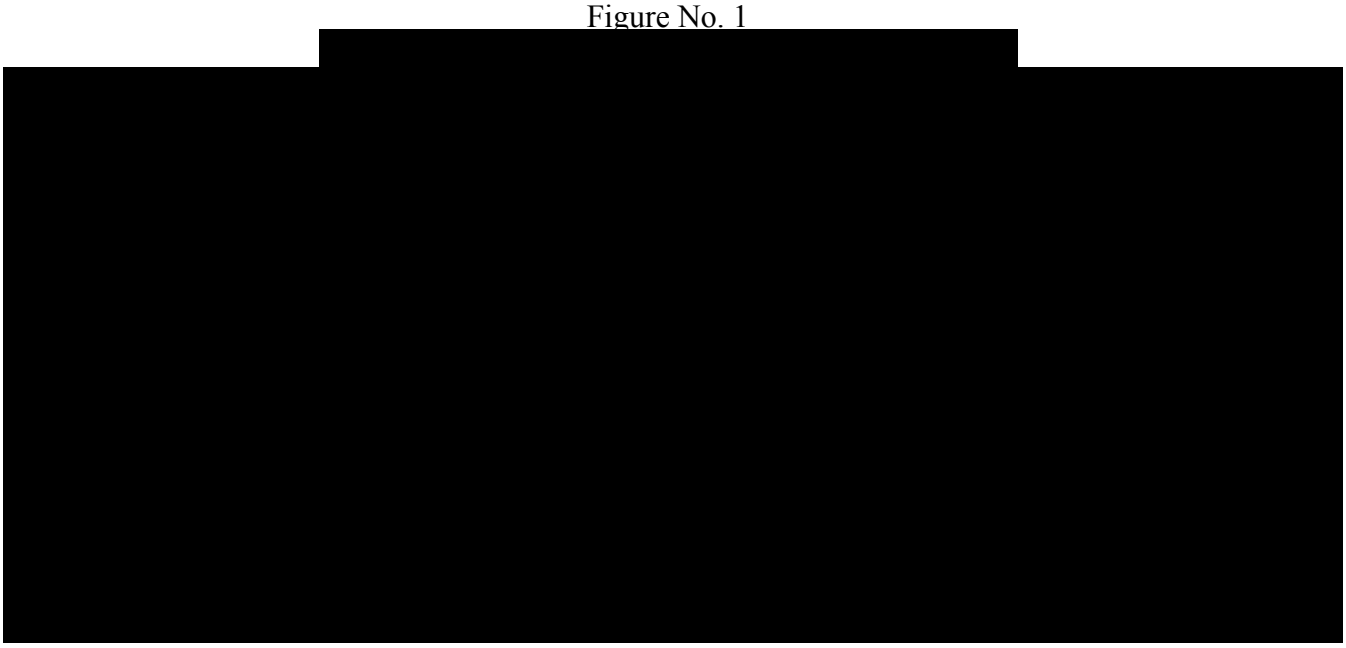
[75] *See,* Draft Environmental Impact Statement, Appendix D at p. D-41. A copy of this document is included in our workpapers at "Rail Network Operations Simulation - High Speed Rail Empire Corridor Program.pdf." The modelers found that the real-world OTP averaged 57 percent over an entire year, while the simulated OTP averaged 47 percent over the peak week for the year. Because the real-world statistics measured an entire year as compared to the simulation of a peak week, they found that there was no practical difference between the real-world results and the RTC simulation results.

Figure No. 1



Another problem with the 20-minute dwell limit for road crossings is that Banks/Guthrie modeled every road crossing in the model as being [redacted][76] In Figure No. 1 above, if the road was [redacted], it would run right through the convention center as well as the neighboring building. This means that the Banks/Guthrie model not only enforces this unrealistic restriction upon all trains, but also greatly limits the ability of trains to fit between road crossings given that each simulated "road" is nearly as wide as [redacted]

3. <u>CSXT Maintenance Outages</u>

In any RTC simulation, the user may model track outages in the form of a permit. Permits in the RTC can be used to limit what type of train may traverse a track, or be used to reduce the speed limit during a particular time of day, or they can be used to completely shut down a track thereby preventing all trains from crossing. These permits are the standard method for modeling maintenance-of-way track outages, such as a broken switch or a broken rail. Although such

[76] Each road crossing is [redacted]

infrastructure failures do not happen frequently, it is appropriate to include a small number in a RTC simulation in order to be conservative and consider worst case scenarios.

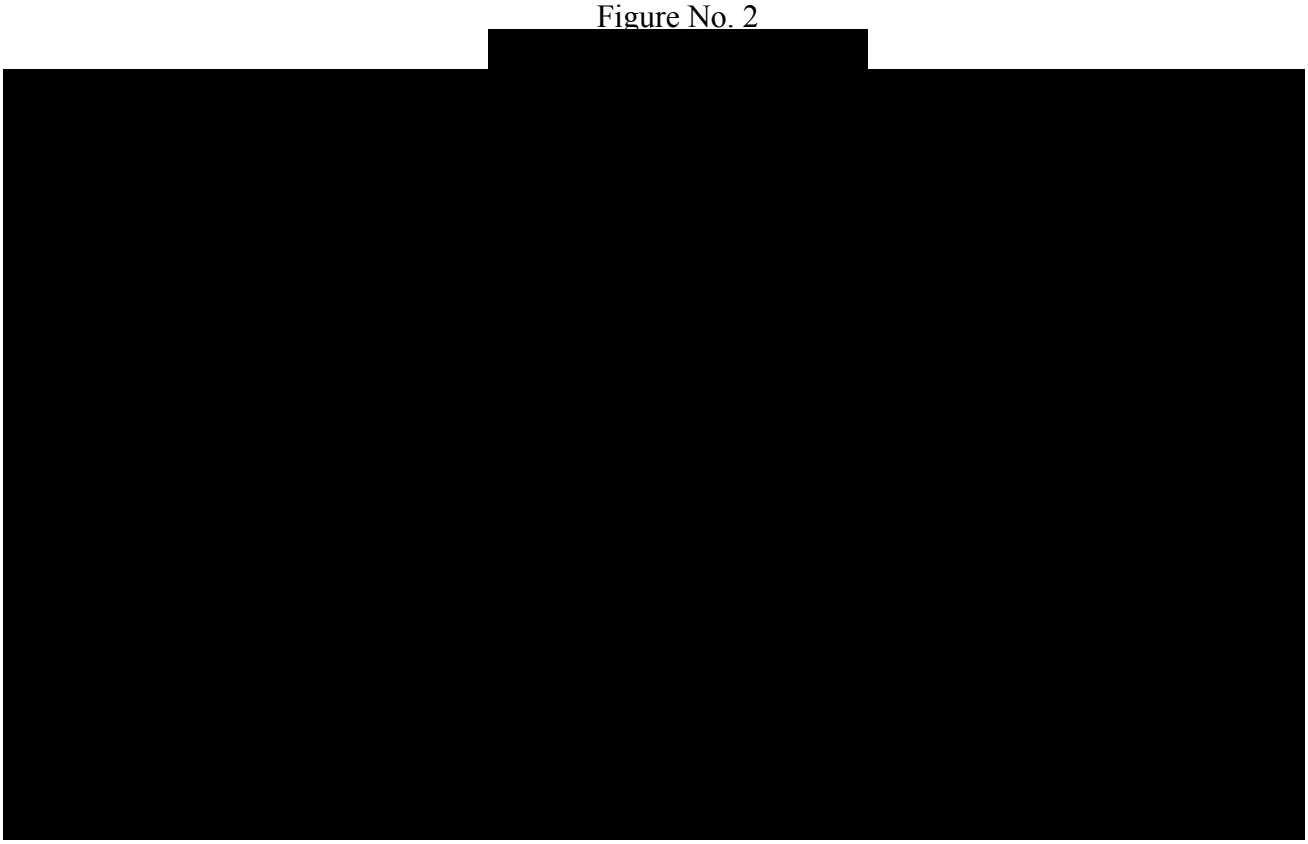
In this case, the Banks/Guthrie RTC model includes an incredible [redacted] maintenance-of-way outages. By modeling [redacted] maintenance outages into the 14-day simulation period, they are effectively claiming (without any support) that the Gulf Coast network, which is 144.1 miles in length, requires that some portion of track be completely shut down more than [redacted] These outages are unrealistic, greatly overstated and not supported by proper documentation. This issue is discussed further in Section VII.B. below.

VI. CSXT/NS OVERSTATE THE REQUIRED INFRASTRUCTURE NECESSARY TO ACCOMMODATE AMTRAK OPERATIONS

As an initial matter, the infrastructure included in the RTC model may have been necessary to accommodate all of the simulated trains in the Banks/Guthrie simulations, but as described above, the trains in the Banks/Guthrie simulations do not tie to the actual trains that moved in the real-world in 2019. To demonstrate the amount and condition of the infrastructure, Banks/Guthrie would need to submit a RTC model that includes only the real-world trains that moved along the issue line plus the proposed Amtrak trains. The current Banks/Guthrie simulations do not present the results of such a model.

Even if the current simulations included the proper number of trains, the track in the simulations does not reflect how Class I railroads would utilize the available track. Figure No. 2 below is a RTC snapshot of [redacted], which is just [redacted], showing one example of unutilized track in the Banks/Guthrie model. This snapshot was developed using a RTC tool that allows the user to color-code track to show how many trains utilized the track over the course of the simulation. In the Figure No. 2 snapshot of the [redacted], purple track represents track that was traversed by [redacted] in the Banks/Guthrie simulations. Black track represents track that was never used by a single train.

Figure No. 2



[redacted] is a major yard included in the Banks/Guthrie RTC model and is a location of "unique challenges" with the proposed Amtrak corridor.[77] [redacted] has a double-track main line running through the middle of the yard, is located at a major junction, and is consistently adjacent to train conflicts in the Banks/Guthrie simulations. In evaluating these conflicts, we determined that not a single track in the yard is utilized even once as part of the Banks/Guthrie simulations. If this simulation were coded properly, trains passing through or near this yard would utilize the substantial yard capacity for conflict avoidance. Instead, the Banks/Guthrie model does not allow any trains to utilize the capacity available at this location, forcing the trains to seek other locations in the network to dwell for regular operations, or to avoid oncoming traffic in the event of conflicts.

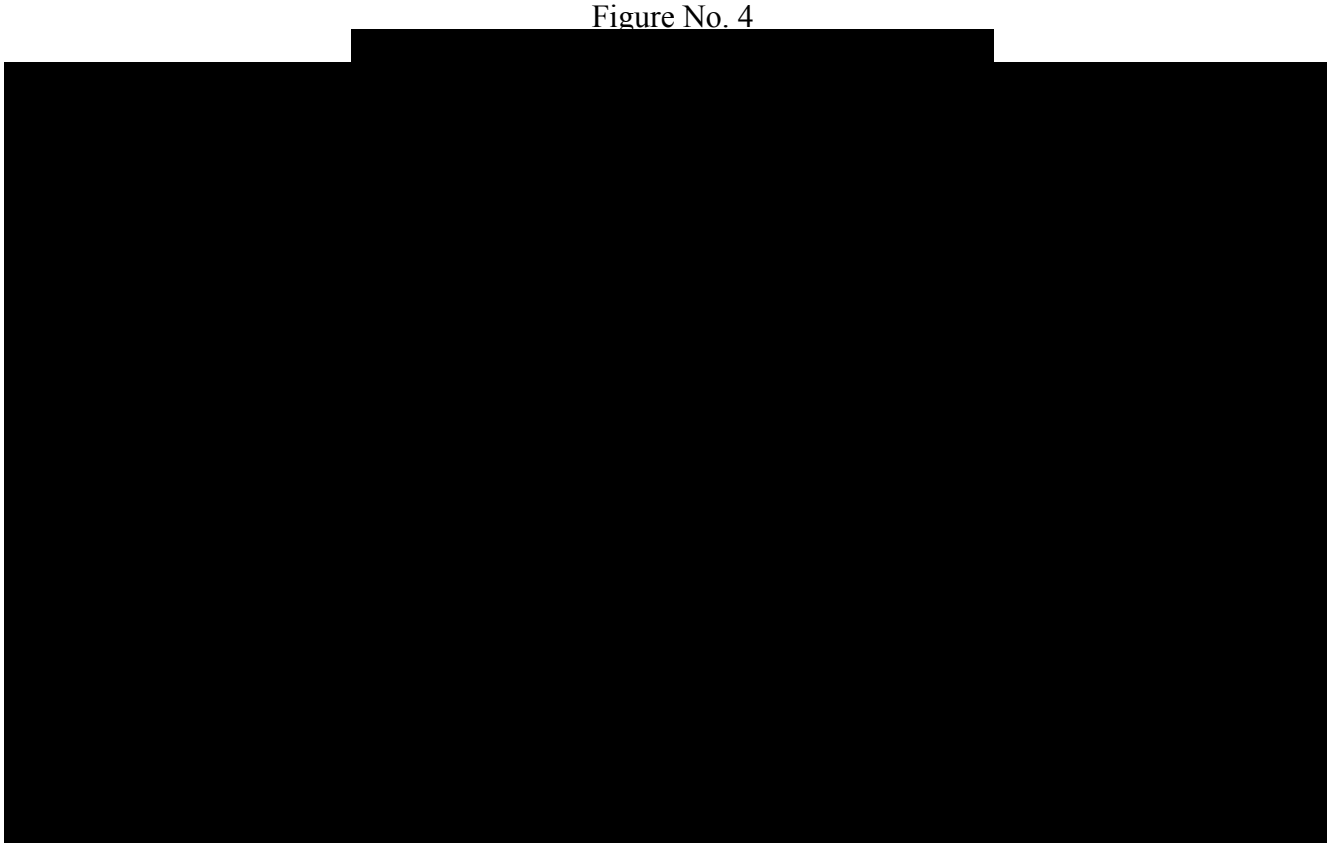
[77] *See*, Rosse/Sinkkanen VS at p. 4.

There are several locations in the Banks/Guthrie RTC model that, similar to [redacted], do not properly utilize available network capacity. Figure No. 3 below shows CSXT's [redacted], ostensibly the busiest yard in the network. This yard has [redacted] that are never used during the entire simulation period.

Figure No. 3

The issue of unutilized capacity is not limited to yards in the Banks/Guthrie RTC model. There are several locations with strategically placed passing sidings near major junctions and yards, which despite the dispatch difficulty of the Banks/Guthrie model, were never used by a single train. Figure No. 4 below shows two (2) passing/staging sidings near [redacted] that were never used. The unutilized capacity in the Banks/Guthrie model is not due to the inability of the trains to take advantage of the capacity and it is not due to dispatching logic in the RTC model. Rather, it is due to RTC modeling mistakes.

Figure No. 4



These two (2) sidings are located at a critical junction and would certainly be utilized if modeled properly. The reason these sidings are not utilized in the Banks/Guthrie model is due to a modeling error where all trains originating from points south of this location enter the RTC network at [redacted] This NODE contains the switch leading to the siding. In effect, every train that enters the network from points south of [redacted] cannot use the passing siding to avoid conflicts because they are initialized in a position where they foul the turnout preventing them from using the siding. We identified [redacted] that traverse this section of track in the peak period, but are unable to use the passing sidings.[78] Exhibit No. 7 includes additional screenshots of locations of unused track in the Banks/Guthrie RTC model and track that exists in the real world that was excluded from the model.

[78] *See*, [redacted]

This modeling error of positioning trains where they prevent access to turnouts is pervasive in the Banks/Guthrie RTC simulations. In the [redacted] case, we observed at least 62 instances where this occurs.[79] This modeling error alone is significant enough to critically handicap the available capacity of any rail network and is one of the fundamental RTC modeling errors to avoid. Exhibit No. 8 includes additional screenshots of trains dwelling on top of switches and other train modeling errors.

[79] *See*, e-workpaper [redacted]

VII. CSXT/NS DELIBERATELY HINDER THE PERFORMANCE OF THE RTC SIMULATIONS

Banks/Guthrie claim that the RTC simulations they submitted are "conservative," reflect "typical operations," and that the Base Year inputs and assumptions have been validated by experts from both CSXT and NS.[80] Rosse/Sinkkanen state that they validated the RTC Modelers' [redacted] as to their respective portions of the [redacted] corridor.[81] Whether or not the inputs and assumptions used by Banks/Guthrie in the models were supported by CSXT and NS employees, we find their claims that the simulation inputs are conservative and representative of typical operations to be demonstrably false. In fact, many of the RTC simulation inputs proffered by Banks/Guthrie are so unusual and out of the norm of RTC modeling, it is evident that they deliberately produced a model that included unrealistic congestion, underutilized infrastructure, unrealistic blockages, unrealistic operations, overextended dwell times, and inefficient dispatching options. The purpose of the RTC simulation in this case is to represent a fair and accurate picture of the railroad infrastructure being simulated, that is not what Banks/Guthrie have done.

In any RTC simulation, there are dozens of settings within the RTC model that can be adjusted that will substantially change the results even if the infrastructure and trains in the model remain unchanged. For example, RTC model users can adjust the dispatch logic to instruct the RTC model how to handle conflicts within the model, how to prioritize train scheduling when conflicts are encountered, which types and locations of track are acceptable locations to stop a train, and even the walking speed of train crew members. These settings, often overlooked, can cause a simulation to succeed or fail.

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[80] *See*, RTC Modeling Report at pp. 22-24.

[81] *See*, Rosse/Sinkkanen VS at p. 11. It bears noting that Rosse/Sinkkanen validate the RTC model from New Orleans to Mobile, but not Mobile to Montgomery, which Banks/Guthrie included in their RTC models.

Banks/Guthrie unnecessarily adjusted many of these settings, negatively affecting the performance of every train in the simulation. These Banks/Guthrie manipulated setting adjustments are discussed below under the following topical headings.

A. Unrealistic Operations
B. Unrealistic Blockages
C. Improperly Modeled Dwell Times

A. UNREALSISTIC OPERATIONS

One of the adjustable settings in the RTC model is the train crew walk speed. This setting impacts the amount of time a train will dwell in the event that the simulated train crew must walk from one end of the train to the other for a turnaround move, walk to a manual track switch to throw the switch, walk to the end of the train to decouple cars, etc. By default, this walk speed is set to three (3) MPH, an already conservative number.[82] Inexplicably, Banks/Guthrie reduced the crew walk speed to [redacted]. We can only conclude that this adjustment is part of a larger, cumulative effort to slow down everything possible in the model resulting in the need for more infrastructure to handle the issue traffic.

Another adjustable setting determines whether, in the event of a conflict between two (2) trains, the simulated dispatcher will favor sending the first arriving train into a passing siding where it will sit allowing the oncoming train to pass unimpeded, or alternatively, the simulated dispatcher will stop the first train on the main line where it must sit and wait for the oncoming train to slowly pull onto the passing siding, then come to a complete rest while slowly clearing the main line before the first train is allowed to proceed. Essentially, this optional setting requires both trains to come to a complete stop in the event of a conflict rather than having one of the trains stop and

[82] *See*, for example, [redacted]

allowing the other to continue unrestricted. Banks/Guthrie [redacted]

Banks/Guthrie also model train delays from CSXT train event data as daily operations. Stated differently, if a real-world CSXT train was delayed or experienced a conflict, Banks/Guthrie included that delay in its model rather than letting the RTC model determine whether the train encounters a conflict. Banks/Guthrie included some of these real-world conflicts in their model. Including these real-world conflicts creates downstream effects where these trains are stopping to avoid a conflict that is not there and creating conflicts in the simulation for no reason.

For example, train [redacted] dwells at the [redacted] for 59 minutes. There are [redacted] trains in total in the model that dwell at the [redacted] for periods ranging between [redacted] and [redacted].[83] It would be highly unusual for a Class I railroad practicing precision railroading to routinely park trains on the main line for interchange purposes. Crew changes, inspections and other interchange operations would typically take place in the nearest yard. Indeed, when we review the CSXT train event data, we see that [redacted], and that was likely due to a conflict with [redacted] traffic. All other trains interchanging with [redacted] traversed this interchange without pause.[84]

B. UNREALISTIC BLOCKAGES

In RTC simulations, there is a RTC input file labeled ".PERMIT" that contains all of the track outages simulated in the model. These outages represent outages for maintenance windows, raised drawbridges, broken rails, or other such events.

In some cases, rather than blocking a track entirely, a RTC user can model a "permit" to allow a single traffic type to traverse the track while preventing all other traffic from moving. The

[83] *See*, [redacted]
[84] *See*, [redacted]

Banks/Guthrie RTC simulations [redacted]. Banks/Guthrie allegedly included these permits to assure that [redacted] would achieve uninterrupted service and meet the necessary OTP levels for [redacted]. There are other settings in the RTC model, specifically train prioritization settings, which will perform this task without shutting down the entire system to other traffic.

By programming these permits for passenger trains, Banks/Guthrie effectively prevented all freight traffic, and other non-passenger traffic, from traversing the system at any time while these permits were active. By setting a much higher priority level for [redacted], Banks/Guthrie could have achieved the same result without preventing freight traffic from using the network. The only impact of including these Banks/Guthrie permits was to slow down non-passenger traffic.

Table 4 below illustrates the impact of this problem.

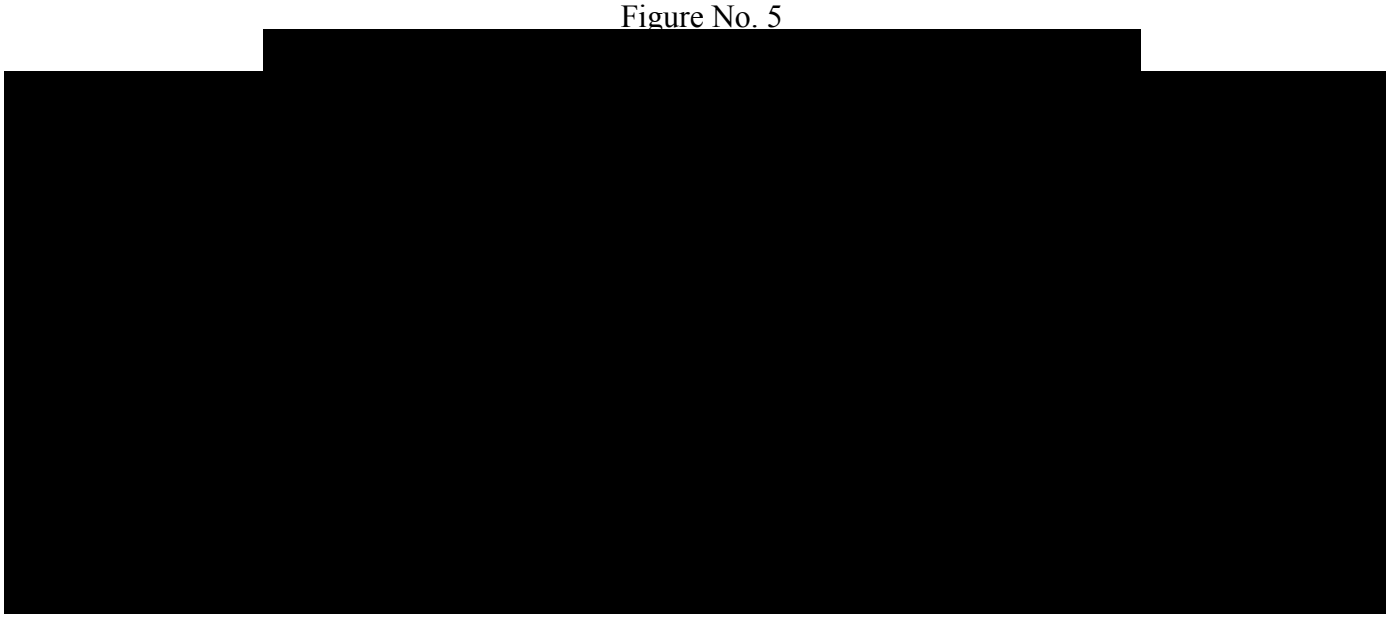
Table 4

[redacted]

As Table 4 above shows, Banks/Guthrie included [redacted] track outages accounting for [redacted] hours of time that would allow only passenger trains to traverse the system (Table 4, Line 1.d.), preventing all other traffic types from moving. These [redacted] outages cover more than [redacted] route miles of track. Given these permits, it would not be possible for any non-passenger trains to achieve the same service levels that they would realize without them. This would be true regardless of the level of congestion or available capacity of the line and is entirely unnecessary and inappropriate in RTC modeling.

Figure No. 5 below illustrates the absurdity of these maintenance-of-way permits. In Figure No. 5, two (2) Local trains, [redacted] and [redacted], are parked on a siding because maintenance is being performed to the west (shown as pink track in Figure No. 5) and it is not safe for them to traverse the track currently undergoing maintenance. Meanwhile, [redacted] train, [redacted], theoretically full of passengers, is allowed to traverse the track undergoing emergency maintenance, at full speed.

Figure No. 5



The only programmed outages in the Banks/Guthrie model that apply to the passenger trains are those related to bridge activity. Specifically, the [redacted] bridge openings, while unrealistically high in number, properly impact all traffic (Table 4, Column (2), Line 2).

While the outages identified in Table 4 above do not impact the passenger trains, they severely hinder the non-passenger trains. The system being modeled is not a particularly large RTC network, totaling [redacted] route miles. However, the Banks/Guthrie model includes [redacted] track outages (not including drawbridge outages) that cover [redacted] miles of track, effectively shutting down some portion of track for [redacted] hours during the [redacted] modeling period.

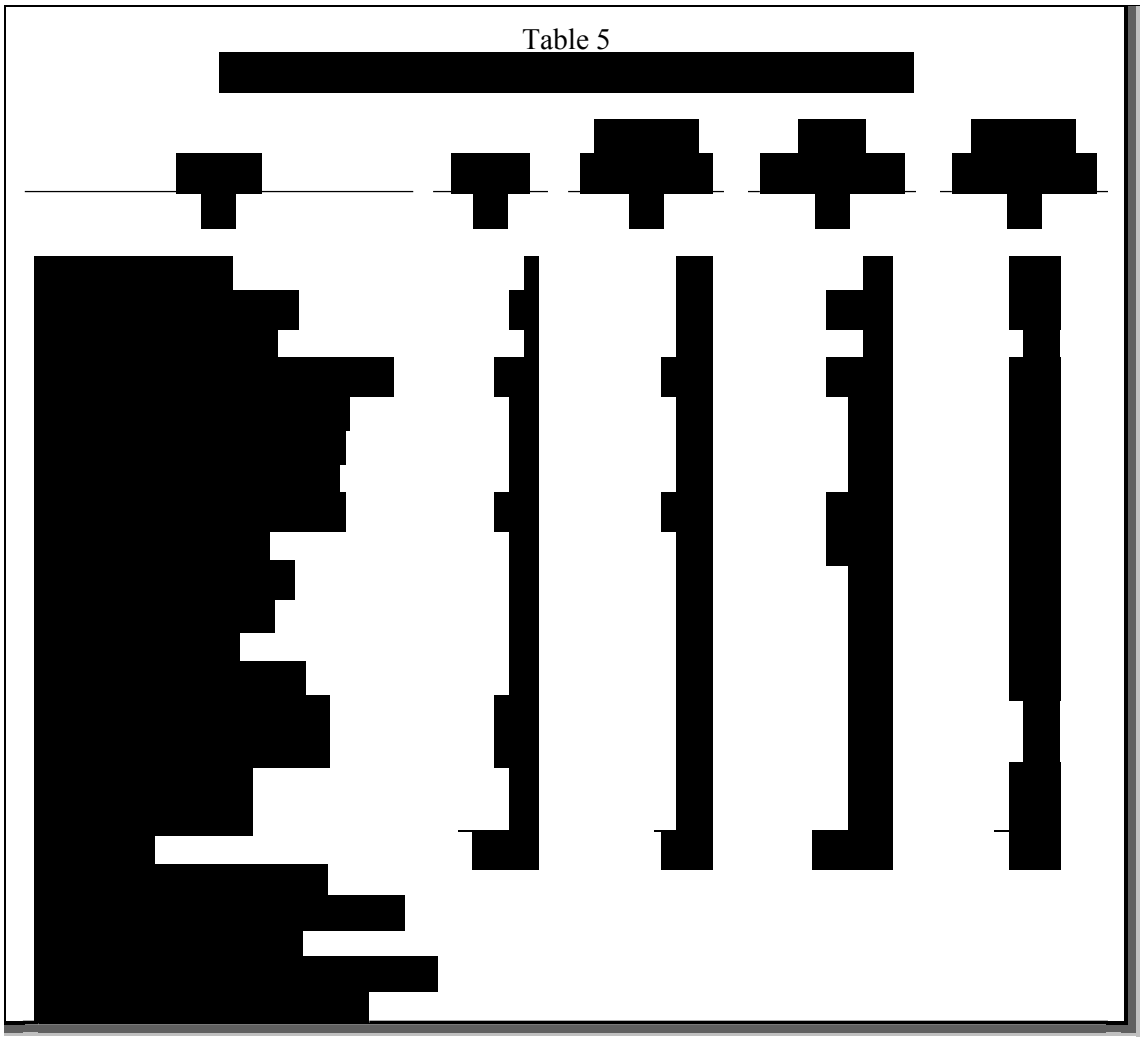
There are only [redacted] in the [redacted] modeling period, which means that on average, for every hour of simulation time there are [redacted] in the model that are completely shut down to non-passenger traffic. As an example of this issue, the [redacted] simulation includes [redacted] maintenance windows between Milepost [redacted] and [redacted] during the [redacted] period.[86] According to Banks/Guthrie, this [redacted] stretch of track needed repair every other day in 2019. This is not representative of track in a "state of good repair" and is just one example of the type of track outages programmed into the Banks/Guthrie model.

Table 5 below summarizes the bridge activity in the 2019 Banks/Guthrie RTC simulation.

[redacted]

[86] *See*, [redacted]

Table 5



As Table 5 above illustrates, the bridges in the 2019 Banks/Guthrie RTC simulation account for [redacted] of inaccessible track in the model, all due to raised drawbridges. Some of the bridges in the model are scheduled to "open" more than [redacted] in the modeling period. Although there is almost no documentation to support these bridge openings, the limited documentation that was provided disagrees with what is included in the RTC model. Specifically, CSXT provided redacted Bridge Logs for a single bridge, the [redacted] We reviewed the bridge logs and identified how often the bridge was opened each

[redacted]

day during the peak period. Our review shows that over the course of the [redacted] peak period, the bridge logs indicate that the [redacted] was opened [redacted] times for an average of [redacted] openings per day.[88] However, as shown in Table 5 above, the [redacted] in the Banks/Guthrie RTC simulation [redacted] opens [redacted] times or an average of [redacted] times per day.

The bridge delay numbers included in the Banks/Guthrie RTC model are egregiously high and wholly unsupported by the evidence. It appears from [redacted] of the RTC Modeling Report that the modelers used uniform distributions of bridge openings rather than actuals creating more blockages than occurred in the real world. For example, in 2019, the actual data shows the [redacted] opening between [redacted] Yet, inexplicably, the RTC modelers elected to include openings every hour [redacted][89]

C. IMPROPERLY MODELED DWELL TIMES

The Banks/Guthrie 2019 RTC model includes [redacted] different train events with dwell times exceeding [redacted]. These types of dwell times are typically associated with operations that take place within a yard. For example, a train inspection and refueling might take several hours and is typically performed while the train sits in a major yard.

However, most of these extended dwell times within the Banks/Guthrie 2019 RTC simulations occur on the main line or on a passing siding, artificially absorbing network capacity

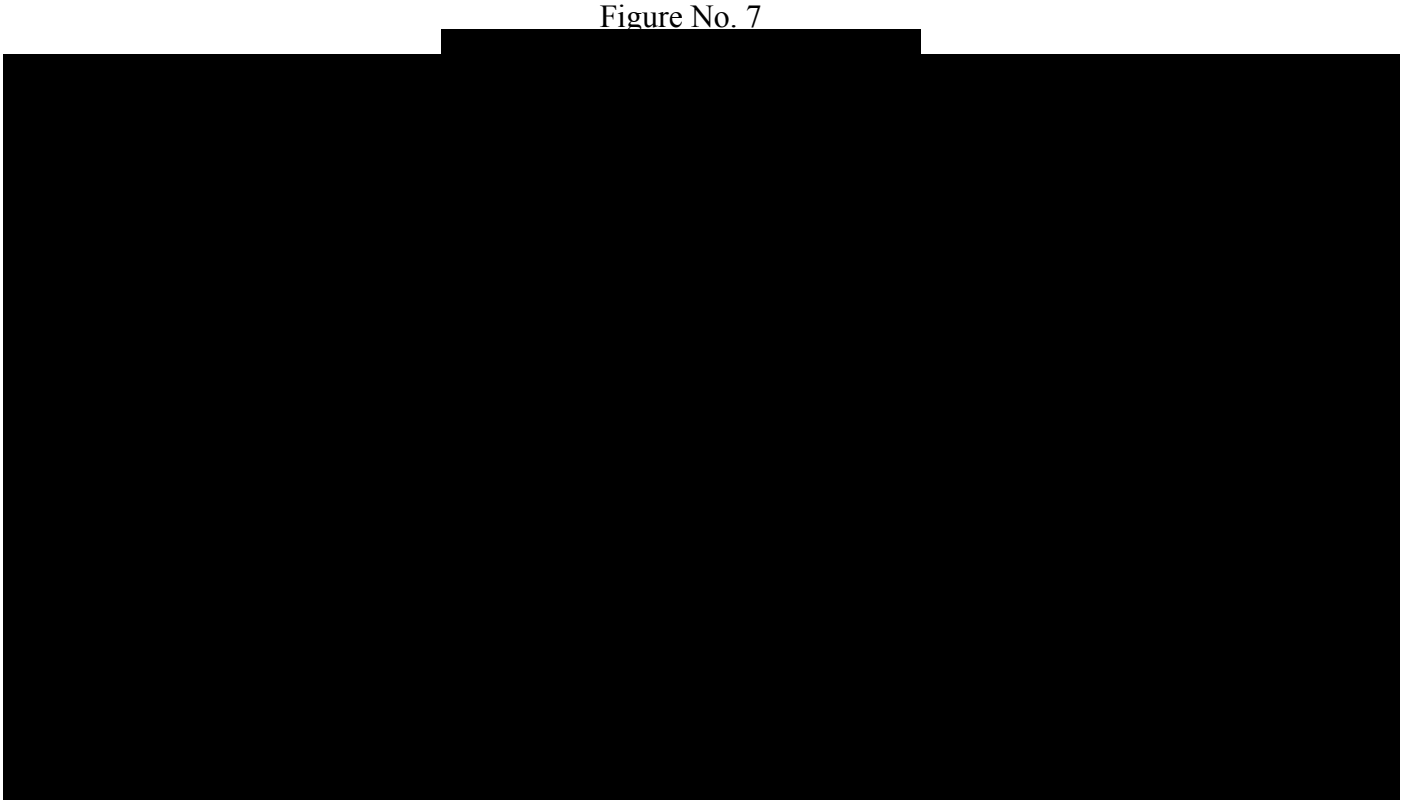
[88] *See*, e-workpaper [redacted]
[89] *See,* RTC Modeling Report at p. 70.

that should be available to other traffic. For example, Figure No. 6 below shows train [redacted] stopped at milepost [redacted] for more than [redacted].

Figure No. 6

Train [redacted] begins as a "light" locomotive, departing its origin 11 miles from this location with zero loaded or empty cars attached. When it arrives at milepost [redacted], it dwells for [redacted] hours and departs with [redacted]. Presumably, the [redacted] locomotive arrived light at milepost [redacted] and began switching operations at the nearby [redacted] industrial complex pictured below in Figure No. 7.

Figure No. 7



While there is nothing unusual about this activity, it must be noted that the size of the industrial complex far exceeds the small siding included in the Banks/Guthrie model. To properly model yard switching activity, Banks/Guthrie should have included this facility as part of the network so that the [redacted] could dwell within the facility while it was performing switching activities. If a local or yard train is performing switching operations, it might "dwell" in the yard even though it is not actually dwelling at all, it is moving around the yard pulling and spotting strings of cars to prepare them for transport. Instead, Banks/Guthrie modeled the [redacted] dwelling on a passing siding for [redacted], absorbing capacity that should have been available to other trains.

Our analysis of the Banks/Guthrie RTC simulations shows that, more often than not, Banks/Guthrie opted to dwell trains on the main line to conduct operations, even when there is an available siding, industry, or yard directly adjacent to the train. Figure No. 8 below is a RTC

model screenshot of a train parked on the main line at [redacted] for an extended period while directly adjacent to a siding.

Figure No. 8

Figure No. 8 is just one example from hundreds where Banks/Guthrie unnecessarily parked trains on the main line for extended periods. When trains are modeled in this way, any train that needs to pass will either be delayed substantially, or denied entirely depending on the signaling settings. Had Banks/Guthrie dwelled these trains off the main line, other trains would be allowed to pass unrestricted. Any Class I railroad would only dwell a train on the main line as a last resort, but the Banks/Guthrie model includes trains that dwell on the main line for no explained reason.

VIII. ASPA/TASD EVIDENCE IS UNSUPPORTED AND CONTRADICTORY

ASPA is the State of Alabama's statutory agency responsible for navigation at the Port of Mobile. ASPA owns the public seaport terminals and, through TASD, operates railroad facilities supporting terminal freight activity. The Port of Mobile is currently the twelfth-largest seaport in the United States by volume of cargo handled, and is the second largest steel port and third-largest coal port in America.[90] TASD is ASPA's common carrier railroad division that operates a network of yard and terminal trackage in and around the Port of Mobile ("Mobile Terminal").

TASD's General Manager, Robert M. Golden, asserts that the reinstitution of Amtrak passenger rail service to Mobile will produce substantial harm to TASD's operations and to TASD's customers. According to Mr. Golden, this harm will come from Amtrak trains reducing the available track capacity over CSXT's lines in the Mobile Terminal, which will impact TASD complex operations that rely upon trackage rights on CSXT. To mitigate the impact of Amtrak's renewed service in Mobile, Mr. Golden believes additional rail infrastructure is required in and around the Mobile Terminal, including the relocation of the new Amtrak station from its proposed location.

As with the case of Banks/Guthrie's assertions discussed above, Mr. Golden's statements of Amtrak's impact on the TASD are overstated and unsupported as we discuss below.

A. MR. GOLDEN'S STATEMENTS ARE UNSUPPORTED BY TESTABLE EVIDENCE

Mr. Golden states that it is his opinion that permitting Amtrak to reinstate passenger rail service to Mobile, AL would substantially harm TASD's freight railroad operations within the

[90] *See*, ASPA Opening Comments at p. 3.

Mobile Terminal absent additional infrastructure designed to protect TASD service.[91] Mr. Golden states that he bases his opinion on the 21 years he has worked within the railroad industry.[92]

We do not question Mr. Golden's experience working in the railroad industry or his approximately four (4) years working at TASD. However, the STB has long found that reliance upon expert opinion alone is not sufficient to carry the burden of proof in a STB proceeding, and that supporting evidence should be provided to support an expert's opinion.[93]

Mr. Golden provided broad inferences about TASD's operations, but did not provide any detailed information about the specific trains that would be impacted by Amtrak's reinstated service.[94] For example, Mr. Golden states TASD will move "two or three daily cross-corridor switching movements per day" and "one intermodal container train and four coal trains per day travel along the Virginia Street Lead or through CP IC Interlocking to and from McDuffie Island."[95] However, Mr. Golden did not provide any supporting evidence on the number of trains he states operate around the Mobile Terminal that he relies upon to support these statements. Railroads in STB proceedings will customarily provide waybill information, train or railcar movement files or dispatcher sheets to support the amount of traffic moving over their rail lines. In this instance, Mr. Golden has provided no information that can be tested and/or verified to support his traffic claims.

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[91] *See*, Golden VS at p. 1. Please note that the Golden VS contains two (2) sets of page numbers. One set of page numbers appears to be a continuation of the page numbering in the ASPA's Opening Comments and Evidence and the other set of page numbers appears to be reflective of the Golden VS. In referencing page numbers associated with the Golden VS in this Reply VS, we rely upon the page numbers associated with the Golden VS only.

[92] *Id.*

[93] See, for example, STB Finance Docket No. 35038, *Tulare Valley Railroad Company – Feeder Line Acquisition – A Line Of The San Joaquin Valley Railroad Co.*, served June 19, 2007 at p. 4; STB Docket No. NOR 42125, *E.I. Dupont De Nemours And Company V. Norfolk Southern Railway Company*, served March 24, 2014 and updated October 3, 2014 at p. 86; and STB Docket No. NOR 42113 *Arizona Electric Power Cooperative, Inc. V. BNSF Railway Company And Union Pacific Railroad Company*, served November 22, 2011 at p. 84.

[94] *See*, Golden VS at p. 5.

[95] *Id.*, at pp. 5-6.

Mr. Golden also did not provide any support for the proposed construction projects that he claims will mitigate the alleged impact of resumed Amtrak operations on the railroads around the Mobile terminal. Mr. Golden included in his Opening VS four (4) construction projects he claims will help mitigate, but not eliminate, the issues caused by Amtrak's reinstated operations. These include:

1. Relocating Amtrak's proposed station to Brookley Aeroplex;
2. Constructing a flyover track connecting TASD's Interchange and Riverfront Yards;
3. Constructing an extension track along Bob Hope Bridge; and
4. Making improvements to the Virginia Street lead track.

While Mr. Golden provided schematics for these proposed projects, he did not provide any estimate of their costs, or more importantly, any evidence of the relative impact these projects would have on train operations within the Mobile Terminal. Without this supporting information, Mr. Golden's claims cannot be tested and/or verified.

B. MR. GOLDEN OVERSTATES THE COMPLEXITY OF RAIL OPERATIONS IN THE MOBILE TERMINAL

Mr. Golden describes TASD facilities and the different railroad companies that operate throughout the Mobile Terminal and states that TASD provides terminal switching services for eight (8) different railroads that originate or terminate traffic at Mobile.[96] These railroads include: (1) the Mississippi Export Railroad ("MSE"); (2) the Alabama Export Railroad, Inc. ("ALE"); (3) the Alabama & Gulf Coast Railway, LLC ("AGR"); (4) the BNSF Railway ("BNSF"); (5) the Central Gulf Railway, LLC ("CGRL"); (6) the Canadian National Railway Company ("CN");[97]

[96] *See*, Golden VS at pp. 2-4 and 8-13.
[97] Mr. Golden uses the name of CN's Illinois Central Railroad ("IC") in his Opening VS.

(7) the Kansas City Southern Railway Company ("KCS"); and (8) NS.[98] Mr. Golden implies that the number of railroads for which TASD originates or terminates traffic brings a level of complexity that rivals operations in major rail terminals such as Chicago, Memphis and/or St. Louis.

While TASD receives and forwards railcars waybilled by these different railroads, TASD's physical connection with other railroads is much less complex than the rail terminal operations in other areas that he claims are comparable. For example:

1. MSE connects with TASD through a haulage agreement with CN, which provides service for MSE between Evanston and Mobile. This means MSE railcars are moved on CN trains;[99]

2. ALE operates on rail lines ALE leases from CN. According to ALE's filings with the STB, ALE was created to replace the switching services to eight (8) customers in downtown Mobile previously performed by CN;[100]

3. BNSF has a haulage agreement with AGR for the movement of railcars to Mobile, which means BNSF railcars arrive on AGR trains;[101]

4. KCS has a haulage agreement with CN for the movement of railcars to Mobile, which means KCS railcars arrive on CN trains;[102]

5. CGRL leases two (2) sidings from TASD to load and unload railcars on ocean-going ferries that transport railcars to and from Mexico;[103] and

6. AGR operates over NS track between Kimbrough and Mobile, AL where it owns a yard that connects directly with TASD.[104]

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[98] Mr. Golden does not include CSXT as a railroad for which TASD provides terminal services, but instead states that CSXT provides its own services throughout the terminal area.
[99] *See*, "Mississippi State Rail Plan Update, March 2016" at pp. 2-9.
[100] *See*, STB Docket No. FD 36321, *Alabama Export Railroad, Inc. Lease and Operation Exemption Under 49 U.S.C. 10901 and 49 CFR 1150.31*, filed August 12, 2019.
[101] *See*, http://www.bnsf.com/media/news/articles/2003/06/2003_06_02a.html.
[102] *See*, https://www.joc.com/rail-intermodal/new-services-kcs_20030126.html.
[103] *See*, STB FD 36007, *Central Gulf Acquisition Company – Acquisition and Operation Exemption – CG Railway, Inc*., filed April 4, 2016.
[104] *See*, https://www.gwrr.com/agr/.

While the railcars forwarded and received by TASD may show any of the eight (8) railroads on the waybills, in actuality, TASD is effectively only interchanging with four (4) railroads that own and operate their own track infrastructure in Mobile: CSXT; NS; CN; and AGR. Moreover, MSE, ALE and NS filings with the STB demonstrate that NS, CN and AGR can interchange traffic with the TASD without using CSXT right of way.[105] This means that TASD can move traffic between these railroads without using its trackage rights on CSXT track that will host Amtrak service.

Mr. Golden also claims that parked Amtrak trains at the proposed new passenger station would severely hamper TASD operations.[106] Mr. Golden believes the presence of an Amtrak train parked at the proposed station will hinder TASD trains moving between TASD's Interchange Yard and Riverfront Yard because TASD trains must have headroom through CP's Alabama State Docks to complete the movement between the two TASD Yards. Mr. Golden also believes that an Amtrak train parked at the proposed station will block access between TASD's Interchange Yard and Riverfront Yard and TASD's Virginia Lead tracks.

The problem with Mr. Golden's position is that CSXT track charts and timetables and CSXT/NS evidence in this proceeding show that there are sufficient crossovers and track space to allow TASD trains to work along the CSXT track and not impede TASD operations even if an Amtrak train is at the proposed station.

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[105] See, MSE filing in STB FD 36320, *Mississippi Export Railroad Company—Continuance in Control Exception – Alabama Export Railroad, Inc.*, filed August 12, 2019 and ALE fling in STB FD 36321, *Alabama Export Railroad, Inc. Lease and Operation Exemption*, filed August 12, 2019. Both filings include a map of the Mobile Terminal area showing direction connections between TASD, NS, CN and AGR railroads. Also see, STB FD 36190, *Terminal Railway Alabama State Docks -- Temporary Trackage Rights Exemption -- Norfolk Southern Railway Company*, filed April 27, 2018 showing NS's direct connection with TASD.

[106] *See*, Golden VS at pp. 10-11.

CSXT track charts provided in discovery show that CSXT's main line has crossovers north (east) of the proposed passenger station at MP 000 665.65 and MP 000 665.70 and crossovers south (west) of the proposed station at MP 000 666.975 and MP 000 667.025.[107] The proposed Amtrak station lies between MP 000 666.470 and MP 000 666.660, which means it is bookended by crossovers on either side.[108] While an Amtrak train will occupy the south (west) CSXT track while loading and unloading passengers, the north (east) track will still be available for TASD switching operations.[109] Additionally, CSXT track charts show TASD's Virginia Street Lead is accessed via CSXT's north (east) main line track so even if an Amtrak train is occupying the south (west) CSXT line, TASD will still be able to access its Virginia Street Lead.

The Banks/Guthrie RTC cases discussed above confirm this point. Exhibit No. 9 to this Reply VS contains screenshots of Banks/Guthrie's RTC cases showing CSXT trains operating on the south (east) track while Amtrak trains occupy the north (west) track at the site of the proposed Amtrak station.

C. MR. GOLDEN'S DESCRIPTION OF AMTRAK OPERATIONS DIFFERS FROM OTHER EVIDENCE PRESENTED

Mr. Golden states that Amtrak trains will make eight (8) movements per day in Mobile that will require approximately six (6) hours of train movement time in the Mobile Terminal. Mr. Golden states that the Amtrak movements may make it impossible for TASD to work across CSXT lines and may lead to increased delays and expenses for TASD trains.

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[107] *See*, "Bates Nos. CSX_AmtrakGC_0002821 to 22.pdf." Also *See,* [redacted]

[108] *See*, [redacted]

[109] Mr. Golden appears to be confused about the location of the proposed Amtrak station. He indicates that the station will be in the location of the prior station, which was on the north (west) side of the CSXT's track, but then states that Amtrak trains will occupy the south (east) CSXT track *See,* Golden VS at p. 11.

Mr. Golden's estimate of six (6) hours of Amtrak train movement time in the Mobile Terminal is considerably different from the time estimated by Banks/Guthrie and used to model Amtrak trains in the RTC model. Banks/Guthrie indicate that Amtrak trains will require 15 minutes to move from their holding space in the Choctaw Yard to the Mobile Station, and then require an additional 15 minutes to load/unload.[110] This equates to 30 minutes per train, or a total of two (2) hours for the four (4) proposed Amtrak trains. The two (2) hours of time Amtrak trains will be on CSXT main line tracks while in Mobile is considerably less than the times estimated by Mr. Golden for purposes of his VS in this proceeding.[111]

[110] *See*, RTC Modeling Report at p. 25.

[111] As noted above, non-Amtrak trains will still be able to move through the Mobile Terminal even when Amtrak trains are moving between the Choctaw Yard and the proposed Mobile station.

LIST OF EXHIBITS

Exhibit No.	Exhibit Description
(1)	(2)
1	Statement of Qualifications of Thomas D. Crowley
2	Statement of Qualifications of Daniel L. Fapp
3	Banks/Guthrie Amtrak Gulf Coast – CSXT/NS RTC Cases
4	Average Number of CSXT Yard Train Starts by Train Symbol and Day of the Week – September to November 2019
5	Count of Trains Using the Almonaster Avenue Bridge – September to November 2019
6	Banks/Guthrie Adjusted CSXT Train Dispatch Times
7	Examples of Improperly Modeled Track in the Banks/Guthrie RTC Simulations
8	Examples of Improperly Modeled Trains in the Banks/Guthrie RTC Simulations
9	Trains Operating Past Amtrak Trains Parked at The Mobile Station

THOMAS D. CROWLEY
STATEMENT OF QUALIFICATIONS

My name is Thomas D. Crowley. I am an economist and President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314, 760 E. Pusch View Lane, Suite 150, Tucson, Arizona 85737, and 7 Horicon Avenue, Glens Falls, New York 12801.

I am a graduate of the University of Maine from which I obtained a Bachelor of Science degree in Economics. I have also taken graduate courses in transportation at George Washington University in Washington, D.C. I spent three years in the United States Army and since February 1971 have been employed by L. E. Peabody & Associates, Inc.

I am a member of the American Economic Association, the Transportation Research Forum, and a Life Member of the American Railway Engineering and Maintenance-of-Way Association ("AREMA").

The firm of L. E. Peabody & Associates, Inc. specializes in analyzing matters related to the rail transportation of all commodities. As a result of my extensive economic consulting practice since 1971 and my participation in maximum-rate, rail merger, service disputes and rule-making proceedings before various government and private governing bodies, I have become thoroughly familiar with the rail carriers and the traffic they move over the major rail routes in the United States. This familiarity extends to subjects of railroad service, costs and profitability, cost of capital, railroad capacity, railroad traffic prioritization and the structure and operation of the various contracts and tariffs that historically have governed the movement of traffic by rail.

As an economic consultant, I have organized and directed economic studies and prepared reports for railroads, freight forwarders and other carriers, for shippers, for associations and for

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state governments and other public bodies dealing with transportation and related economic problems. Examples of studies I have participated in include organizing and directing traffic, operational and cost analyses in connection with single car and multiple car movements, unit train operations for coal, grain, oil and other commodities, freight forwarder facilities, TOFC/COFC rail facilities, divisions of through rail rates, operating commuter passenger service, and other studies dealing with markets and the transportation by different modes of various commodities from both eastern and western origins to various destinations in the United States. The nature of these studies enabled me to become familiar with the operating practices and accounting procedures utilized by railroads in the normal course of business.

Additionally, I have inspected and studied both railroad terminal and line-haul facilities used in handling various commodities. These operational reviews and studies were used as a basis for the determination of the traffic and operating characteristics for specific movements of numerous commodities handled by rail.

I have frequently been called upon to develop and coordinate economic and operational studies relative to the rail transportation of various commodities. My responsibilities in these undertakings included the analyses of rail routes, rail operations and an assessment of the relative efficiency and costs of railroad operations over those routes. I have also analyzed and made recommendations regarding the acquisition of railcars according to the specific needs of various shippers. The results of these analyses have been employed in order to assist shippers in the development and negotiation of rail transportation contracts which optimize operational efficiency and cost effectiveness.

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I have developed property and business valuations of privately held freight and passenger railroads for use in regulatory, litigation and commercial settings. These valuation assignments required me to develop company and/or industry specific costs of debt, preferred equity and common equity, as well as target and actual capital structures. I am also well acquainted with and have used the commonly accepted models for determining a company's cost of common equity, including the Discounted Cash Flow Model ("DCF"), Capital Asset Pricing Model ("CAPM"), and the Farma-French Three Factor Model.

Moreover, I have developed numerous variable cost calculations utilizing the various formulas employed by the Interstate Commerce Commission ("ICC") and the Surface Transportation Board ("STB") for the development of variable costs for common carriers, with particular emphasis on the basis and use of the Uniform Railroad Costing System ("URCS") and its predecessor, Rail Form A. I have utilized URCS/Rail form A costing principles since the beginning of my career with L. E. Peabody & Associates Inc. in 1971.

I have frequently presented both oral and written testimony before the ICC, STB, Federal Railroad Administration, Federal Energy Regulatory Commission, Railroad Accounting Principles Board, Postal Rate Commission and numerous state regulatory commissions, federal courts and state courts. This testimony was generally related to the development of variable cost of service calculations, rail traffic and operating patterns, fuel supply economics, contract interpretations, economic principles concerning the maximum level of rates, implementation of maximum rate principles, and calculation of reparations or damages, including interest. I presented testimony before the Congress of the United States, Committee on Transportation and Infrastructure on the status of rail competition in the western United States. I have also

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presented expert testimony in a number of court and arbitration proceedings concerning the level of rates, rate adjustment procedures, service, capacity, costing, rail operating procedures and other economic components of specific contracts.

Since the implementation of the *Staggers Rail Act of 1980*, which clarified that rail carriers could enter into transportation contracts with shippers, I have been actively involved in negotiating transportation contracts on behalf of shippers. Specifically, I have advised shippers concerning transportation rates based on market conditions and carrier competition, movement specific service commitments, specific cost-based rate adjustment provisions, contract reopeners that recognize changes in productivity and cost-based ancillary charges.

I have developed different economic analyses regarding rail transportation matters for over sixty (60) electric utility companies located in all parts of the United States, and for major associations, including American Chemistry Council, American Paper Institute, American Petroleum Institute, Chemical Manufacturers Association, the Chlorine Institute, Coal Exporters Association, Edison Electric Institute, the Fertilizer Institute, Mail Order Association of America, National Coal Association, National Grain and Feed Association, National Industrial Transportation League, North America Freight Car Association and Western Coal Traffic League. In addition, I have assisted numerous government agencies, major industries and major railroad companies in solving various transportation-related problems.

In the two Western rail mergers that resulted in the creation of the present BNSF Railway Company and Union Pacific Railroad Company and in the acquisition of Conrail by Norfolk Southern Railway Company and CSX Transportation, Inc., I reviewed the railroads' applications including their supporting traffic, cost and operating data and provided detailed evidence

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supporting requests for conditions designed to maintain the competitive rail environment that existed before the proposed mergers and acquisition. In these proceedings, I represented shipper interests, including plastic, chemical, coal, paper and steel shippers.

I have participated in various proceedings involved with the division of through rail rates. For example, I participated in ICC Docket No. 35585, *Akron, Canton & Youngstown Railroad Company, et al. v. Aberdeen and Rockfish Railroad Company, et al.* which was a complaint filed by the northern and mid-western rail lines to change the primary north-south divisions. I was personally involved in all traffic, operating and cost aspects of this proceeding on behalf of the northern and mid-western rail lines. I was the lead witness on behalf of the Long Island Rail Road in ICC Docket No. 36874, *Notice of Intent to File Division Complaint by the Long Island Rail Road Company*.

DANIEL L. FAPP
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My name is Daniel L. Fapp. I am a Senior Vice President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, VA 22314; 760 E. Pusch View Lane, Suite 150, Tucson, Arizona 85737; and 7 Horicon Avenue, Glens Falls, New York 12801.

I received a Bachelor of Science degree in Business Administration with an option in Marketing (cum laude) from the California State University, Northridge in 1987, and a Master of Business Administration degree from the University of Arizona's Eller College of Management in 1993, specializing in finance and operations management. I am also a member of Beta Gamma Sigma, the national honor society for collegiate schools of business.

I have been employed by L. E. Peabody & Associates, Inc. since December 1997. Prior to joining L. E. Peabody & Associates, Inc., I was employed by BHP Copper Inc. in the role of Transportation Manager - Finance and Administration, and where I also served as an officer and treasurer of the three BHP Copper Inc. subsidiary common carrier railroads, The San Manual Arizona Railroad, the Magma Arizona Railroad (also known as the BHP Arizona Railroad) and the BHP Nevada Railroad. I have also held operations management positions with Arizona Lithographers in Tucson, AZ and MCA-Universal Studios in Universal City, CA.

While at BHP Copper Inc., I was responsible for all financial and administrative functions of the company's transportation group. I also directed the BHP Copper Inc. subsidiary common carrier railroads' cost and revenue accounting staff. This included preparation of the subsidiary railroads' budgets and financial statements, reconciliation of revenues issued to and received from other railroads through junction settlement and interline settlement, and oversight of the electronic systems used to communicate and share documents with other railroads. I also

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managed the San Manuel Arizona Railroad's and BHP Arizona Railroad's dispatchers and the railroad dispatching functions. I served on the company's Commercial and Transportation Management Team and the company's Railroad Acquisition Team where I was responsible for evaluating the acquisition of new railroads, including developing financial and economic assessment models.

I have directed and managed sourcing and core carrier engagements as both a consultant and as an industry practitioner. These engagements have involved the selection of primary and secondary rail, truckload, less-than-truck load, air express and parcel carriers. I have participated in and managed consortium sourcing projects in the small package express and fleet management fields. I have served on the management team overseeing the implementation of a core carrier program and have been involved in and directed negotiations with regional and national truckload carriers.

In my tenure at L. E. Peabody & Associates, Inc., I have been actively involved in negotiating transportation contracts on behalf of shippers. Specifically, I have advised shippers concerning transportation rates based on market conditions and carrier competition, movement specific service commitments, volume commitments, contract reopeners that recognize changes in productivity and cost-based ancillary charges.

As part of my work for L. E. Peabody & Associates, Inc., I have performed and directed numerous projects and analyses undertaken on behalf of utility companies, short line railroads, bulk shippers, and industry and trade associations. Examples of studies which I have participated in organizing and directing include, traffic, operational and cost analyses in connection with the rail movement of coal, metallic ores, pulp and paper products, and other

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commodities. I have also analyzed multiple car movements, unit train operations, divisions of through rail rates and switching operations throughout the United States. The nature of these studies enabled me to become familiar with the operating procedures utilized by railroads in the normal course of business.

Since 1997, I have participated in the development of cost of service analyses for the movement of bulk and non-bulk commodities over all the major U.S. Railroads. I have conducted on-site studies of switching, detention and line-haul activities relating to the handling of coal and chemicals. I have also participated in and managed projects assisting short-line railroads. In these engagements, I assisted short-line railroads in their negotiations with connecting Class I carriers, helped short-line railroads with revenue and cost accounting issues, performed railroad property and business evaluations, and worked on rail line abandonment projects.

I have developed numerous variable cost calculations utilizing the various formulas used by the Surface Transportation Board ("STB") for the development of variable costs for common carriers, with particular emphasis on the basis and use of the Uniform Railroad Costing System ("URCS"). I have submitted testimony on the behalf of shippers before the STB which developed stand-alone costs, traffic forecasts, revenue and contract forecasts, and fuel surcharge forecasts.

I have been frequently called upon to perform financial analyses and assessments of railroad and other transportation companies. I have determined the Going Concern Value of privately held freight and passenger railroads, including developing company specific costs of debt and equity for use in discounting future company cash flows. My consulting assignments

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regularly involve working with and determining various facets of financial issues, including cost of capital determinations and railroad accounting issues. In these assignments, I have calculated capital structures, market values, cost of debt, cost of preferred equity and common equity. I am also well acquainted with and have used financial industry accepted models for determining a firm's cost of equity, including Discounted Cash Flow Model ("DCF") models, Capital Asset Pricing Model ("CAPM"), Cost Build-Up models and Arbitrage Pricing Models.

I have also lectured in graduate level finance and economics classes discussing corporate capital theory and costs of equity determination and am a member of the Professional Advisory Council for the Eller School of Management Finance Department at the University of Arizona.

I have developed different economic analyses regarding transportation matters for numerous electric utility companies located in all parts of the United States, and for major associations, including the American Chemistry Council, the Chlorine Institute, the Fertilizer Institute, Mail Order Association of America, National Coal Association, National Grain and Feed Association, National Industrial Transportation League, North America Freight Car Association and Western Coal Traffic League. In addition, I have assisted numerous government agencies major industries companies in solving various transportation-related problems.

In my tenure with L. E. Peabody & Associates, Inc., I have presented evidence in numerous proceedings before the STB and have presented evidence and expert reports before state and Federal courts and in private arbitrations. In conjunction with other L. E. Peabody & Associates, Inc. officers, I have worked on and directed expert reports in a number of court and arbitration proceedings concerning the level of rates, rate adjustment procedures, service, capacity, costing, operating procedures and other economic components of specific contracts.

Banks/Guthrie Amtrak Gulf Coast - CSXT/NS RTC Cases 1/

Redacted - Contains Highly Confidential Information

Average Number of CSXT Yard Train Starts By
Train Symbol and Day Of The Week - September to November 2019

Redacted - Contains Highly Confidential Information

Count of Trains Using the Almonaster Avenue Bridge - September to November 2019

Redacted - Contains Highly Confidential Information

Banks/Guthrie Adjusted CSXT Train Dispatch Times

Redacted - Contains Highly Confidential Information

Examples of Improperly Modeled Track in the Banks/Guthrie RTC Simulations

Redacted - Contains Highly Confidential Information

Examples of Improperly Modeled Trains in the Banks/Guthrie RTC Simulations

Redacted - Contains Highly Confidential Information

Trains Operating Past Amtrak Trains Parked At The Mobile Station

Redacted - Contains Highly Confidential Information

APPENDIX A

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

APPENDIX B

Jessica Ring Amunson
Tel +1 202 639 6023
JAmunson@jenner.com

March 26, 2021

VIA EMAIL

Raymond A. Atkins, Ph.D.
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Re: *Application of National Railroad Passenger Corp. Under 49 U.S.C. § 24308(e)*, STB Finance Docket No. 36496

Dear Messrs. Atkins and Mullins:

Thank you for your letter of March 19, 2021, on behalf of your respective clients CSX Transportation, Inc. ("CSX") and Norfolk Southern Railway Company ("NS").

When Amtrak, CSX, and NS entered into the Rail Traffic Controller ("RTC") Study Agreement and Data Sharing Agreement in January 2020, Amtrak did so with the understanding that the RTC Study would provide "useful input for the reintroduction" of the Gulf Coast Service and that the parties would work "jointly" with the consultant, HDR Engineering, Inc. ("HDR"), on the analysis. The parties also understood that the one-year term of the RTC Study Agreement would provide more than sufficient time for the analysis to be completed.

As you are aware, the RTC Study Agreement expired on January 23, 2021 without the analysis having been completed. Your letter requests Amtrak's consent to allow CSX and NS to reengage HDR to complete the analysis, asserting that "[t]he study by HDR was nearly complete," and that "HDR finished all but the final phase of the analysis." However, neither statement is correct. Based on HDR's estimates of the remaining work, as well as Amtrak's experience with the pace of work during the year the study was being conducted, Amtrak estimates that completion would take a minimum of 28 to 36 additional weeks.

Moreover, much of the work done before the RTC Study Agreement expired was severely flawed. Indeed, less than two weeks before the expiration date—on January 12, 2021—HDR notified Amtrak, CSX, and NS that due to a software error, a significant portion of HDR's work to date was incorrect and would need to be redone, further delaying the completion of the study. With significant work to be done (or redone), and no guaranteed end date, the study could hardly be called "nearly complete."

Even more critically, however, it became abundantly apparent to Amtrak during the course of the year-long RTC Study Agreement that the HDR analysis was not going to provide the "useful input for the reintroduction" of Gulf Coast Service that Amtrak had envisioned. Clearly, CSX and NS had a very different conception of what it meant to work "jointly" on the study than did Amtrak. As Amtrak detailed in its August 3, 2020 letter to CSX and NS, because CSX and NS designated virtually all of the information they shared with HDR as commercially sensitive and therefore refused to share it with Amtrak, it became impossible for Amtrak to properly verify existing conditions or the reasonableness of any modeling inputs or outputs. At CSX's and NS's request, Amtrak provided CSX and NS with a list of the input information Amtrak would need in order to verify the model's outputs, and Amtrak committed to working with CSX and NS to ensure that the confidentiality of the information would be maintained. Unfortunately, CSX and NS refused to share such information.

In its August 3, 2020 letter, Amtrak further noted that CSX's and NS's insistence that all future iterations must be modeled against the "No Build Case" reflecting speculative forecast conditions in the year 2039 would artificially increase the amount of infrastructure supposedly required to mitigate the addition of even a single round trip passenger train. Instead, Amtrak proposed that future iterations be modeled against the Base Case as that would more accurately show the impact of proposed Amtrak service in the 2022 to 2026 timeframe. Once again, CSX and NS refused.

Accordingly, given the parties' significant disagreement on the proper conduct of the study, the unwillingness of NS and CSX to permit a collaborative, open, and transparent study, and the length of time that would be needed to complete a proper study, Amtrak does not believe it would be useful to reengage HDR to complete what is already a deeply flawed study or to share the results of such a flawed study with the Surface Transportation Board. Amtrak therefore does not provide the consent requested in your March 19, 2021 letter. Amtrak understands that CSX and NS bear the burden under 49 U.S.C. § 24308(e) of demonstrating to the Board that an order to institute service on Amtrak's proposed terms "would impair unreasonably freight transportation of the rail carrier[s]," and Amtrak looks forward to the opportunity to examine any evidence CSX and NS may choose to present to satisfy their burden under the processes provided by the Board.

Sincerely,

/s/ Jessica Ring Amunson
Jessica Ring Amunson

EXHIBIT 4

Analysis of Capacity on the Gulf Coast Corridor for Amtrak's Gulf Coast Service

Verified Statement of
Clayton S. Johanson
Michael Weaver
Darkhan Mussanov

DB Engineering & Consulting USA Inc.

Consulting

2010 Main Street, Suite 220

Irvine, California 92614

December 3, 2021

I. EXECUTIVE SUMMARY

We have been retained as experts by the National Railroad Passenger Corporation ("Amtrak") to analyze the railroad capacity implications for the addition of Amtrak's Gulf Coast Service on CSX Transportation, Inc. ("CSX") NO&M Subdivision from Sibert Yard in Mobile, Alabama to NOT Junction in New Orleans, Louisiana, and continuing on Norfolk Southern Railway Company's ("NSR") Back Belt Line to East City Junction in New Orleans, to a connection with Amtrak's New Orleans Union Passenger Terrminal ("NOUPT") to the NOUPT Passenger Station in New Orleans ("Gulf Coast Corridor").

We utilized a capacity marketplace methodology that we developed for use on other freight and passenger railroad corridors within the United States. This model establishes a unit for measuring the supply of capacity of a section of railroad corridor and then values the consumption of the capacity from a demand perspective.

This capacity marketplace methodology was developed by Clayton Johanson, Darkhan Mussanov, and Michael Weaver of DB Engineering & Consulting USA, Inc. (DB) who bring rich and diverse railroad experience (see Appendix B for detailed background). Attached to this Verified Statement as Appendix A is the 2021 DB Amtrak Gulf Coast Service Report. In this Verified Statement we will communicate how our methodology answers the fundamental questions of "What is the supply of capacity on the Gulf Coast Corridor, what are the demands placed on that capacity, and what improvements or operational changes, if any, are necessary to balance supply and demand?"

The DB team enjoys several years of experience in railroad operations and planning working directly for Class 1 railroads and Amtrak, and subsequently in consulting roles engaged exclusively on railroad projects across the country in operations and capacity planning engagements.

Summary Results

Based on our analysis we have reached the following conclusion:

The Amtrak Gulf Coast service can be initiated without any immediate infrastructure improvements. When our analysis applied the two proposed Amtrak Gulf Coast Service roundtrips (four trains total) on the Gulf Coast Corridor, no sections of the corridor exceed the available capacity.

There are two sections that will be fully allocated and one main track in Mobile that is fully consumed. Operational efficiency improvements, or infrastructure improvements should be explored in these sections. In the three sections identified the demand on capacity does not exceed the supply and therefore does not impair freight operations.

Our methodology emphasizes a service planning first approach that identifies operating, and service needs and then iterates through the appropriate level of infrastructure to support the service plan. This differs from other approaches that begin with infrastructure needs first. Our focus drives maximum utilization from capacity assets by having the right assets in the right places to meet the service needs. This methodology places a quantitative value on the consumption of capacity and provides operators the ability to explore service and operational improvements that extract the greatest return from railroad capacity.

We have identified three sections to explore operational improvements or infrastructure additions following initiation of the Amtrak Gulf Coast service:

1. Mobile Station
    a. A station siding track at the proposed Mobile Station will minimize non-revenue movements and preserve capacity on the main tracks
2. Orange Grove to Gautier

a. Powered turnouts at the ends of the Bayou Cassottee Yard at MP 000 706.0 and MP 000 702.3 to mitigate the impact of train crews operating the manual track switches

3. Gautier to Beauvoir
    a. Increase maximum authorized freight train speeds to 60 MPH OR
    b. Extension of the Ocean Springs siding by 6000 feet

II. OUR EXPERIENCE

DB Engineering & Consulting USA, Inc. is a subsidiary of Deutsche Bahn AG, the German Federal Railway company. We are engaged in operations, planning, management, and engineering consulting services to the freight rail, passenger rail, and transit industry and is based in Sacramento, California. We have been active in the United States since 2017 and have developed a diverse portfolio of clients spanning the continent.

Clayton S. Johanson joined DB as Principal Consultant in April 2019 tasked with overseeing the Service and Operations Planning practice. Mr. Johanson has led a range of efforts from long-term conceptual planning and analysis to near term operations support. Long range projects include development of rail agency strategic visions and goals, development of high-level long term conceptual service plans, and the creation of new, or validation of existing long-term infrastructure plans. Numerous efforts in which service plans were developed and compared to existing infrastructure plans resulted in agencies being able to scale back on their infrastructure plans and therefore reduce long term costs. Near-term operations efforts that Mr. Johanson lead include passenger timetable development with corresponding crew and equipment rotations, freight slot analysis, and real time train performance analysis. The results of performance analyses have identified needed service changes, identified operational bottle necks, changes to operating practices, and/or the pursuit of capital projects to better the operation. Clients for both near-

and long- term efforts include private freight rail companies, public passenger rail agencies, joint power authorities, and government agencies at various municipal levels.

Michael Weaver is a Senior Consultant with DB. Mr. Weaver joined DB in September 2018. Mr. Weaver has been tasked with providing project management and support for client projects that focus on near- and long-term rail planning. Mr. Weaver has led and provided support in the development of long-term multimodal rail planning efforts that establish rail agency visions and help turn them into implemental plans. Michael has led numerous efforts with passenger railways to implement near-term viable service plans. These efforts included development of near-term schedules, corresponding crew and equipment plans, support with freight owner schedule negotiation, and implementation and execution of service plans.

Darkhan Mussanov is a Consultant with DB supporting Service and Operations Planning practice group. Mr. Mussanov joined DB in February 2019. Mr. Mussanov worked on tasks that provided technical support and advice on near- and long-term rail planning. Darkhan has 3 years of industry experience and 3 years of experience on projects in railway operation analysis, service and conceptual planning, dynamic simulation, and freight/passenger service design. With experience in freight railroad network planning, he previously worked on projects that involved long-term capital planning with simulation focus, railroad asset distribution optimization and statistical analysis of data. Prior to joining DB, he worked at Union Pacific as a Service Design Intern, at CSX as a Network Planning Intern and at Arup as a Railway Operations Specialist.

Additional biographical information and complete CVs can be found in Appendix B attached to this verified statement.

III. OUR METHODOLOGY

DB was asked by Amtrak to apply our ***capacity marketplace*** methodology to the Gulf Coast Corridor to assess the current supply of capacity on the corridor, the demand on that capacity and recommend mitigations that can balance the supply and demand. The capacity marketplace is a railroad planning methodology developed by DB that facilitates a market style comparison of railroad capacity and demand.

Since being developed in 2019, our methodology has been utilized for capacity planning purposes on several capacity planning projects on passenger and freight rail corridors across the United States. Figure 1 is a map of clients and project locations. We are in active discussions to initiate further projects with new and existing clients using this methodology.

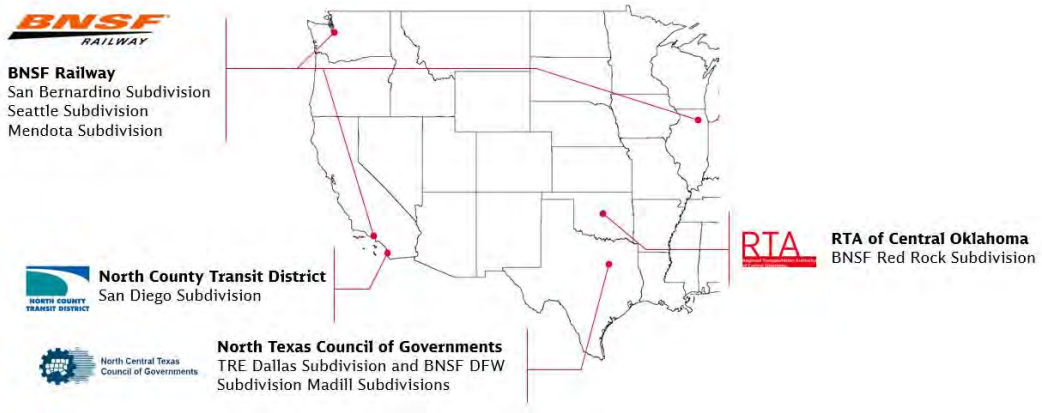


Figure 1 - DB Capacity Marketplace Project Locations

Our methodology uses the concept of a marketplace to evaluate supply and demand on a railroad corridor. Markets create a forum for participants within the market to place a value on goods and services. A rail corridor with multiple operators, such as the Gulf Coast Corridor with Amtrak, CSX, and NSR is no different with each operator placing demands on the limited supply of railroad capacity. Our methodology establishes a quantitative value by which supply and demand can be calculated. This value is called a ***unit of capacity***. The *unit of capacity* is based on a

standard train. The *standard train* is a train that is representative of the type of trains that could potentially be operated on the corridor. Our methodology does not require every train to adhere to this profile, it simply creates an operational profile of a train that captures the characteristics of most trains on the corridor.

Using *units of capacity* we can evaluate the capacity consumption implications of operational decisions allowing operators to evaluate the appropriateness of those decisions and understand what implications their decisions have on capacity consumption. Decisions that consume additional capacity beyond a single unit can be compared to the opportunity cost of other decisions. Operating decisions that consume more than a single unit are not inherently bad. Those decisions may meet certain service, operational, or financial goals and are the best use of the capacity. In other circumstances it can highlight inefficiencies in operations that if corrected can provide additional capacity without the need for costly capital investments. Our analysis also highlights where capital or infrastructure investment is necessary and can tie the specific service benefit back to the investment required.

Corridor Model Development

To begin our analysis, we built a model of the Gulf Coast Corridor using the railroad planning system ***Viriato***.

Viriato was developed by the Swiss rail consultancy SMA and Partners. Viriato is extensively used for rail planning in Europe, including by our sister company DB Netz AG, the operator of most of the German rail network. Viriato is used in virtually all DB's US planning efforts, including work with Virginia's Department of Rail and Public Transportation on the CSX RF&P Corridor.

Viriato is a rail planning tool used to develop service plans and infrastructure requirements. Within Viriato there are numerous tools to aid with both the development of passenger and freight rail service planning, and outputs in which to

share the results. One tool worth highlighting due to its value to this effort, is the Viriato Train Performance calculator. The Train Performance Calculator considers train length, weight, horsepower, corridor speed and grade characteristics which produces train run times for both passenger and freight trains.

Within Viriato, the current-state NO&M Subdivision was built using CSX's employee timetable. Station, siding, double track, draw bridges, and line and siding speeds were coded into Viriato as reflected in the CSX timetables as well. CSX track charts provided elevation data for the NO&M subdivision. Speeds of turnout switches were incorporated into the Viriato database but are less relevant given our conservative methodology that will be described below. Using the dimensions of a standard train, we used Viriato's Train Performance Calculator to determine trip times based on the dimensions of a "Standard Train" (see "Standard Train section below). With all the variables considered, Viriato provides an accurate representation of how a specific train consist operates on a selected section of infrastructure.

Standard Train

The *standard train* is a train that is representative of the type of trains that could potentially be operated on a given corridor. A standard train is developed to provide representation of units of capacity throughout the corridor that are consistent throughout the day. The creation of a standard train is like the development of train slots. Like developing train slots, the creation of a standard train must consider corridor constraints and planning parameters (see Figure 2). For example, units of capacity representing bi-directional train movement would need to adhere to double and single-track limitations much like that of normal train operations. Unlike train slot development, the slotting of standard train slots doesn't seek to hold operators to a specific schedule.

We establish planning parameters to ensure consistent service development throughout the study process.

Planning parameters are derived from the standard train developed, calculated signal system headways, and passenger service timetable provided by Amtrak

Parameters	Train Type	Freight	Passenger
Consist		4 4400 HP Locomotives 11,000 feet 17,000 Tons	1 P42-8 locomotive 4 Superliner passenger coaches[1]
Signals		Headways: 15 minutes Separation: 7 minutes	Headways: 7 minutes Separation: 3 minutes
Recovery		10% Distributed Recovery	5% distributed recovery Segment recovery as used by Amtrak provided schedules

(1) 2021 Gulf Coast RTC Report used 2 locomotives in push-pull and 3 Amfleet coaches. Our modeled train while different does not affect the outcome

Figure 2 - Planning parameters for the Gulf Coast Corridor

The standard train's expected performance is calculated against detailed consist information using Viriato's Train Performance calculator. The consist dimensions were selected after a review of train signal data provided by CSX. The dimensions selected were 11,000 feet long trains, weighing 17,000 tons, led by 4 4400 HP locomotives. Based on the distribution of all trains that operated in the period between September-December 2019, the dimensions encompassed 95 percent of all trains (see figure 3). This means that 95% of all trains observed can operate within the parameters on which the standard train is based. More aggressive train dimensions were considered but were found to have no benefits to capacity given that observed signal performance would limit capacity to be the same as the 95% percentile train dimensions.

The standard train slots eventually become ***units of capacity*** as it relates to supply of available slots to run passenger or freight trains, conduct MoW activities, or otherwise use the railroad in this analysis.

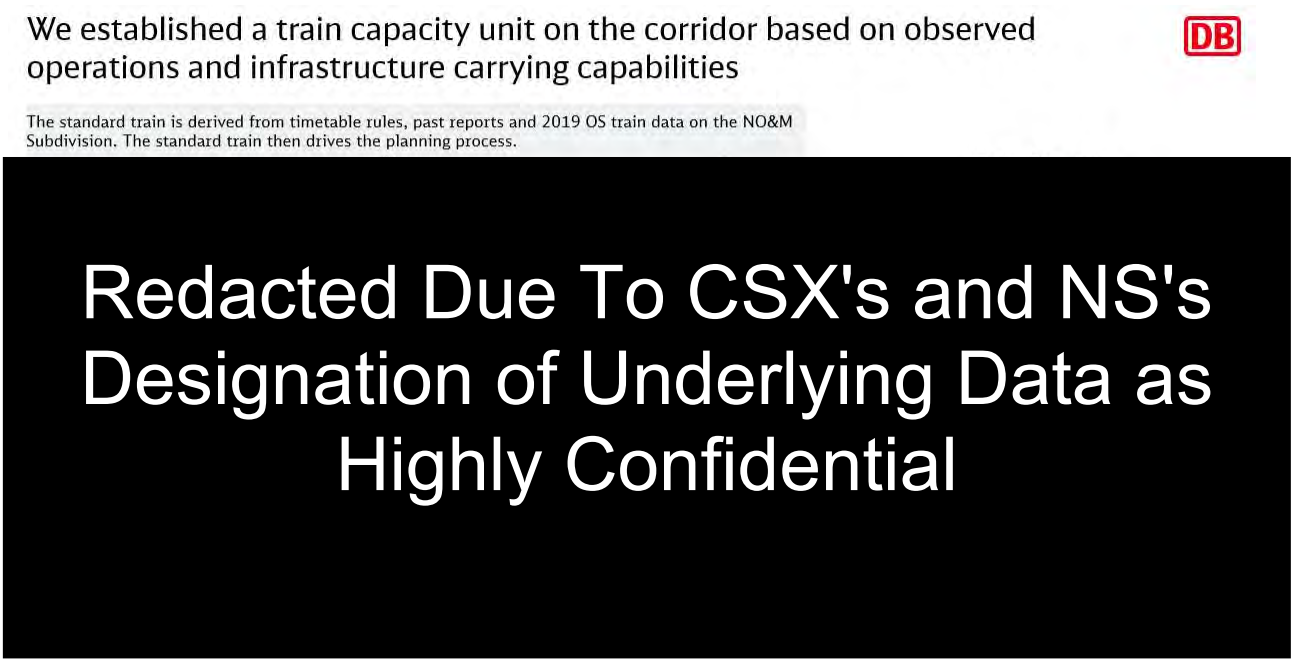


Figure 3 - Distribution of consist dimensions

Unit of Capacity Development

Using the standard train built using freight parameters (see Figure 2), units of capacity were developed across the corridor to obtain a count of daily corridor capacity. Governing the development and placement of units of capacity were minimum headways (>15 minutes) and signal separation for opposing trains at siding/single track meets (>7 minutes).

Due to the significant amount of single track on the corridor, individual units of capacity were constructed between single sets of consecutive sidings. Starting at the beginning of the route, a unit of capacity would begin at the start and continue to the end of the next consecutive siding. From there, a new unit of capacity was connected to the end of the consecutive next siding. This point-to-point unit of capacity development would be done until the end of the route in both directions. Minimum headways of 15 minutes would need to be preserved and opposing units of capacity would be separated by 7 minutes at points where double track ends. Units of capacity

in both directions were slotted and their frequencies increased until they could no longer operate without conflict. Speeds were calculated using Standard Train characteristics in the Viriato Runtime Calculator with 10% distributed recovery to account for day-to-day variability that occurs in typical railroad operations. as dictated by signal parameters described above. In most cases, an individual segment can handle a single unit of capacity every 60 minutes, in each direction. In areas where higher capacity is available, more frequent units of capacity were activated. All units of capacity were assumed to start from a stop at the beginning of single track and stop at the end of next consecutive siding or section of double track.

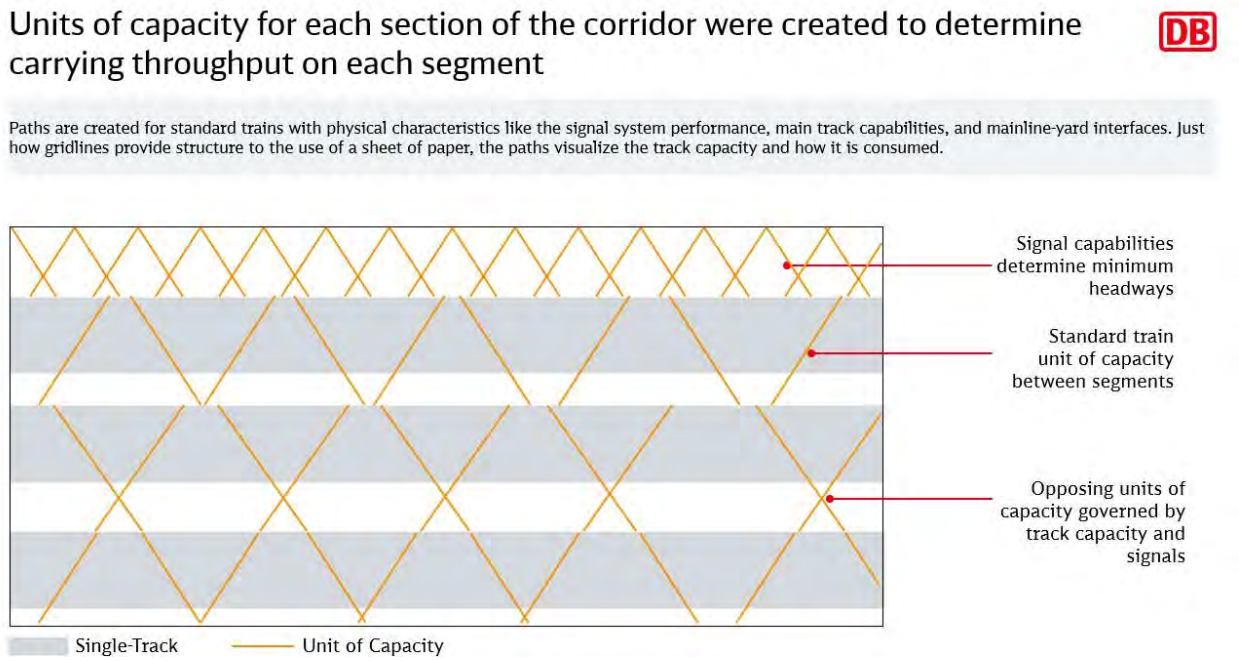


Figure 4 - Development of Units of Capacity

Once all day units of capacity were constructed, Amtrak's proposed passenger schedules were overlayed against the all-day units of capacity. Unlike the units of capacity with freight parameters, the Amtrak schedules were constructed across the entire route, rather than between siding to siding. This was due to the right-of-

preference that Amtrak is afforded under 49 U.S.C § 24308 (c). Our methodology does not make assumptions on Amtrak's use of the main or siding tracks at siding locations. Right of way preference doesn't preclude Amtrak from using a siding or slower route if it will result in overall faster trip times or less delay. Any potential delay from operating through a siding may be accounted for in the recovery time built into the Amtrak-provided schedules.

Speeds were calculated with the Viriato runtime calculator using a consist of 1 locomotive and 5 passenger coach cars[1], 5% distributed recovery was incorporated to account for day-to-day variability. Any unit of capacity that conflicted with the proposed passenger slots was considered to be consumed and therefore (as set forth by the established planning parameters (see Figure 2) unavailable to accommodate freight service. Consumption of capacity did not limit Amtrak to mainline only operations. When a passenger train and freight train arrive at a siding at the same time there are many cases where it would be more efficient for both freight and passenger movement for the faster, smaller passenger train to navigate the siding rather than the longer slower freight train. Final refinement of schedules can account for trips through siding by using recovery time.

It is important to note that the development of units of capacity does not require CSX nor NSR to adhere to a strict "scheduled" railroad, it is merely a way for representing a *unit of capacity*. CSX and NSR are free to flex service plans by time of day, day of week, or length.

Variability

The performance of a freight train on a particular route can be highly variable. While some of this is due to the operation of the train by the locomotive engineer, there are

[1] *2021 Gulf Coast RTC Report used 2 locomotives in push-pull and 3 Amfleet coaches. Our modeled train while different does not affect the outcome*

a multitude of factors outside of their control that impact the ability of a train to adhere to a particular schedule. These factors include additional weight, lower-than-planned horsepower to ton ratio, temporary track speed restrictions, track work windows, terminal congestion issues, other line congestion issues, delays holding off of grade crossings, or drawbridges open for water traffic. We account for this in our methodology using a ***variability metric***. The *variability metric* is a measure of the additional capacity consumed by the operation of a freight train. It is obtained by aggregating all historical OS freight train runtimes and comparing them relative to the modeled standard train runtimes. The average difference is then recorded as a *variability metric*.

Yard Entry/Exit

Freight movements in and out of yards may consume capacity depending on but not limited to several factors: yard to mainline infrastructure layout, train consist, turnout type and allowable speed. These factors control the speed of a train as it clears the turnout between a yard lead and a mainline. In some instances, a train takes a long time to enter and exit the yard, which leads to queueing and additional capacity consumed.

Staging

Freight operators often face constraints from congested rail terminals or customer facilities. These congestion constraints often require the operators to park or "stage" trains at locations awaiting the ability of terminals and facilities to receive these trains. Trains may wait from a few hours, to multiple days before a terminal or facility is ready to receive the train. In some circumstances trains may be able to exit a main track and wait inside a yard or terminal. In many instances these trains are parked on main tracks or on sidings between sections of single track. The result is utilizing main track capacity as a parking space for trains. Our methodology uses the actual

OS data provided by CSX to determine the location, frequency, and duration of trains staged.

Track Maintenance

Railroad tracks require periodic maintenance and inspections to remain in a reliable condition. Our methodology uses a set assumption on the amount of capacity units consumed by Maintenance of Way ("MOW") activities. Absent an assumption communicated by CSX or NSR, we calculated units consumed from MOW activities using Rail Traffic Controller ("RTC") inputs from the 2021 RTC study.

The 2021 RTC study separated the Gulf Coast Corridor into three sections. Each section had a randomization for the likelihood of track outage to start in a particular hour of the day, and the duration of the outage. Using this input we simulated 30 calendar days of track outages. The result was an average hours of track outages each day for every single track to single track section. We then ran that simulation 30 times, for a total of 900 days simulated. We averaged the average of each 30-day simulation.

IV. THE RESULTS

Our analysis, governed by the methodology as described in section III, demonstrate the Amtrak Gulf Coast service can be initiated without any immediate infrastructure improvements. When our analysis applied the two proposed Amtrak Gulf Coast Service roundtrips (four trains total) on the Gulf Coast Corridor, no sections of the corridor exceed the available capacity.

There are two sections that will be fully allocated and one main track in Mobile that is fully consumed. Operational efficiency improvements, or infrastructure

improvements should be explored in these sections. In the three sections identified the demand on capacity does not exceed the supply and therefore does not impair freight operations.

Those sections are at Mobile Station, Bayou Cassotte yard, and Gautier to Beauvoir.

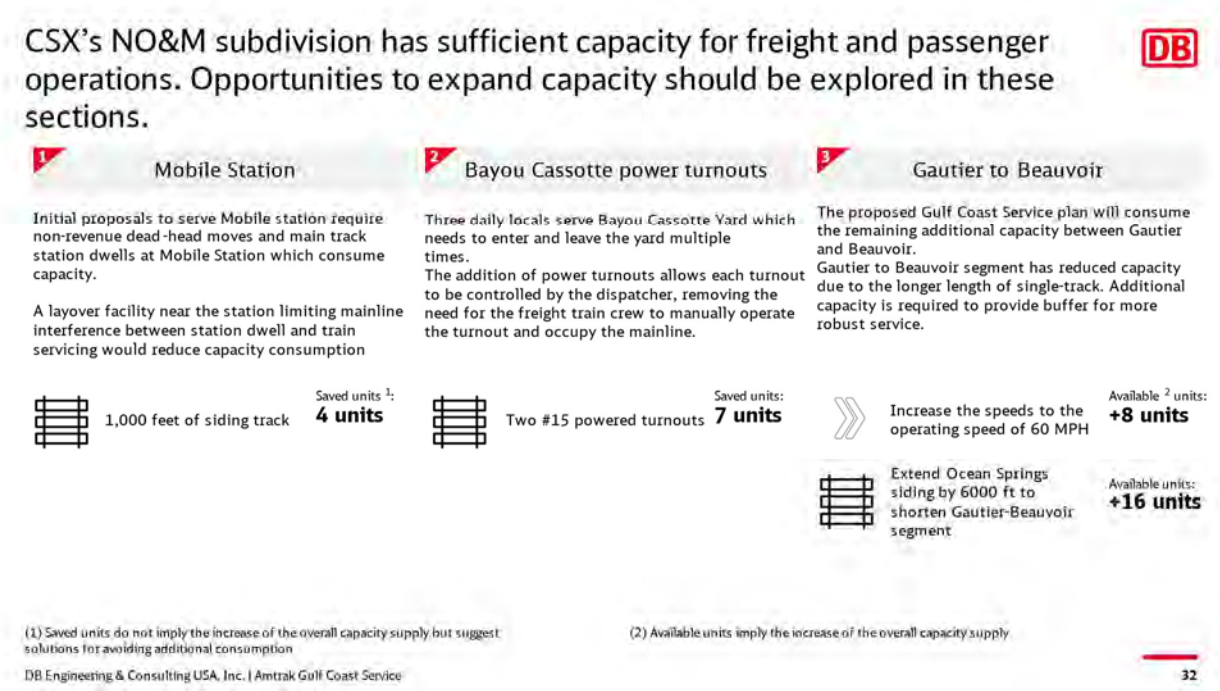


Figure 5 - Infrastructure Conclusion

Corridor Capacity

Standard train capacity slots have been inserted to fill out the whole day and determine the maximum number of units of capacity across the corridor (see figure 4). Most sections of the corridor have 48 units of available capacity in the segment. Forty-eight units of capacity equate to one train per direction, per segment, per hour, in a 24-hour period. The exceptions are the section between Gautier and Beauvoir, between Choctaw and Brookley, and between North Gentilly and Industrial Canal. The section between Gautier and Beauvoir only has 32 units of a capacity. This is a

function of the distance between the siding locations, and the travel time of the standard train between the control points at Gautier and Beauvoir.

Choctaw to Brookley and North Gentilly to Industrial Canal have 96 units of capacity available. The higher number of units available in these sections are driven by the short distance between control points. The units available is summarized in Figure 6.

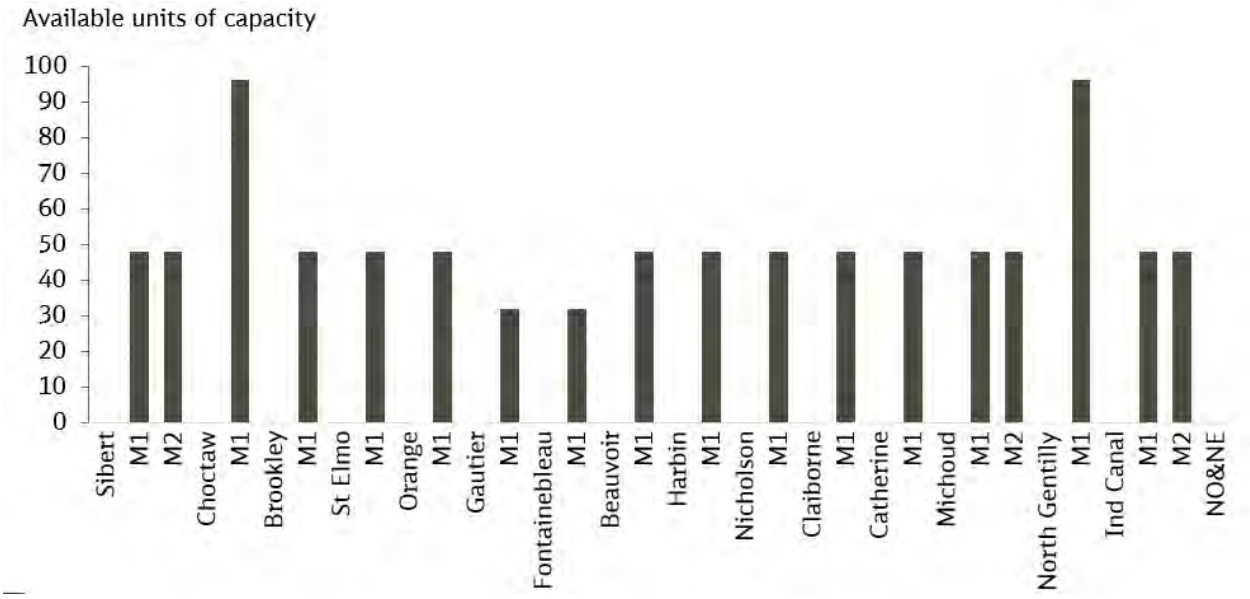


Figure 6 - Units of capacity of the Gulf Coast Corridor

2019 Freight Train Counts

After we established the units of capacity available in each section, we allocated capacity demand to each segment. We started with applying actual CSX train counts to each section. Train counts were calculated using the 2019 September through November actual train movement ("OS Data") data from CSX. Average train counts in the northward and southward directions were established for each single track to siding segment. These counts are summarized below in Figure 7.

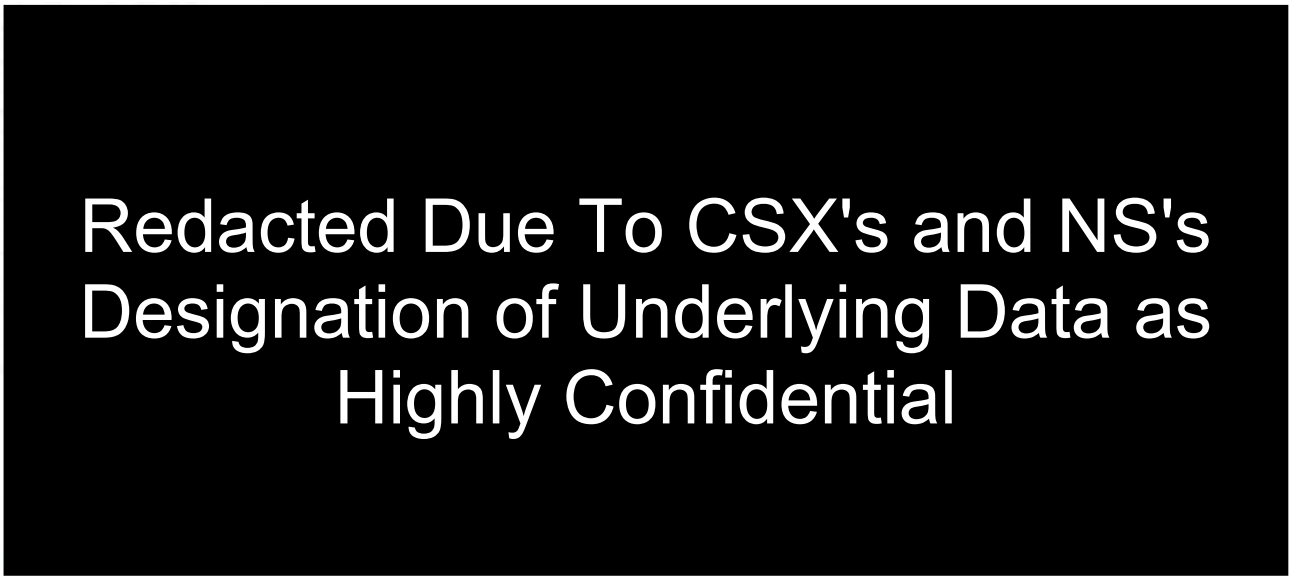


Figure 7 - Gulf Coast Corridor average freight train counts

Variability

The operation of a train, especially of a freight train, can be highly variable in run time across the corridor. Factors such as enroute work events to set out and pick up railcars, terminal congestion, temporary speed restrictions, drawbridge operation, or differences in train weight or length impact the run time. Our methodology accounts for this variability through the calculation of a variability metric.

The variability metric is calculated using an aggregation of actual observed run times from the CSX OS Data compared to the planned run time of the standard train. From this we can establish a ratio of the additional units of capacity consumed for each freight train operated. As shown below in Figure 8 the average additional units of capacity consumed on the Gulf Coast Corridor is very similar in the northward (Mobile-bound) and southward (New Orleans-bound) directions. We rounded up both calculations to the nearest tenth of a percentage. This established the variability metric as 1.4. This means that for every freight train operated, an additional 1.4 units of capacity is consumed in variability.

Redacted Due To CSX's and NS's Designation of Underlying Data as Highly Confidential

Figure 8 - Freight slot variability by day

Train Staging

Congestion near terminal facilities occasionally result in trains being held out of the terminal for several hours until the terminal can process the train. This activity is called train staging. Our methodology accounts for this train staging activity. We chose 3 hours as the cutoff for train staging. A train that records over a 3-hour delay between control points is considered "staged" for our calculations.

Track Maintenance

Railroad tracks require periodic maintenance and inspections to remain in a reliable condition. Our methodology uses a set assumption on the amount of capacity units consumed by Maintenance of Way ("MOW") activities. Absent an assumption communicated by CSX or NSR, we calculated units consumed from MOW activities using Rail Traffic Controller ("RTC") PERMIT inputs from the 2021 RTC study.

The 2021 RTC study separated the Gulf Coast Corridor into three sections. Each section had a uniform distribution for the likelihood of track outage to start in a particular hour of the day, and the duration of the outage. Using this input, we modeled 30 calendar days of track outages via Monte Carlo simulation. The resulting

parameter was an average number of hours for MOW activities per track per day. MOW activities consume 2 hours per day per track.

Trains Entering and Exiting Facilities

Trains that are entering and exiting terminals consume additional main track capacity as they operate at a slower speed either exiting or entering the terminal. 2019 OS Data provided train movement timestamps at NO&M CPs and allowed us to determine origin-destination pairs for all train symbols. It was determined that local movements consume additional capacity due to entering and exiting facilities on the corridor.

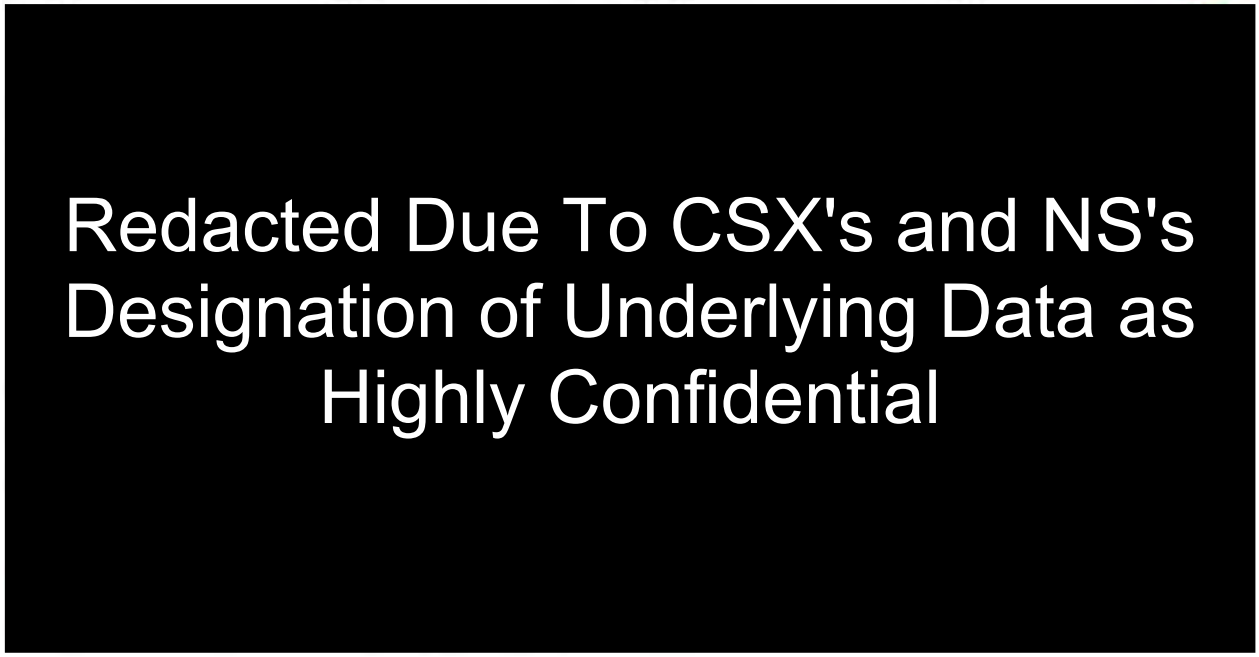


Figure 9 – Regular local movements were mapped out to assign capacity consumption values for each segment

Regular local movements were mapped out to assign capacity consumption values for each segment. Each local movement in and out of the facility has been modeled to determine unit capacity consumption at each segment. The corridor features multiple facilities with daily movements. We plotted capacity consumption impact of each facility on each segment and determined that Bayou Cassotte yard has an inordinate

impact. Bayou Cassotte on average consumes the 7 slots (~15%) of capacity per day and upgrades should be explored after introduction of Amtrak's Gulf Coast Service.

Gulf Coast Corridor demand without proposed Amtrak service

As seen in Figure 10, without the inclusion of the proposed Amtrak Gulf Coast service, all sections of the Gulf Coast Corridor have capacity remaining for additional services. Track two between Choctaw and Mobile is fully consumed. However, track 1 where the proposed Mobile platform will be located, has capacity available.

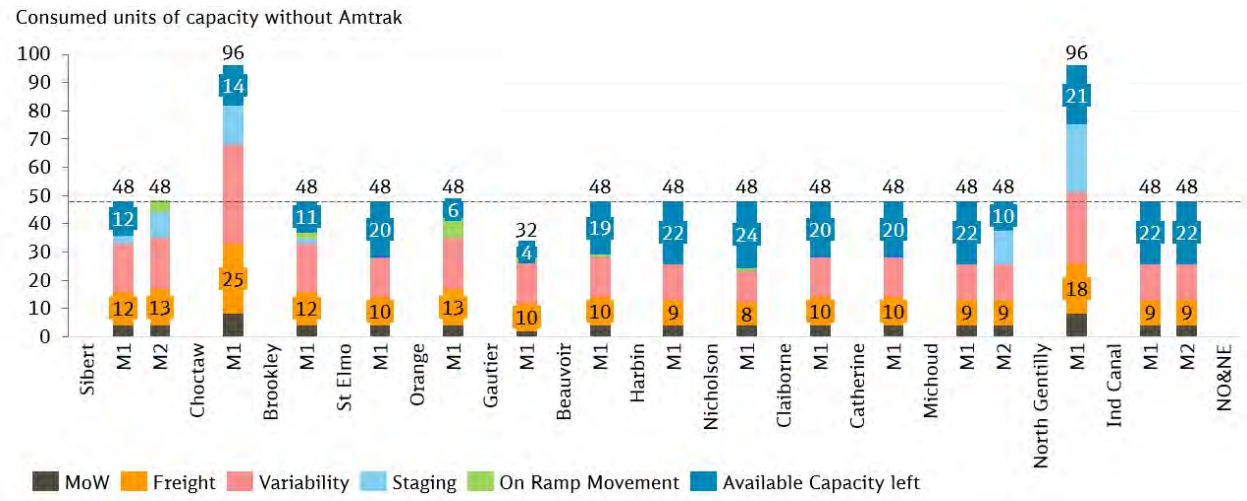


Figure 10-Gulf Coast Corridor capacity unit consumption prior to inclusion of Amtrak service

The Choctaw to Brookley section and North Gentilly to Industrial Canal sections have higher demand, but they also have a higher units of capacity and therefore have additional capacity. The section from Orange Grove to Gautier has six units remaining and finally the section between Gautier and Beauvoir has four units of capacity remaining.

The proposed Amtrak Gulf Coast Service would consume four to six units of capacity in each section on the corridor (Figure 11). Each individual train consumes one or two units of capacity depending on direction and section. The 2021 Gulf Coast RTC Study

states that passenger trains consume more capacity than freight trains[2]. That is true on many predominately-freight corridors in theory. However, when factoring for the additional capacity consumed by freight train variability, freight operations often consume more capacity than a passenger train.

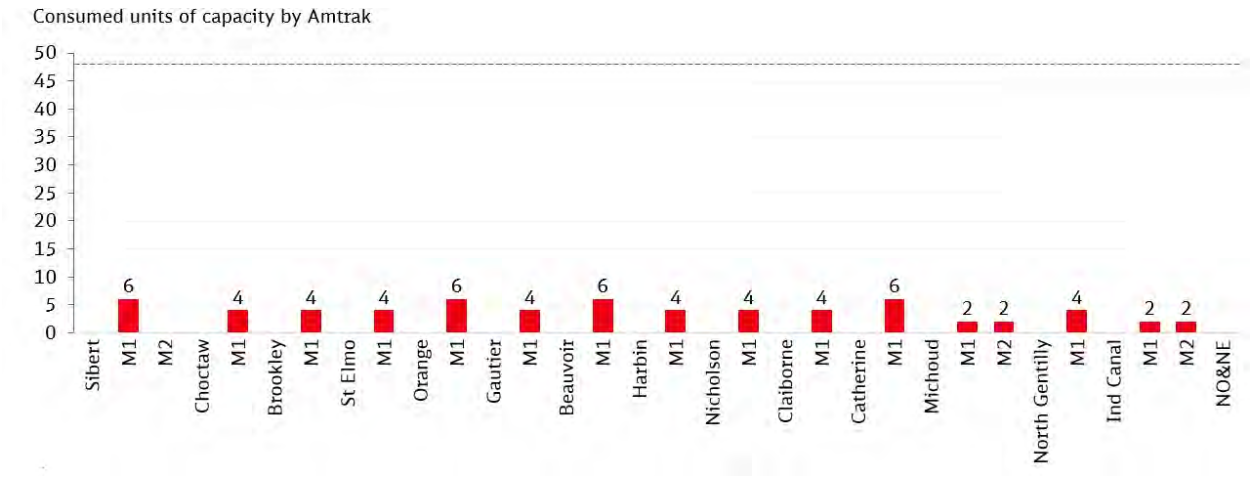


Figure 11 – Amtrak Consumed Units of Capacity

[2] 2021 Gulf Coast RTC Report at 15 §1.2

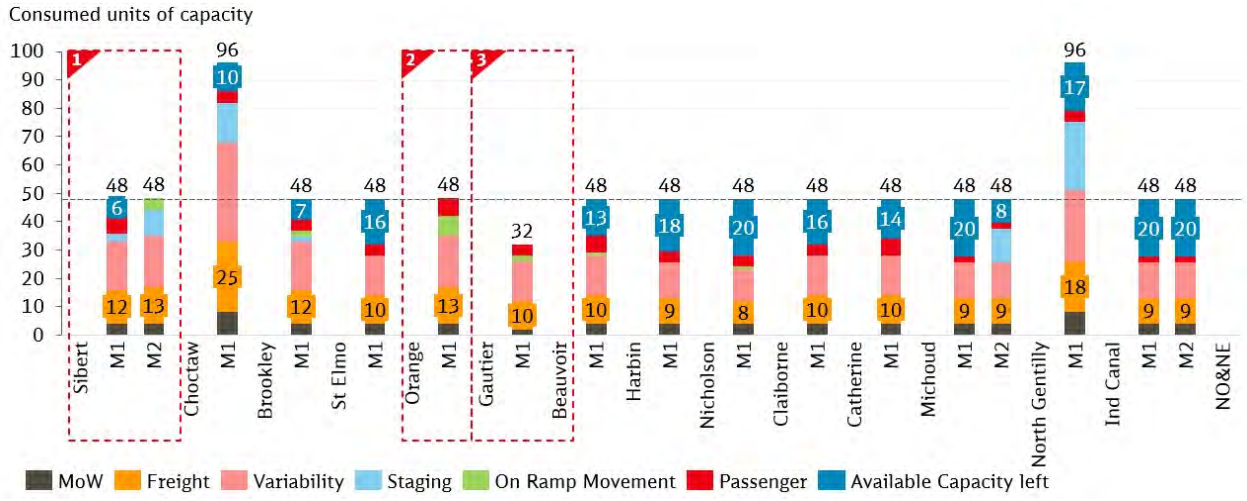


Figure 12 – Gulf Coast Corridor capacity consumption with Amtrak service and areas identified for action

When including the Amtrak capacity consumption onto the corridor (Figure 12), no sections exceed the available capacity. Therefore, the Amtrak Gulf Coast service could be initiated without any immediate infrastructure improvements. There are two sections that will be fully allocated and one track in Mobile that is fully allocated. Operational efficiency improvements, or infrastructure improvements should be explored in these sections.

1. Mobile Station
    a. A station siding track at the proposed Mobile Station will minimize non-revenue movements and preserve capacity on the main tracks
2. Orange Grove to Gautier
    a. Powered turnouts at the ends of the Bayou Cassotte Yard at MP 000 706.0 and MP 000 702.3 to mitigate the impact of train crews operating the manual track switches
3. Gautier to Beauvoir

a. Increase maximum authorized freight train speeds to 60 MPH OR
b. Extension of the Ocean Springs siding by 6000 feet

Mobile to Brookley

Based on information presented in the 2016 HDR Report, traffic between CP Choctaw and CP Alabama State Docks tends to consume capacity through staging on a mainline. If the proposed Gulf Coast Service operates on track 1, there is sufficient capacity to handle the proposed operation of Gulf Coast passenger service arriving and departing Mobile, but insufficient capacity to handle the non-revenue movement of trains to and from Choctaw Yard (as is currently proposed by Amtrak). Construction of a station pocket track would allow an Amtrak train to 1) quickly enter/exit the main track and 2) conduct its boarding/alighting and 3) perform layover activities. Doing so on a dedicated pocket track would prevent the continuous consumption of capacity on a mainline. Constructing a stub ended pocket track with a powered switch would prevent the additional consumption of capacity, saving up to 4 units of capacity.

Orange Grove to Gautier

The section from Orange Grove to Gautier will have an exactly balanced supply and demand of capacity. While this indicates no need to make improvements here immediately, Bayou Cassotte yard powered turnouts on the leads into the yard at MP 000 706.0 and MP 000 702.3 should be explored to improve entry and exit times from the yard.

Gautier to Beauvoir

The section from Gautier to Beauvoir will have an exactly balanced supply and demand of capacity. While this indicates no need to make improvements here immediately, we have identified two options for expanding supply to exceed demand in the near-term.

Option 1:

Increase operating speeds for freight trains in this segment to 60MPH maximum through the entire segment. This will add eight additional capacity units.

Option 2:

Extend the Ocean Springs siding by at least 6,000ft to shorten the single-track sections between Gautier and Beauvoir. This option will add 16 additional capacity units.

R.L. Banks/HNTB 2021 Gulf Coast RTC Report

We applied our methodology to the results from the 2021 Gulf Coast RTC Report developed by R.L. Banks and HNTB to compare the additional supply of units of capacity resulting from their analysis with our analysis.

We developed a separate version of our Gulf Coast Corridor Viriato model specifically for the projects proposed by the 2021 Gulf Coast RTC Report. For this analysis we utilized the same Standard Train as we used in our own analysis. Using the Standard Train and the proposed projects we created new slots that aligned with the infrastructure as proposed.

The results of that analysis are summarized below in table 1.

The 2021 Gulf Coast RTC Report has identified 11 locations along the Gulf Coast Corridor that require infrastructure improvements prior to initiation of Amtrak Gulf Coast Service (the 2019 improvements). The DB report has identified 3 locations on the corridor that improvements should be considered to balance capacity supply and demand. All three of the locations identified by DB were identified in the 2021 Gulf

Coast RTC Report. However, except for a Mobile station track, our solutions require less infrastructure investment.

Table 1 – Comparison between DB study and 2021 Gulf Coast RTC Study recommendations and their changes in the supply of units of capacity

Section	DB Capacity	DB Improvements Net Change	2021 RTC Study Net Change
Alabama State Docks to Choctaw (Main 1)	48	0	0
Alabama State Docks to Choctaw (Main 2)	48	0	0
Choctaw to Brookley	96	0	0
Brookley to Saint Elmo	48	0	+2
Saint Elmo to Orange Grove	48	0	+4
Orange Grove to Gautier	48	0	+4
Gautier to Fountainbleu[3]	32	+16	+66
Fountainbleu to Beauvoir	32	+16	+8
Beauvoir to Harbin	48	0	+6
Harbin to Nicholson	48	0	+12
Nicholson to Clairborne	48	0	+26
Clairborne to Lake Catherine	48	0	0
Lake Catherine to Michoud	48	0	0
Michoud to North Gentilly (Main 1)	48	0	0
Michoud to North Gentilly (Main 2)	48	0	0
North Gentilly to Industrial Canal (Main 1)	96	0	0
North Gentilly to Industrial Canal (Main 2)	0	0	+96[4]
Industrial Canal to NO&NE Tower	48	0	0
NO&NE Tower to East City Junction	48	0	0

The recommendations for infrastructure improvements increase corridor capacity (e.g connection of sidings, construction of double track, construction of new sidings), and power up switches that would expedite industrial track to mainline freight activity . With the exception of a new siding between Gautier and Beauvoir, a Mobile

3 DB is not recommending a siding at Fountainbleu. Using Fountainbleu as a point between Gautier and Beauvoir to align with the 2021 Gulf Coast RTC Study. +16 change Gautier to Fountainbleu and Fountainbleu to Beauvoir represents the suggested siding extension at Ocean Springs.

[4] 2021 Gulf Coast RTC Study adds an additional main track in this section. DB does not recommend any improvements.

layover facility, and powering up Cassotte yard switches, the recommended infrastructure would go above and beyond CSX's current capacity needs, and the growth forecasts. Without these extra improvements the remaining units of capacity available to operate trains, work events, and proposed New Orleans-Mobile service will be sufficient to handle the volume listed in CSX's operating goals.

Norfolk Southern

The bulk of the journey for Amtrak's proposed Gulf Coast Service between New Orleans and Mobile is on CSX property. Approaching New Orleans, the proposed service would traverse 3.3 miles of Norfolk Southern's Back Belt Line to connect to Amtrak's New Orleans Union Passenger Terminal subdivision. The NS Black Belt subdivision hosts one Amtrak round trip per day, Amtrak's Crescent Service that operates between New Orleans and New York City which operates between East City Junction east to the end of the subdivision at Oliver Jct.

In either direction, the proposed Amtrak Gulf Coast service routing across NSR property requires entering or exiting CSX at CP Elysian Fields onto the Southward track, and crossing over to the Northward track at or before reaching East City Jct. In the 3.3 miles Amtrak must traverse, there are 3 opportunities to perform this cross-over.

We reviewed potential conflict scenarios against actual 2019 OS data. Data from 2019 shows both the Northward and Southward tracks to be unoccupied for 75% of the day. Amtrak Gulf Coast service would require an available route for approximately 28 minutes per day between Elysian Fields and East City Jct. (7 minutes for each of the 4 trains), or 2% of the day. Should freight activity be occurring during these Amtrak movements, there are 3 opportunities for trains to maneuver around each other

NSR had proposed the installation and reconfiguration of crossovers prior to activation of the proposed Amtrak Gulf Coast Service. Most of what is proposed is of no immediate benefit to Amtrak's proposed Gulf Coast Service. Of interest to the proposed Amtrak Gulf Coast Service on the corridor is NSR's proposal to build a connection at Elysian Fields between CSX 2 and NSR's Southward track. Presently CSX 2 only connects to the NSR's Northward track. If a train is routed between CSX 2 and NSR's Northward track it would create a conflict for freight trains getting into or out of Oliver Yard. Provided that NSR and CSX dispatchers coordinate their movement, this constraint will not inhibit Amtrak's proposed Gulf Coast Service, or the impair NSR's ability to operate freight service. If passenger service is ever adjusted that two Amtrak trains are scheduled to meet at or near Elysian Fields careful coordination will be required between CSX and NSR including the possibility of building a connection between NSR's Northward and CSX's track 2.

V. GLOSSARY

Capacity Marketplace – A railroad planning methodology developed by DB E&C USA that facilitates a market style comparison of railroad capacity and demand

Unit of Capacity – A unit of measurement that is used quantified the capacity on a railroad line

Standard Train - A train that is representative operational profile of that captures the characteristics of most trains on a corridor

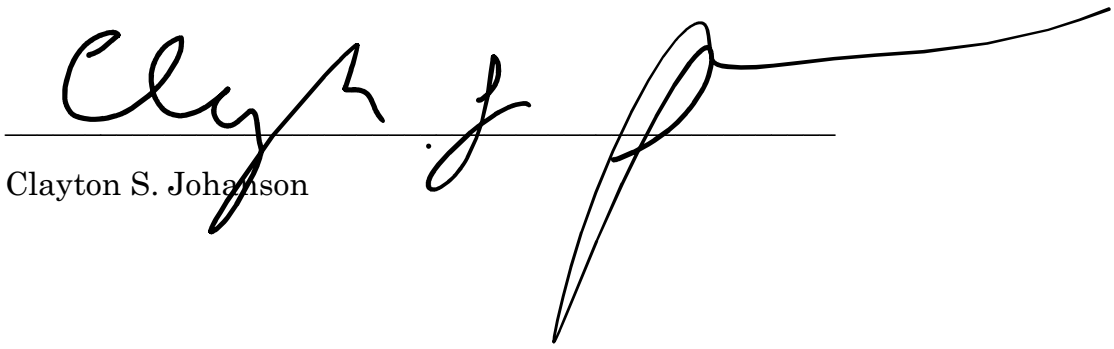
Viriato – A planning tool used in the development of railroad service plans and infrastructure needs

Variability Metric - A measure of the inefficiencies in rail operations based on actual performance deviation from the standard train profile

VERIFICATION

I, Clayton S. Johanson, declare under penalty of perjury that the foregoing information is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on this 3rd day of December, 2021.

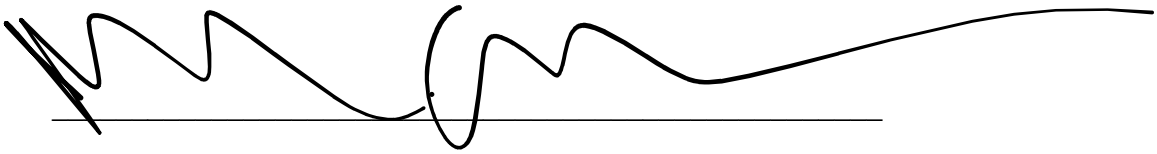


Clayton S. Johanson

VERIFICATION

I, Michael Weaver, declare under penalty of perjury that the foregoing information is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on this 3rd day of December, 2021.

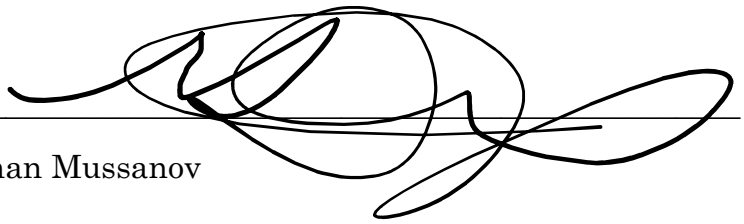


Michael Weaver

VERIFICATION

I, Darkhan Mussanov, declare under penalty of perjury that the foregoing information is true and correct. Further, I certify that I am qualified and authorized to file this statement.

Executed on this 3rd day of December, 2021.



Darkhan Mussanov

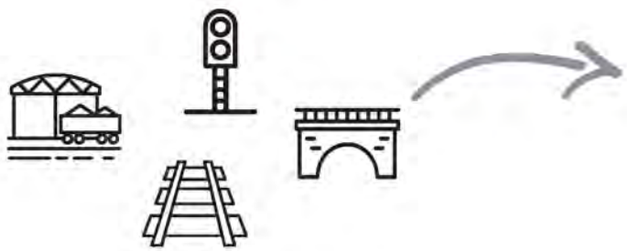
Amtrak Gulf Coast Service

Final Report
Appendix A to Verified Statement

Prepared by DB Engineering & Consulting USA, Inc. for the National Railroad Passenger Corporation (Amtrak)

Mixed rail corridors present challenges that can be mitigated when cooperative service planning with all partners is undertaken from the outset.

The shaded area represents a hypothetical railroad composed of infrastructure such as tracks, signals, bridges, and terminals.



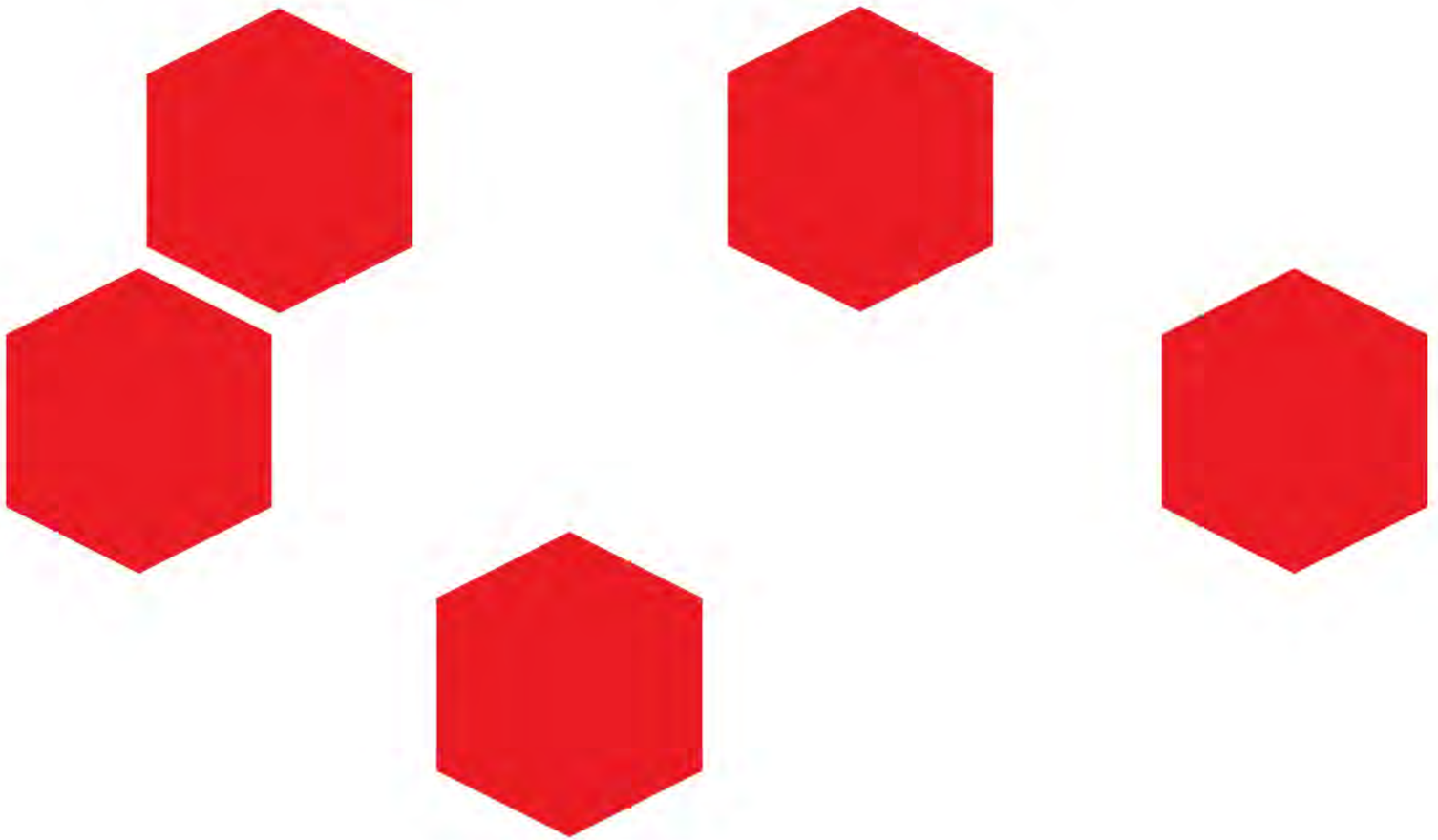
Corridor capacity supply

Freight train footprint

Passenger train footprint

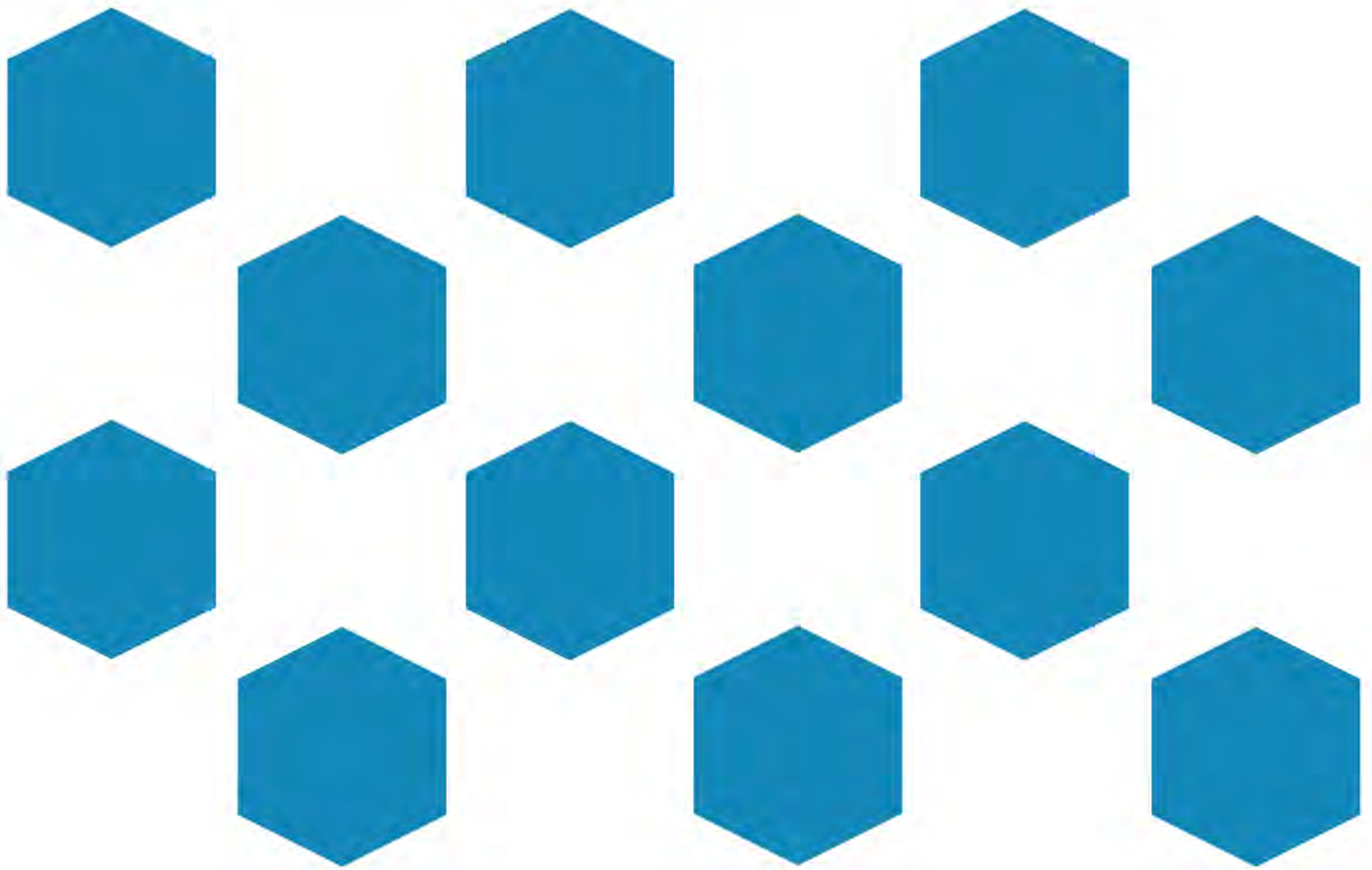
Mixed rail corridors present challenges that can be mitigated when cooperative service planning with all partners is undertaken from the outset.

On this hypothetical railroad, freight services often run at inconsistent times, with diverse train lengths, weights, speed, and service priorities. The inconsistency and diversity of service creates challenges developing the right level of infrastructure to support service without overinvesting in a corridor.



Mixed rail corridors present challenges that can be mitigated when cooperative service planning with all partners is undertaken from the outset.

Passenger services on the hypothetical railroad are more reliable with less variability in train length, speed and service patterns. Their regularity makes it possible to develop minimal infrastructure that is needed to support the operating plan.



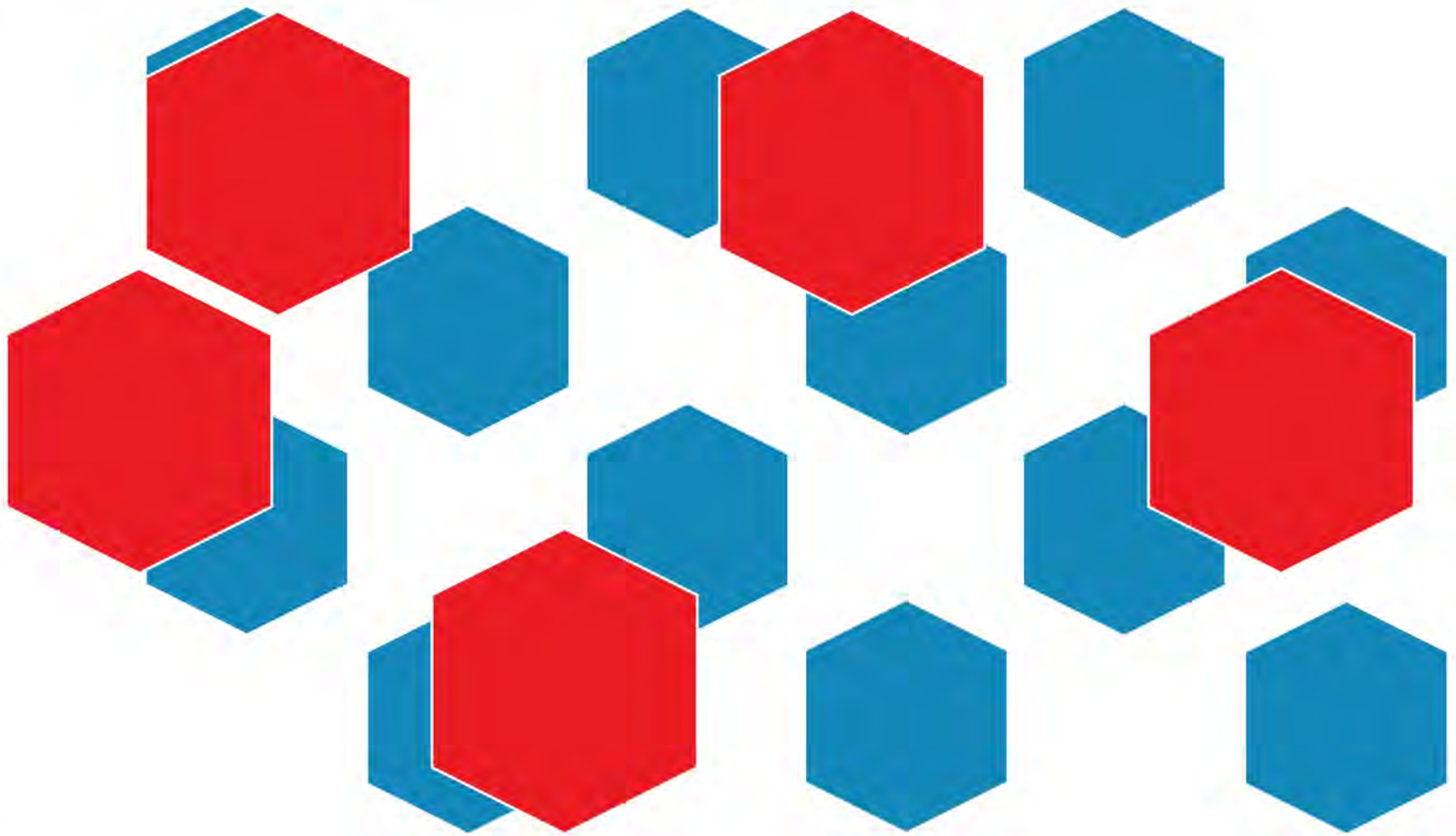
Corridor capacity supply

Freight train footprint

Passenger train footprint

Mixed rail corridors present challenges that can be mitigated when cooperative service planning with all partners is undertaken from the outset.

When freight and passenger operations are combined on the corridor the competition for use of infrastructure causes operating plans for both operators to be redistributed to balance the competition for capacity with the supply of capacity available.



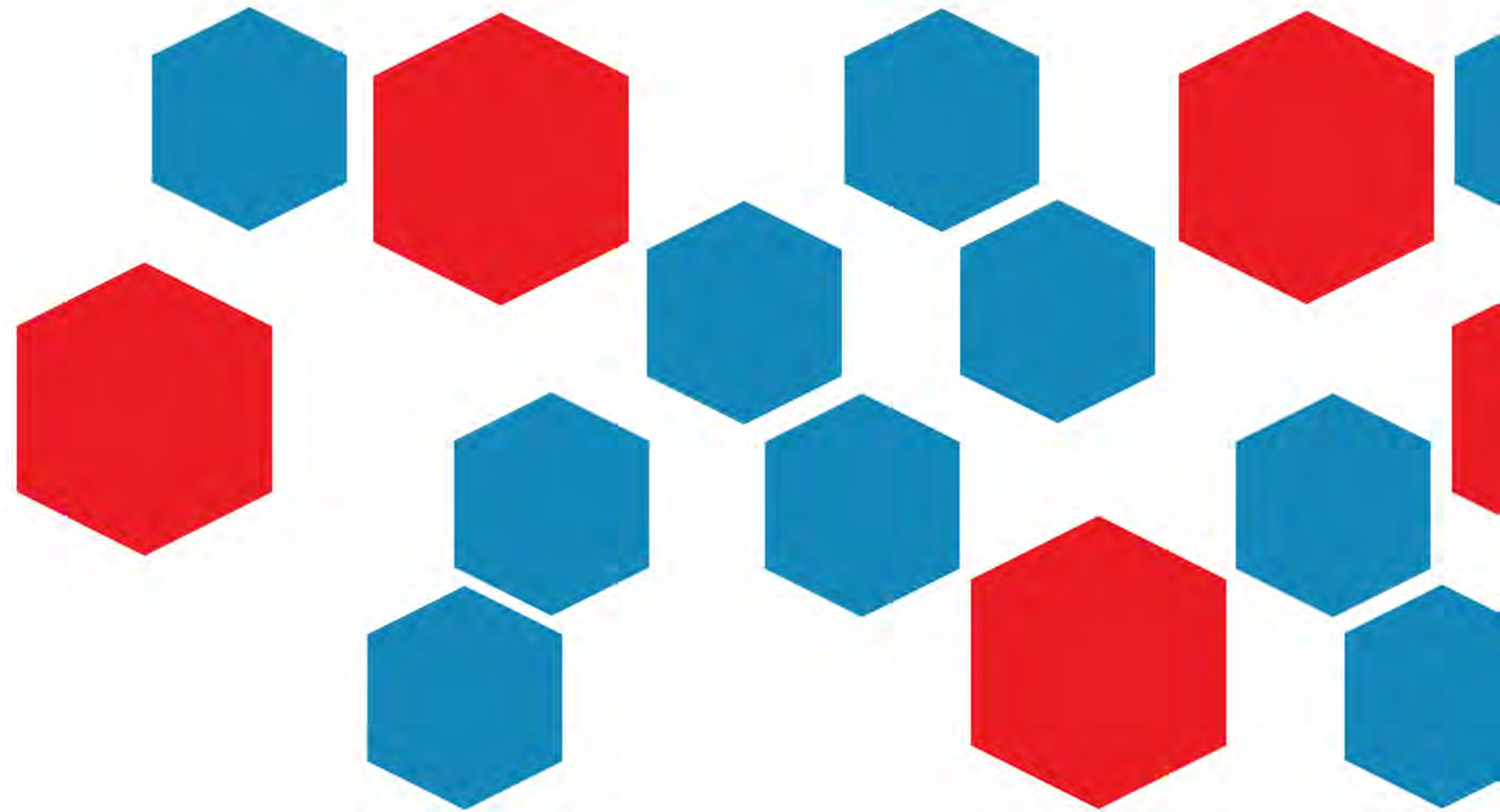
Corridor capacity Supply

Freight train footprint

Passenger train footprint

Mixed rail corridors present challenges that can be mitigated when cooperative service planning with all partners is undertaken from the outset.

When cooperative service planning doesn't occur, the result is operating plans that do not fully utilize the available supply of capacity and drive the need for further infrastructure investment.

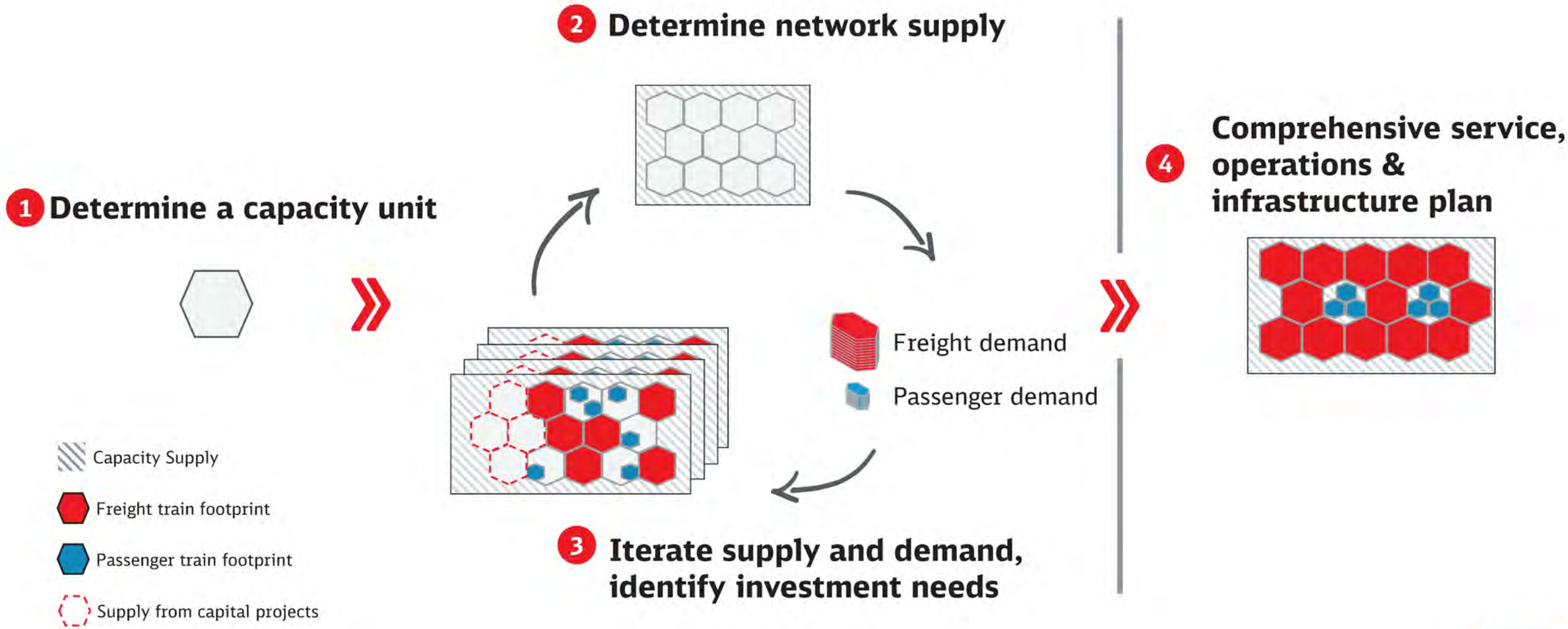


Corridor capacity supply

Freight train footprint

Passenger train footprint

We have developed and applied a new service-centric approach to support train growth in mixed-use corridors.



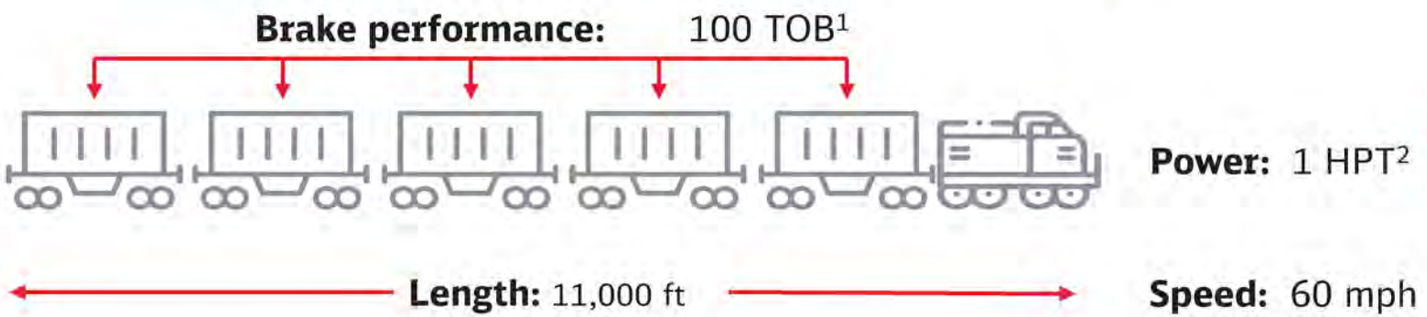
We establish a capacity unit, called a “standard train” to form the basis of our analysis.

The standard train is developed using real world operating data provided by CSX. The historic data, combined with operating rules that govern train movement leading to the creation of the standard train.

Service characteristics

Operating rules

Historic data



Power: 1 HPT[2]

Speed: 60 mph

Unit of Capacity

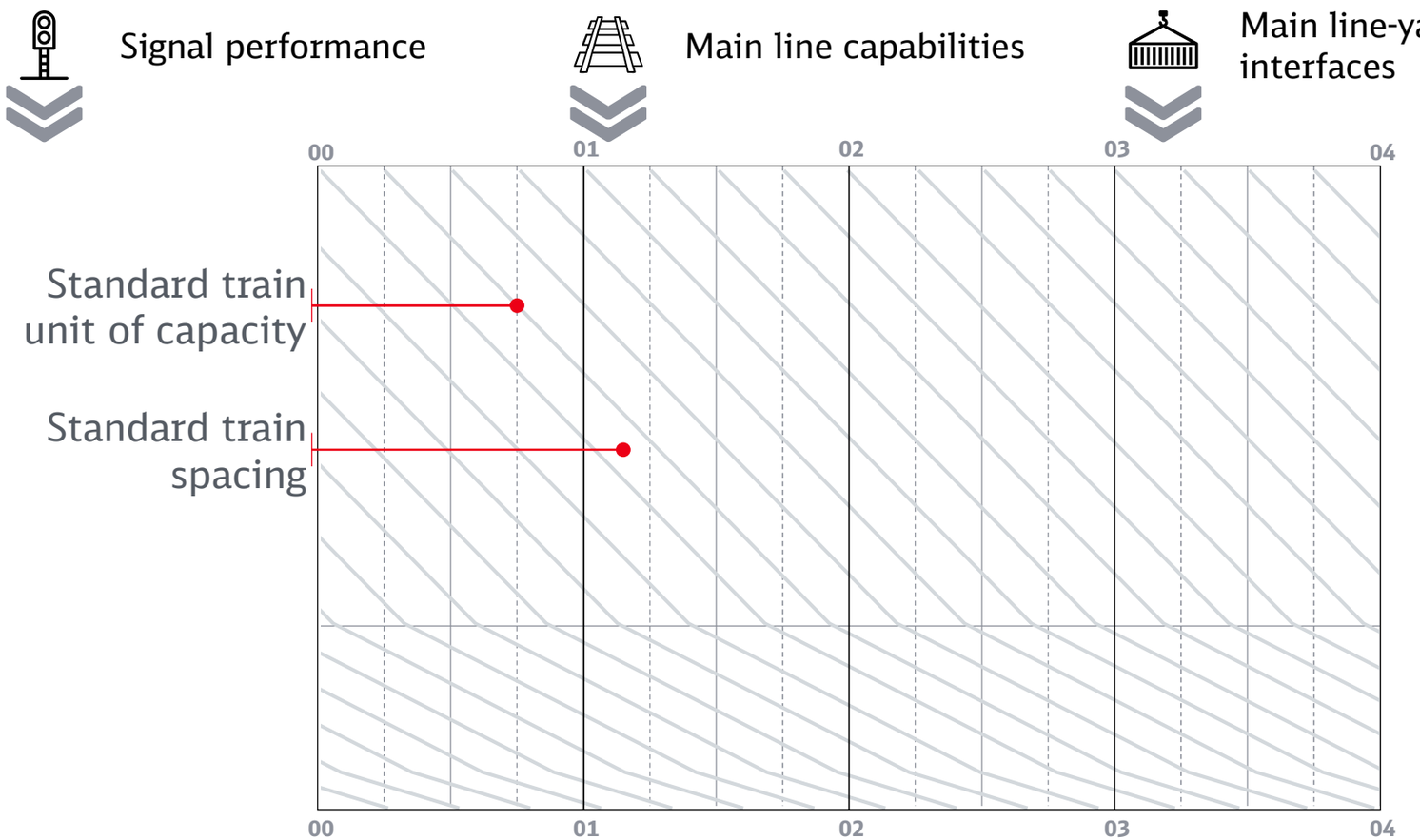
The standard train becomes our unit of capacity for measuring the supply and demand on capacity.

The development of the standard train does not limit CSX to a maximum train length. Rather it encompasses most train types CSX operated in 2019 and provides a point of comparison for operating decisions made in future years.

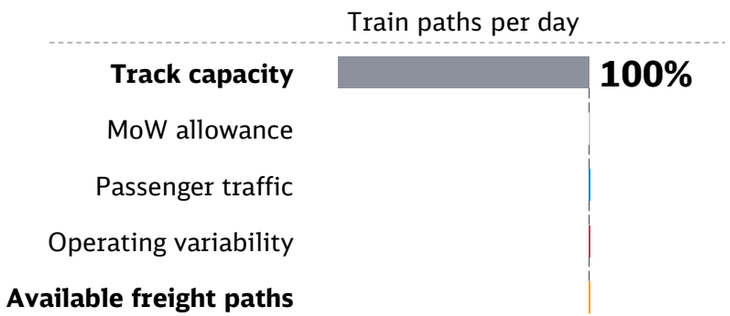
(1) Tons per operative brake (2) Horsepower per ton

Like gridlines on paper, the train paths visualize capacity supply to assess utilization and frame benefit and trade-off discussions.

Paths are created for standard trains with physical characteristics like the signal system performance, main track capabilities, and main line-yard interfaces. Just how gridlines provide structure to the use of a sheet of paper, the paths visualize the track capacity and how it is consumed.



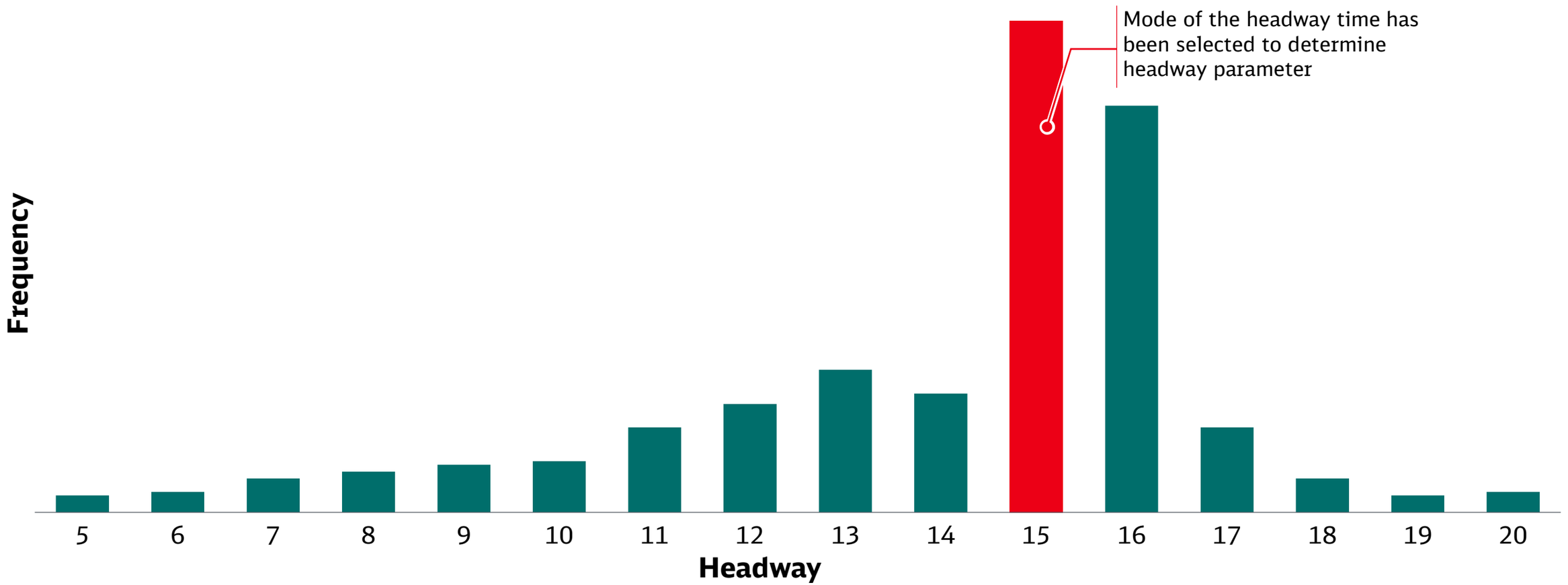
Supply



The paths do not require CSX or NSR to operate to a strict schedule or pattern. It is simply a way to understand tradeoffs between decisions. This structure is the capacity marketplace where participants in the market, such as CSX, NSR, Amtrak, and TASD can evaluate the capacity costs of their operating decisions.

We utilize actual train movement data from the signal system (“OS Data”) to determine the minimum spacing between trains on the corridor (“headways”).

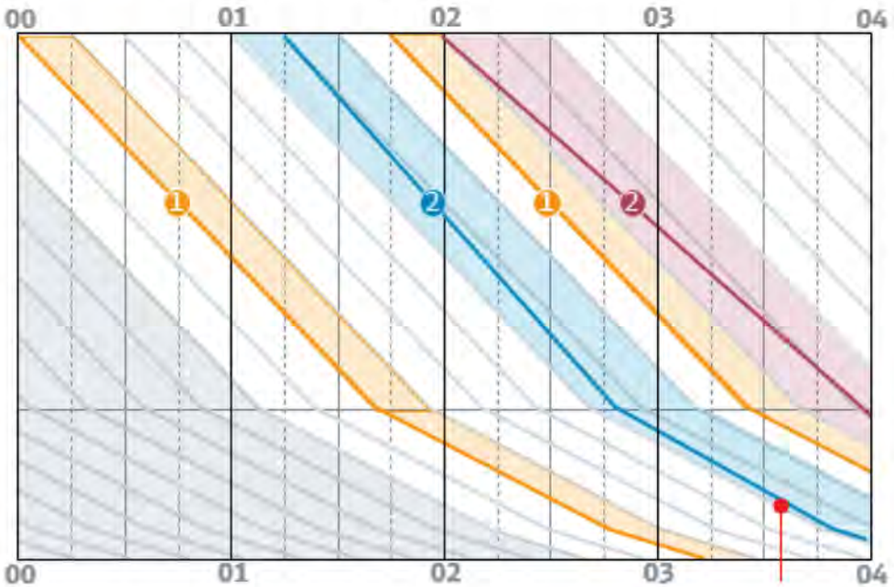
By determining minimum headways between train, we can establish how often trains can be operated on the corridor.



The method enables operators to compare operating plans, and operating decisions against the capacity metric and understand capacity utilization.

Trains consume different levels of capacity. Many trains will operate to the path of the standard train and consume one unit of capacity. Amtrak trains, due to their speed and operating plan, may consume two units of capacity. Trains that are excessively long, operate slower, or perform switching moves enroute may consume additional units of capacity.

❶ Units of capacity consumed



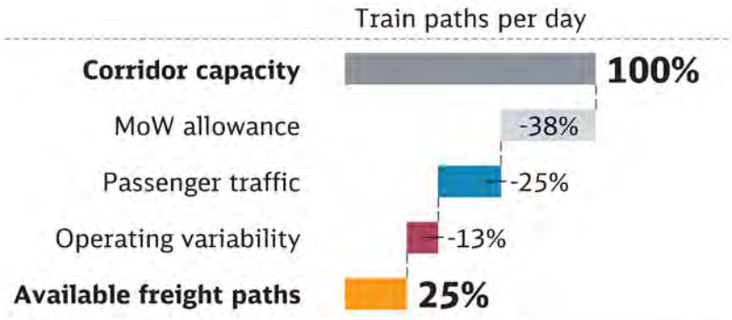
Illustrative

Brake performance:	100 TOB[1]
Power:	3 HPT[2]
Speed:	50 mph
Length:	8500 ft

Headway: 15 minutes

Illustrative

Capacity utilization



Trains, Amtrak or freight, that consume more than one unit of capacity are not necessarily problematic. It is the result of a tradeoff made by the operator to preference service, operational or cost aspects like maximum speed, train length, or enroute work events. This methodology does not penalize the decisions, it places context on the consumption of capacity and allows decision makers in the marketplace to evaluate the cost of their decisions.

Our methodology provides visibility for operators to consider operational efficiencies that free up capacity and mitigate the need for capital investment.

1 Develop Capacity Units

- Train performance
- Operating rules
- Feedback from Operator

2 Calculate Capacity Supply

- Signal performance
- Main line capabilities
- Main line-yard interfaces

3 Apply Capacity Demand

- Freight service footprint
- Passenger service plans
- MOW Requirements

Iteratively reviewed

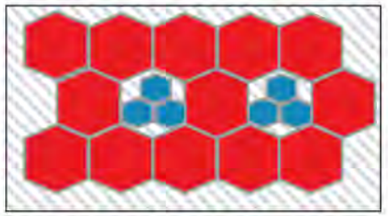
Assess supply/demand gap and project impact
Update framework

4 Established operating plan and project list

- Freight and passenger services slot list
- Prioritized list
- Framework for operators

Our methodology allows operators to link capital projects or operating changes directly back to the service and operation improvements that they will deliver. Projects can be phased as passenger or freight service grows.

Comprehensive service, operations & infrastructure plans

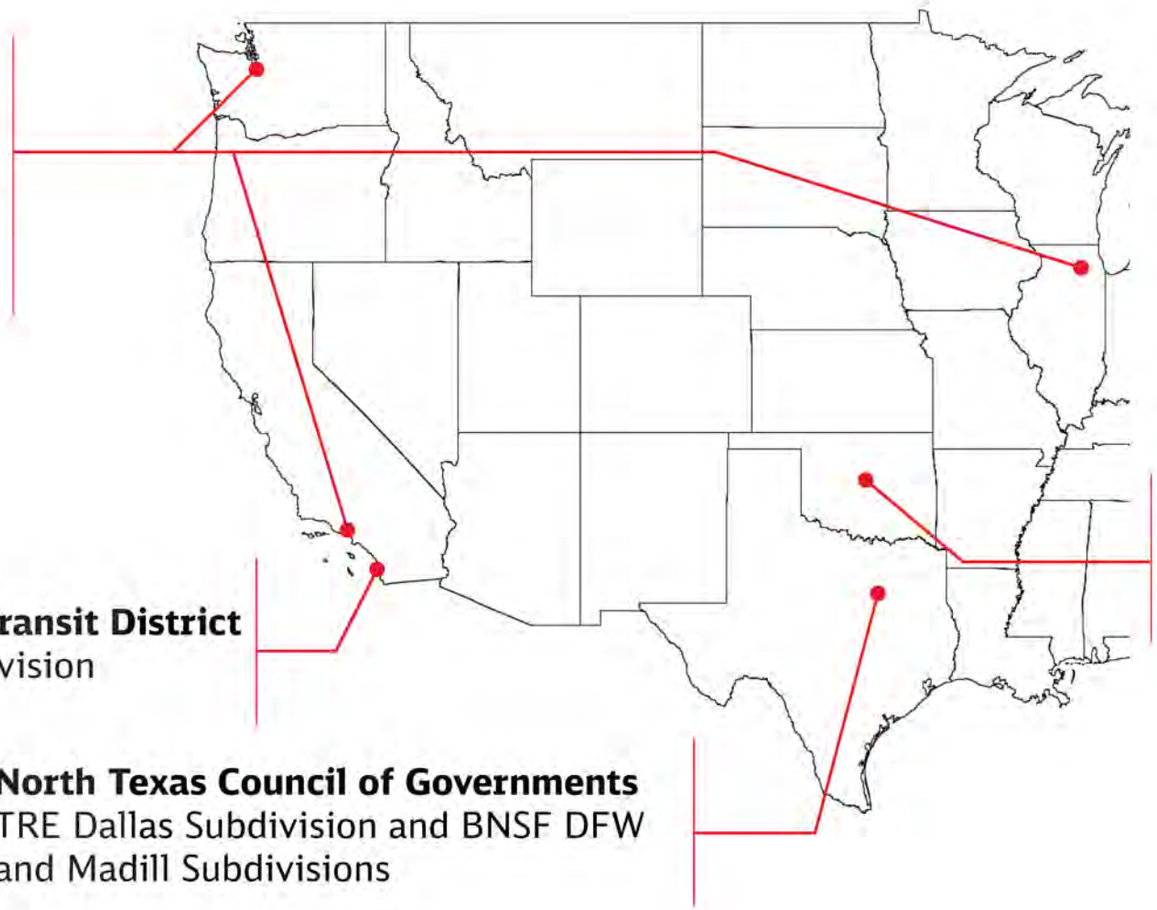


Illustrative

Prioritized project list	Service delivered
Signaling and interlocking improvement Part 1 Station 1 Yard staging improvements	Hourly passenger slot 35 Freight slots
Phase 1 total $	
Station 2 Signaling and interlocking improvement Part 2 Yard upgrade Part 1 Yard Connection track	Every 30 min passenger slot 51 Freight slots
Phase 2 total $	
Yard west second lead track Yard East second lead track Construct 3rd track to Eastern limit	Every 30 min passenger slot with peak overlay 65 Freight slots
Phase 3 total $	
Yard upgrade Part 2 Intermodal yard Yard and mainline realignment 4th Main track	Every 15 min passenger slot 71 Freight slots
Phase 4 total $	

Our methodology has been used for planning on multiple corridors featuring a blend of freight and passenger operations.

BNSF Railway
San Bernardino Subdivision
Seattle Subdivision
Mendota Subdivision

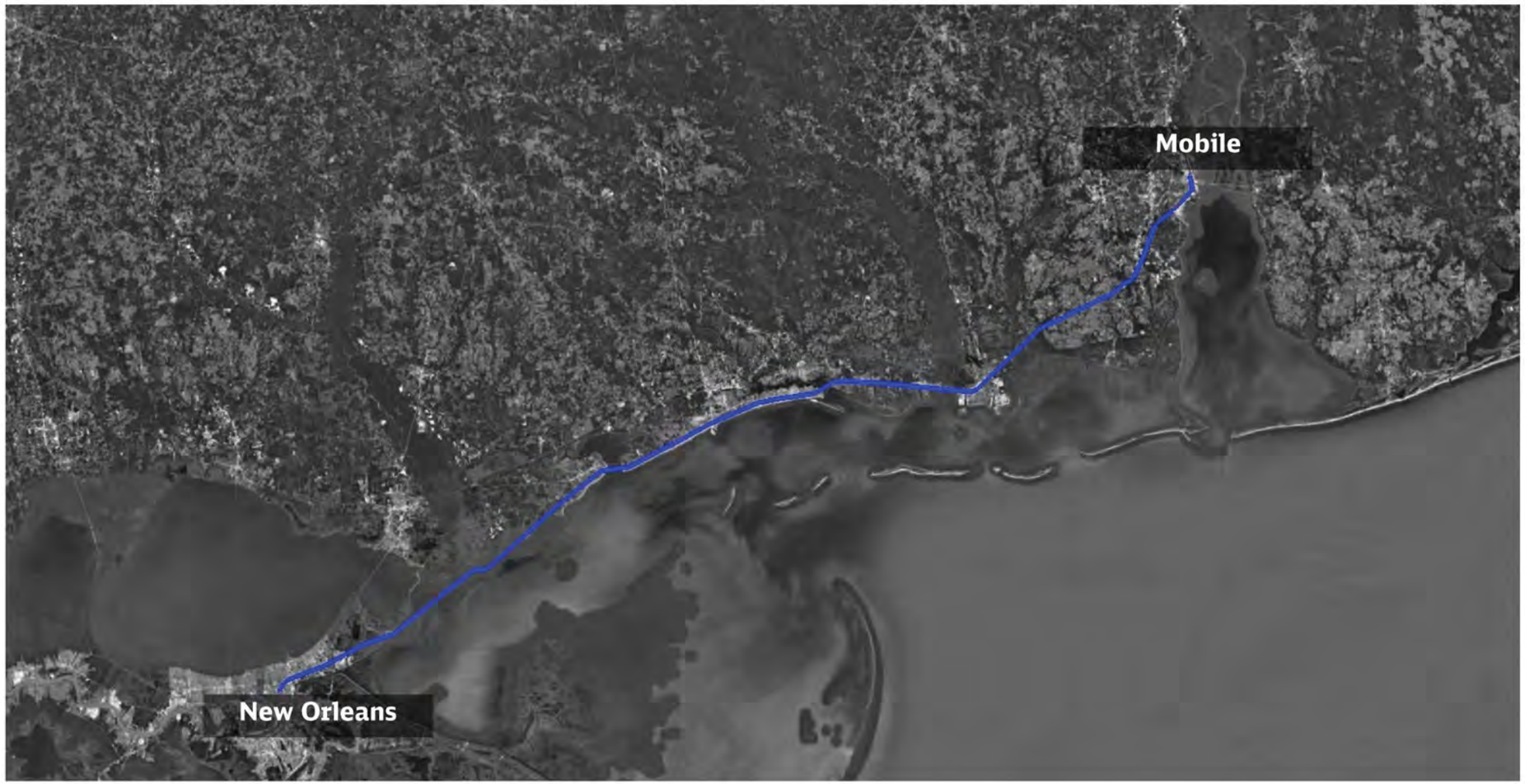


RTA of Central Oklahoma
BNSF Red Rock Subdivision

North County Transit District
San Diego Subdivision

North Texas Council of Governments
TRE Dallas Subdivision and BNSF DFW and Madill Subdivisions

We analyzed the CSX NO&M Subdivision from NOT Tower to Control Point Sibert in Mobile, AL and NS's Back Belt from Elysian Fields to East City.



We established a train capacity unit on the corridor based on observed operations and infrastructure carrying capabilities.

The standard train is derived from the November 1, 2017 CSX NO&M timetable rules, Sep.-Nov. 2019 CSX OS train data on the NO&M Subdivision, and horsepower-per-ton ratios from the 2016 HDR RTC Report. The standard train then drives the planning process. Based on the standard train we can derive an operating profile for the standard train and initiate capacity planning.

Redacted Due to CSX's and NS's Designation of Underlying Data as Highly Confidential

Operating data revealed 15-minute headway as a key parameter for determining the throughput across the entire corridor.

2019 operating data reflects distribution of headways on the corridor between Mobile and New Orleans. Headways are the minimum unconstrained following distances between trains. 15-minute headway parameter was selected as headway mode between most control points.

Redacted Due To CSX's And NS's Designation Of Underlying Data As Highly Confidential

We establish planning parameters to ensure consistent service development throughout the study process.

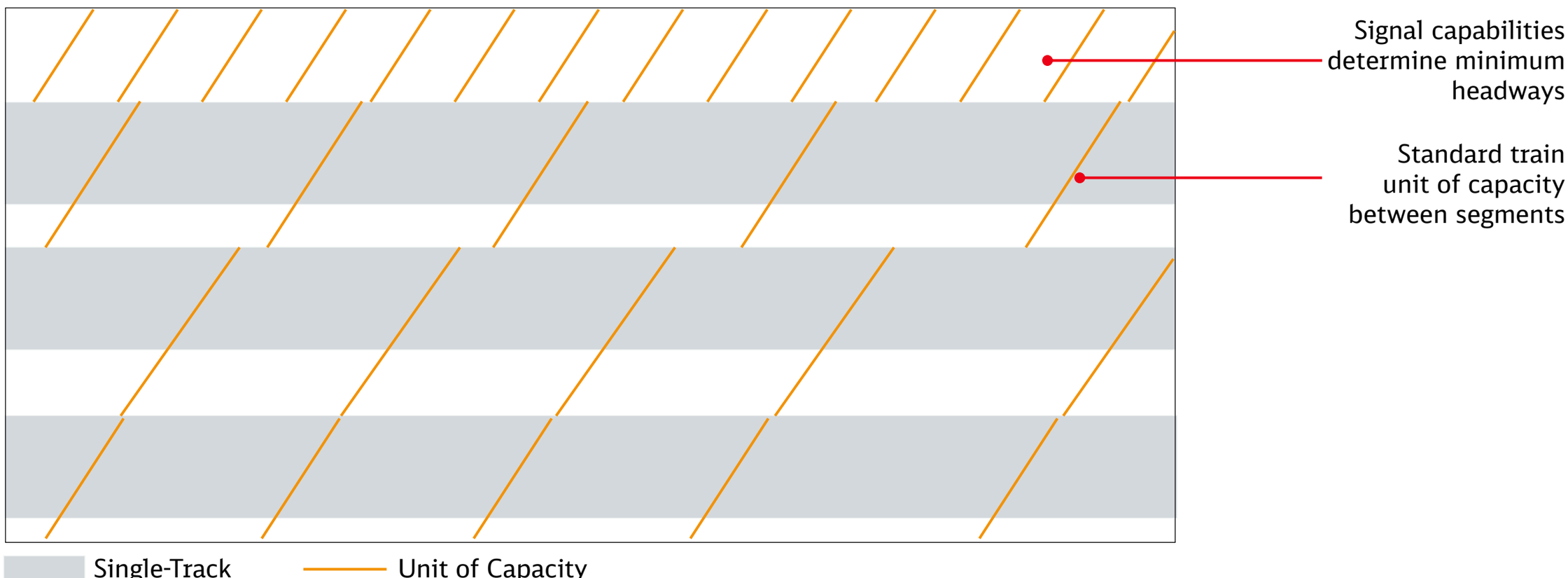
Planning parameters are derived from the standard train developed, calculated signal system headways, and passenger service timetable provided by Amtrak

Parameters	Train Type: Freight	Train Type: Passenger
Consist	4 4400 HP Locomotives 11,000 feet 17,000 Tons	1 P42-8 locomotive 4 Superliner passenger coaches[1]
Signals	Headways: 15 minutes Separation: 7 minutes	Headways: 7 minutes Separation: 3 minutes
Recovery	10% Distributed Recovery	5% distributed recovery Segment recovery as used by Amtrak provided schedules

(1) 2021 Gulf Coast RTC Report used 2 locomotives in push-pull and 3 Amfleet coaches. Our modeled train while different does not affect the outcome

Units of capacity for each section of the corridor were created to determine carrying throughput on each segment.

Paths are created for standard trains accounting for physical characteristics like the signal system performance, main track capabilities, and mainline-yard interfaces. Just how gridlines provide structure to the use of a sheet of paper, the paths visualize the track capacity and how it is consumed.



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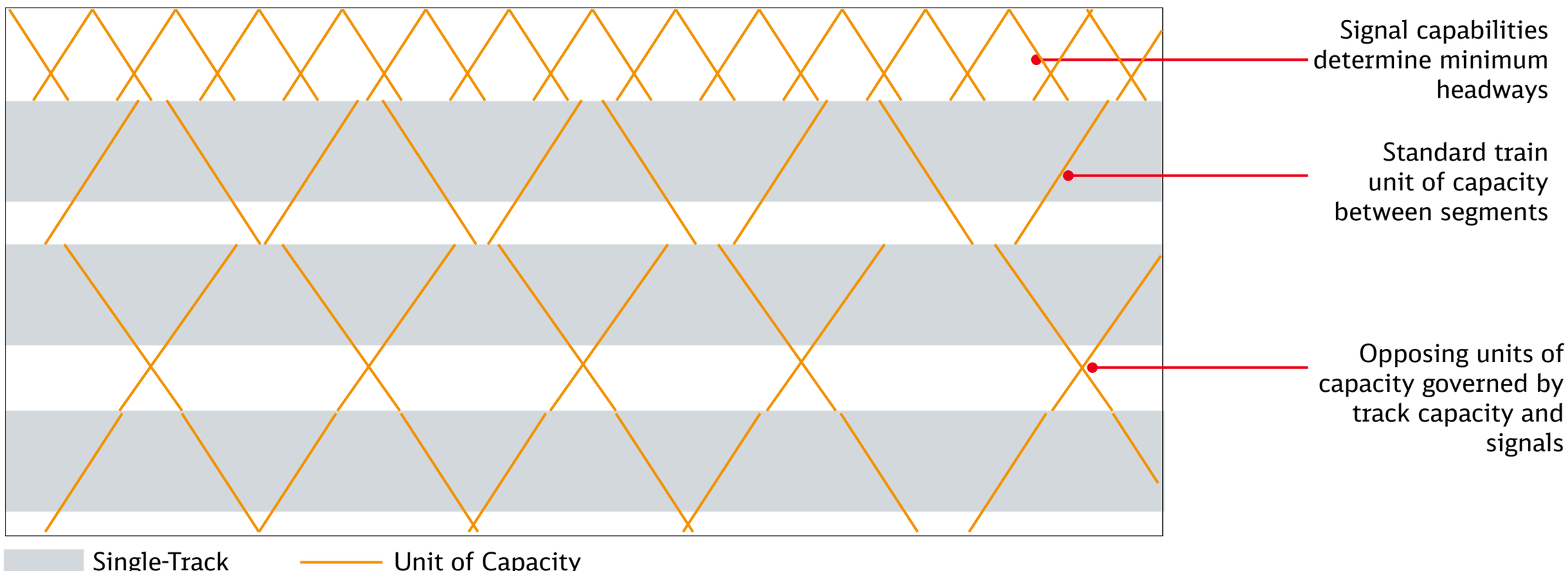

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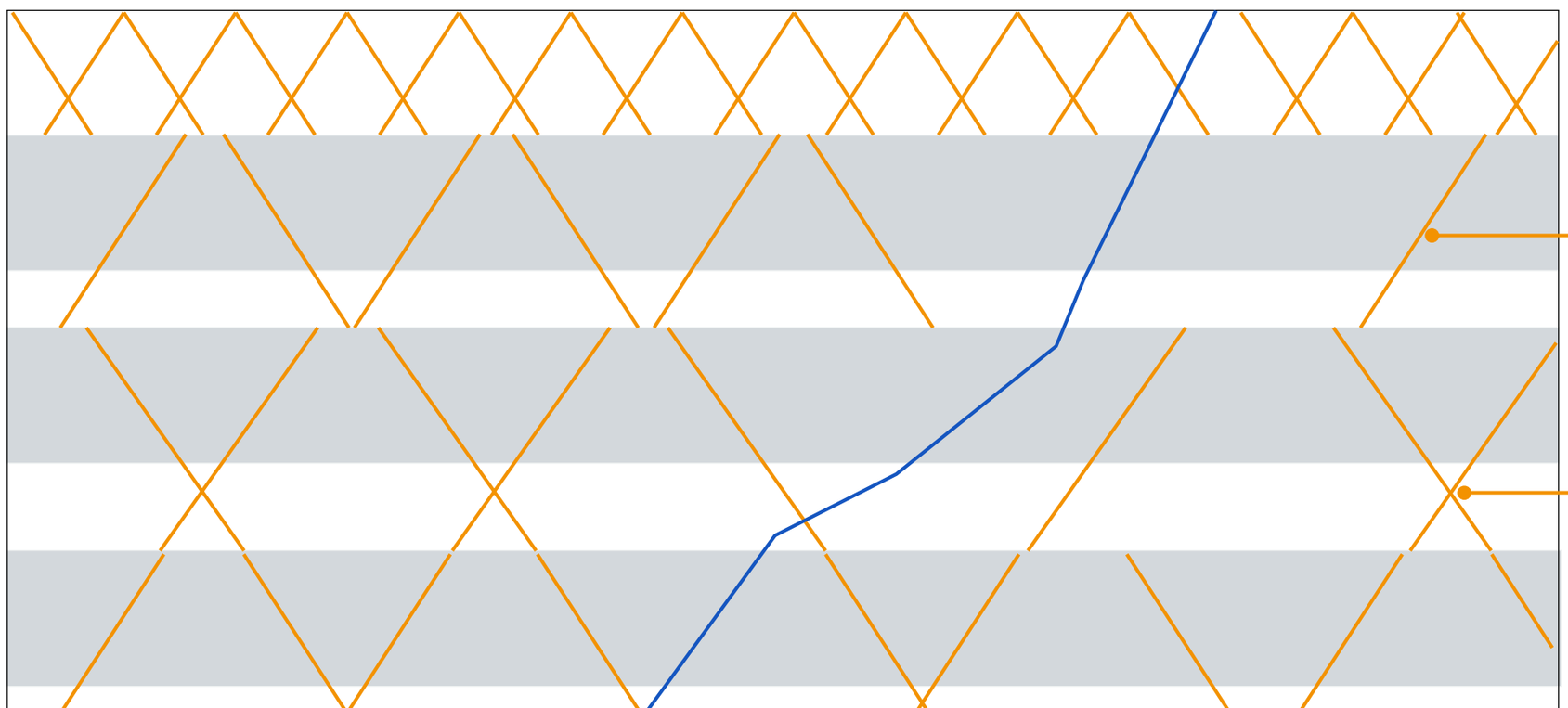


Each proposed Amtrak train would utilize 1 to 2 units of capacity in each section

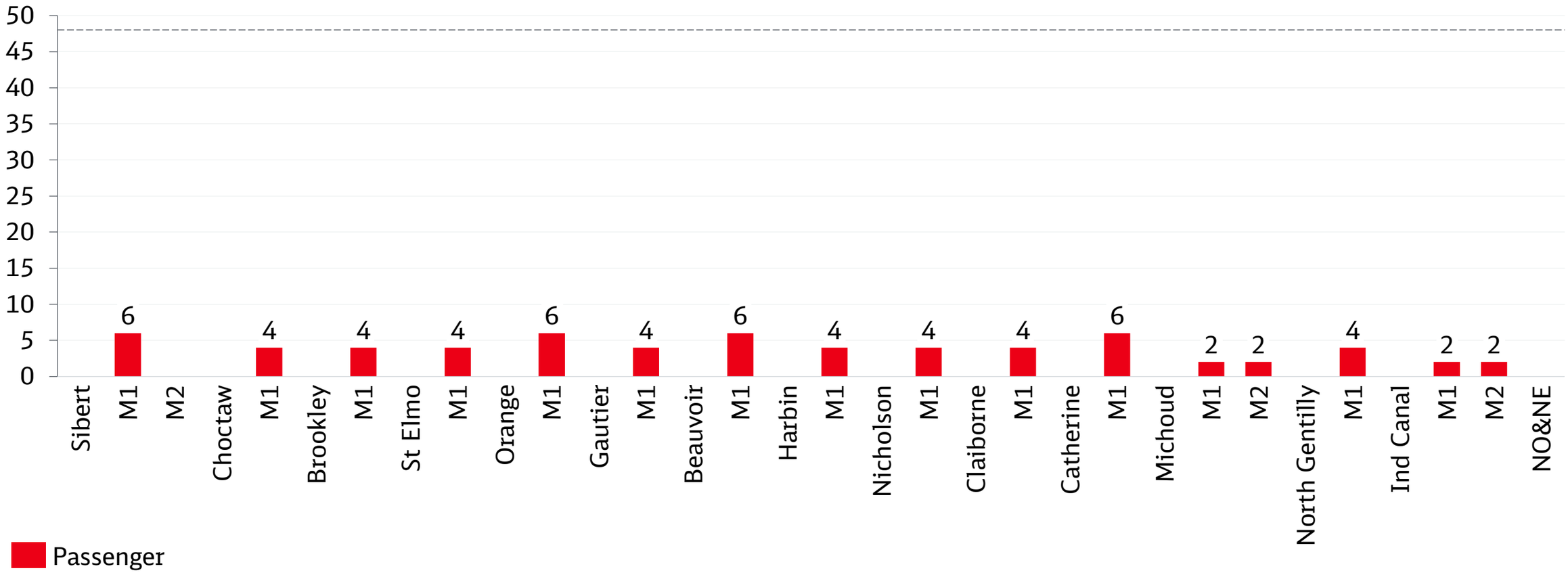
Remaining units of capacity are available for the freight services and track maintenance

Single-Track Unit of Capacity Amtrak Path

Each Amtrak train consumes one or two units of capacity per segment based on the schedules developed for the Gulf Coast service.

The proposed Amtrak service of two round trips (4 total trains) between New Orleans, LA and Mobile, AL will consume one or two units of capacity per train, per direction depending on the segment that the train operates across.

Consumed units of capacity by Amtrak



Train counts taken from the CSX OS Data (Sep – Nov 2019) indicate that train counts vary across the corridor.

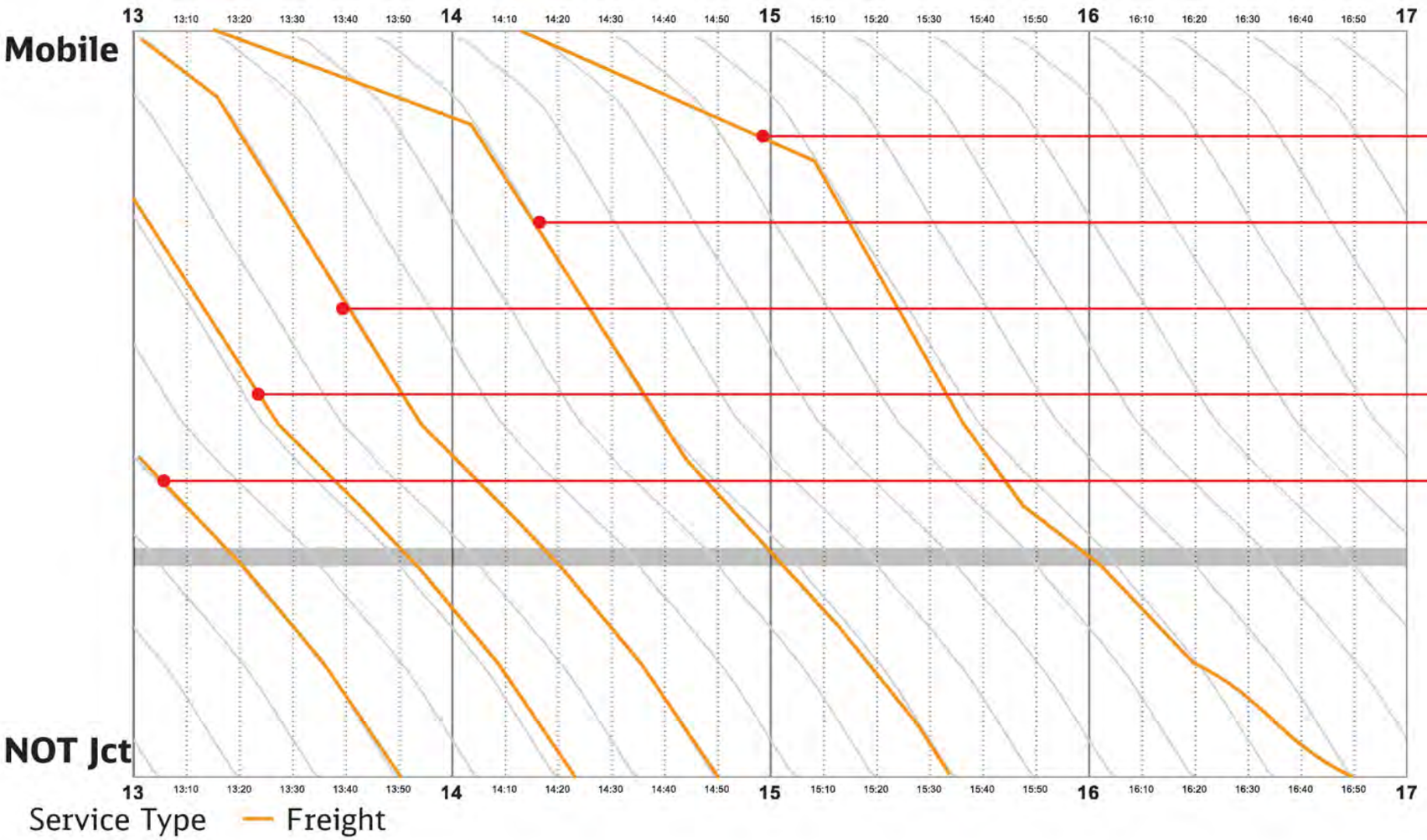
Freight trains counts may vary depending on the facility demand across the corridor. Segments closer to the terminals are used more heavily due to local and switching movements.

Railroad operations are highly variable. Using actual 2019 “OS” data, our methodology creates a metric-based measure gauging variability of operations.

The variability metric is a measure of additional capacity consumed by the operation of a freight train. In addition to the single unit of capacity consumed by the operation of a freight train, day to day factors associated with freight operations will cause a train to consume an additional 1.4 units of capacity (for a total of 2.4 units per freight train operated). These factors include additional weight, lower-than-planned horsepower-per-ton ratio, temporary track speed restrictions, track work windows, terminal congestion issues, other line congestion issues, delays holding off grade crossings, or drawbridges open for water traffic.

Capacity consumption throughout 2019 was extracted from the data. Consumption of capacity greater than 1 unit represents variability.

Illustrative



Extra units of capacity consumed

3

2

0

0

0

Extra units of capacity consumed	5
Number of trains	5
Avg. extra units of capacity per train	**1**

We added up extra capacity consumed by all trains for each day and determined the **average capacity consumed per day** by variabili

Trains entering and exiting terminals, what we call on ramp and off ramp movement consume at least an additional unit of capacity depending on a location.

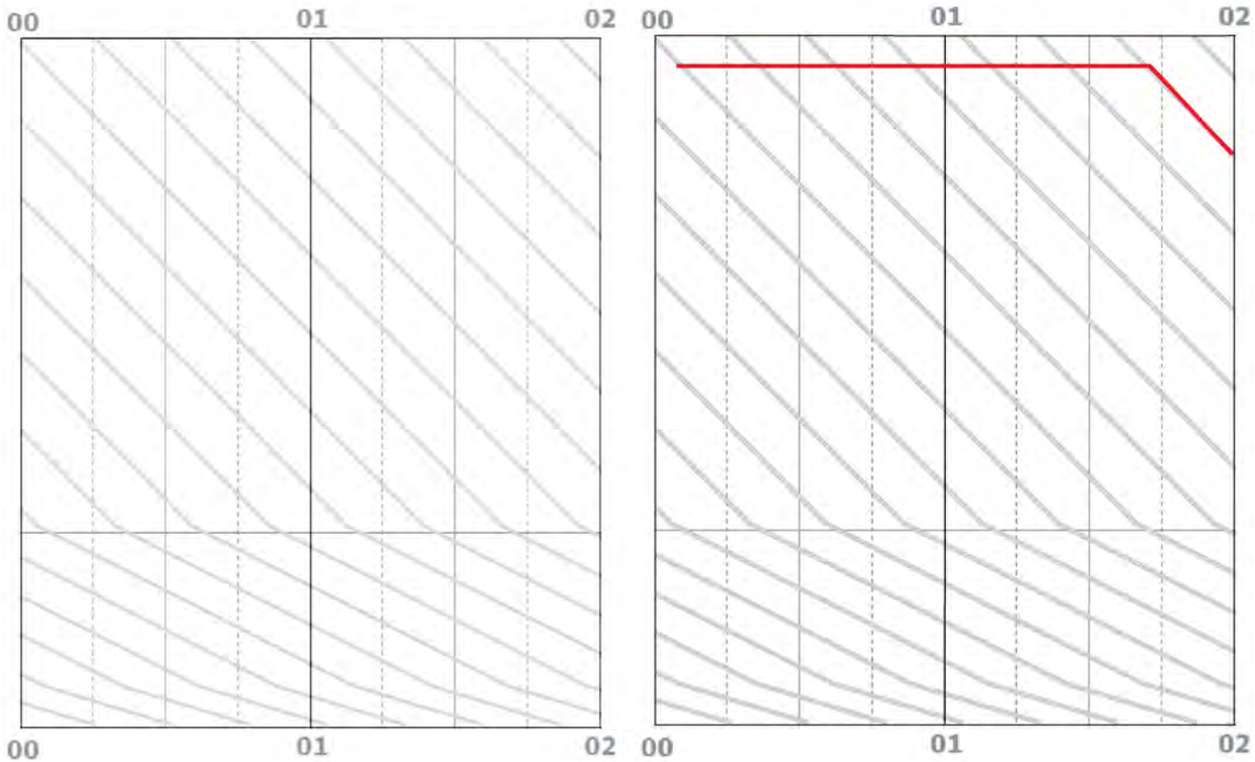
Example

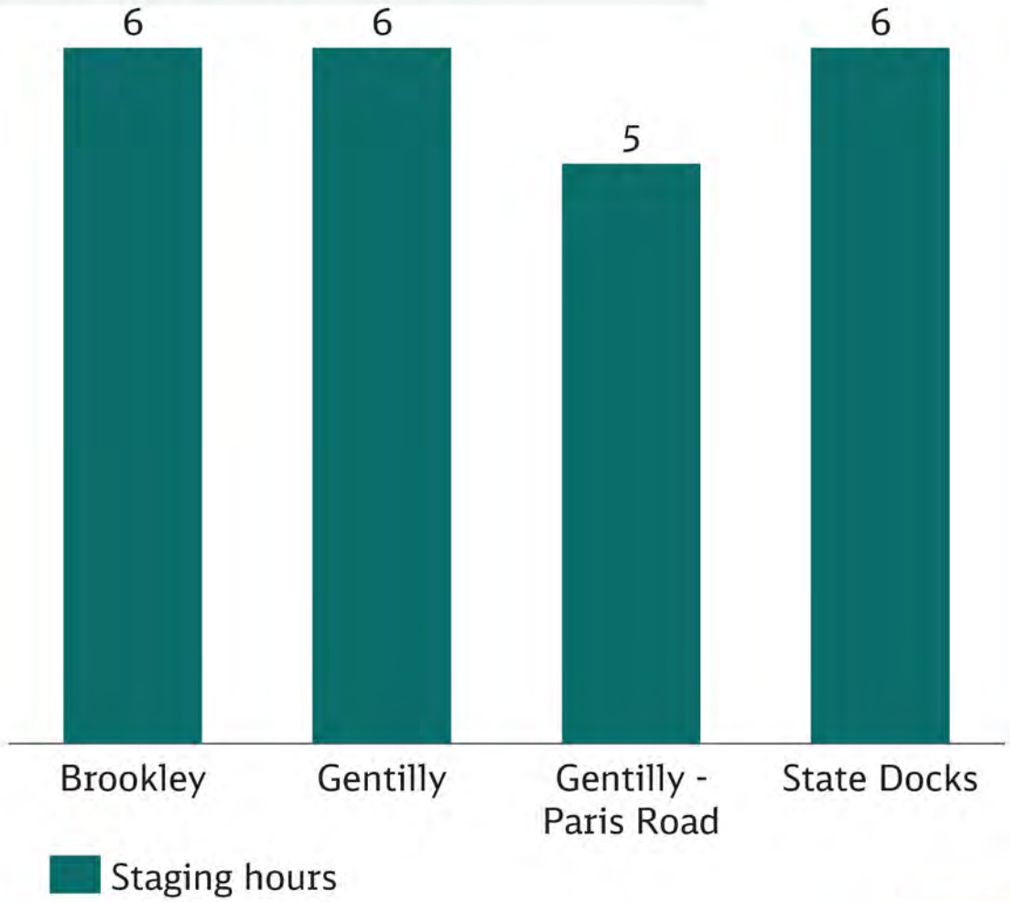
We mapped train movements from 2019 OS data on the corridor between Mobile and New Orleans and determined “average day” regular movements. Local movements between Mobile and New Orleans were found to be driving most of the on-ramp and off-ramp movements.

Redacted Due To CSX's And NS's Designation Of Underlying Data As Highly Confidential

Staging is when the main track or passing siding is used to park trains awaiting movement. Staging consumes about 10 units of capacity near Gentilly and Sibert.

Staging events and locations on the corridor were determined from 2019 OS data. We define staging as a train dwelling at a location for more than three hours. Any staging that falls within 3 hours is a part of a train run and is covered in variability.





Freight train pathing slot

Freight train pathing slot with staging

Our methodology applies a flat standard for Maintenance-of-Way (MOW) impacts.

Our methodology applies a standard level for the capacity consumed by track outages using data from the 2021 Gulf Coast RTC Report. The methodology provides for increasing or decreasing the amount of capacity consumed based on feedback from an operator. Track outage data used from the 2021 Gulf Coast RTC Report showed the railroad broken up in to three sections and sections of track would be unavailable at random times, on random days, for random durations.

We simulated 30 days of track outages using the 2021 RTC Study data assumptions

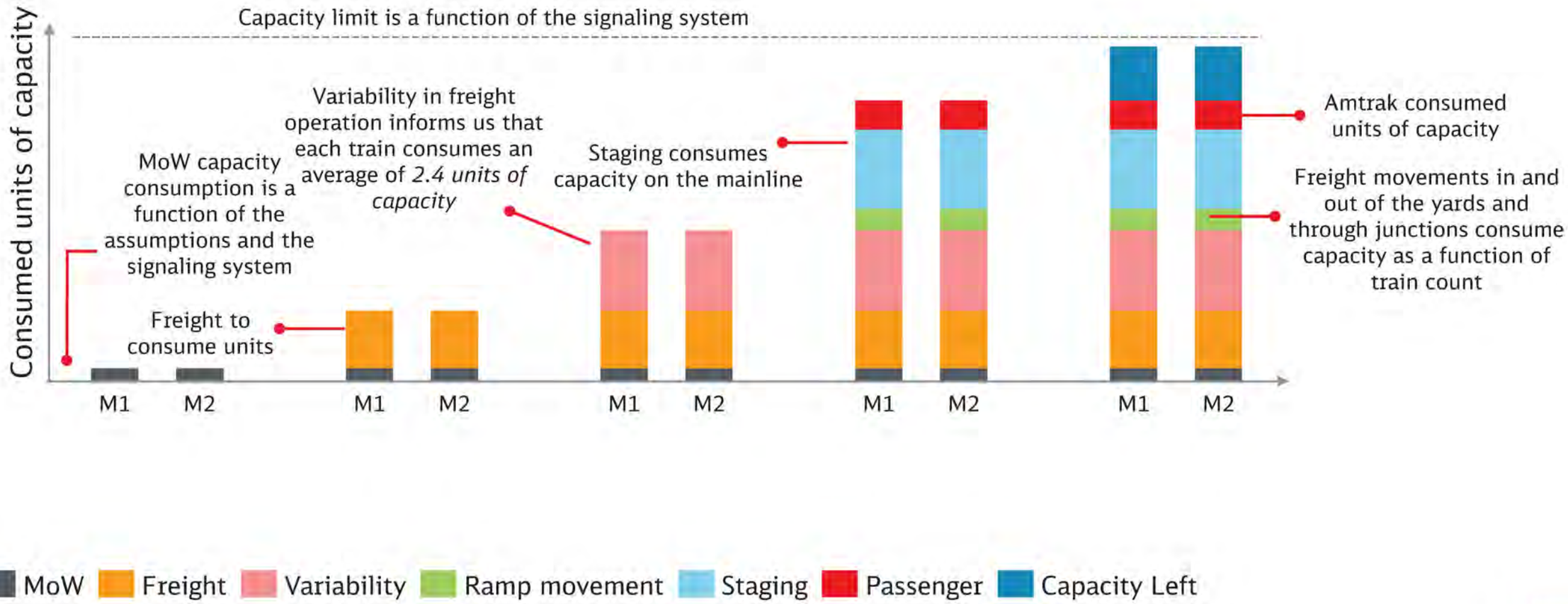
We ran the 30-day simulation 30 times.

We averaged the average track time for all 30 simulations

Our standard is 2 hours per track, per day

Redacted Due To CSX's And NS's Designation Of Underlying Data As Highly Confidential

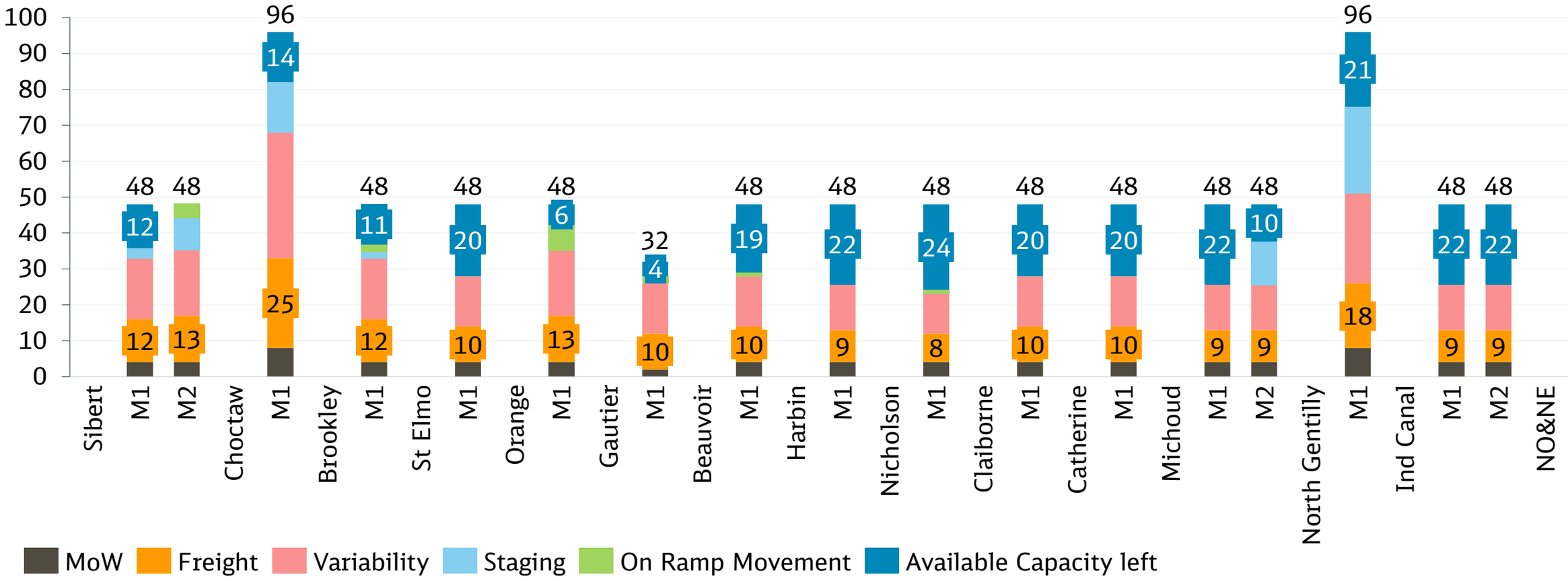
Marketplace model breaks down capacity supply into components that could be measured through historical data analysis.



Our methodology concludes that capacity demand on the NO&M Subdivision does not exceed the supply of capacity.

The CSX NO&M Subdivision has sufficient capacity across the entire route. There are no sections of the corridor that fully utilize the available capacity.

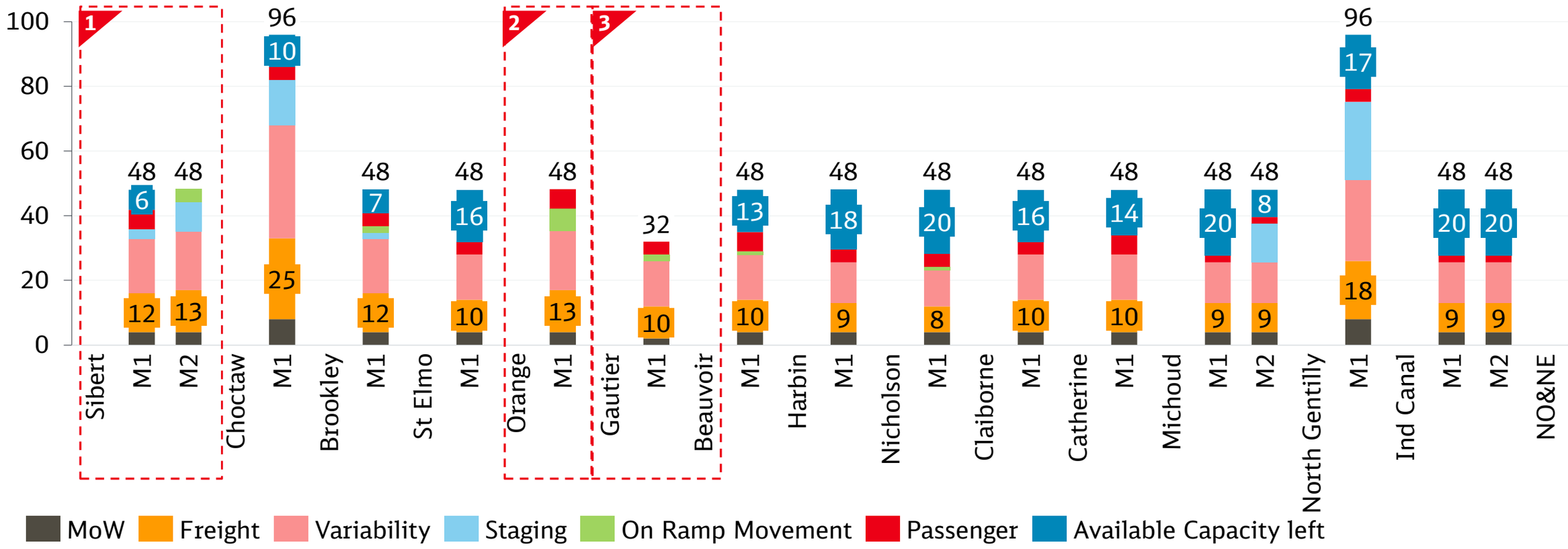
Consumed units of capacity without Amtrak



The capacity demand of Amtrak's proposed Gulf Coast Service equals, but never exceeds, the available supply across the Gulf Coast Corridor.

After applying the Amtrak Gulf Coast Service capacity demand, no section of the corridor exceeds the available capacity. Our analysis concludes that additional operational efficiencies or infrastructure improvements should be examined in areas where maximum capacity is utilized. This includes the segment between Gautier and Beauvoir, the main track near Bayou Cassotte yard, and where to locate layover and station activity at Mobile.

Consumed units of capacity with Amtrak

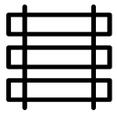


CSX's NO&M subdivision has sufficient capacity supply for freight and passenger operations. No improvements are required to initiate service. Opportunities to expand capacity supply should be explored in these sections.

1 Mobile Station

Initial proposals to serve Mobile station require non-revenue dead-head moves and main track station dwells at Mobile Station which consume capacity.

A layover facility near the station limiting mainline interference between station dwell and train servicing would reduce capacity consumption

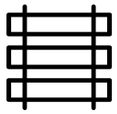


1,000 feet of siding track

Saved units[1]:
4 units

2 Bayou Cassotte power turnouts

Three daily locals serve Bayou Cassotte Yard which needs to enter and leave the yard multiple times.
The addition of power turnouts allows each turnout to be controlled by the dispatcher, removing the need for the freight train crew to manually operate the turnout and occupy the mainline.



Two #15 powered turnouts

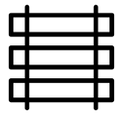
Saved units:
7 units

3 Gautier to Beauvoir

The proposed Gulf Coast Service plan will consume the remaining additional capacity between Gautier and Beauvoir.
Gautier to Beauvoir segment has reduced capacity due to the longer length of single-track. Additional capacity is required to provide buffer for more robust service.

Increase the speeds to the operating speed of 60 MPH

Available[2] units:
+8 units



Extend Ocean Springs siding by 6000 ft to shorten Gautier-Beauvoir segment

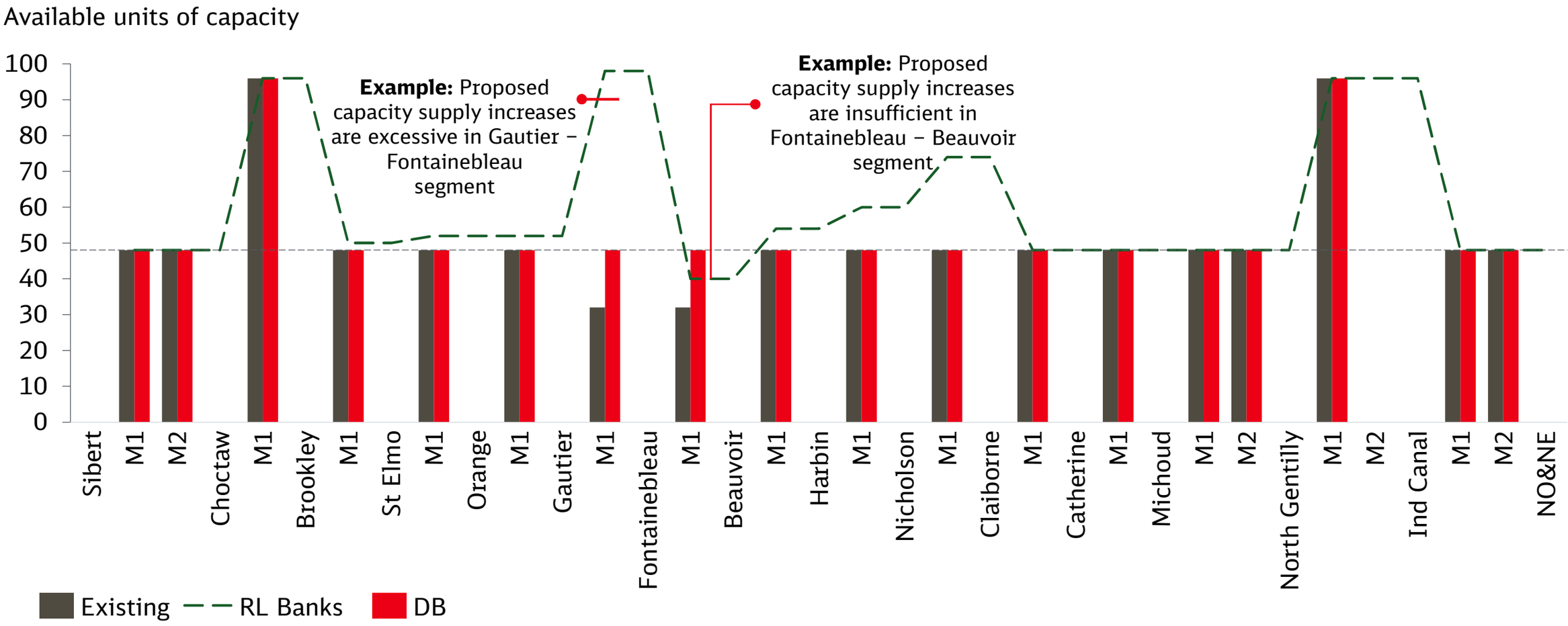
Available units:
+16 units

(1) Saved units do not imply the increase of the overall capacity supply but suggest solutions for avoiding additional consumption

(2) Available units imply the increase of the overall capacity supply

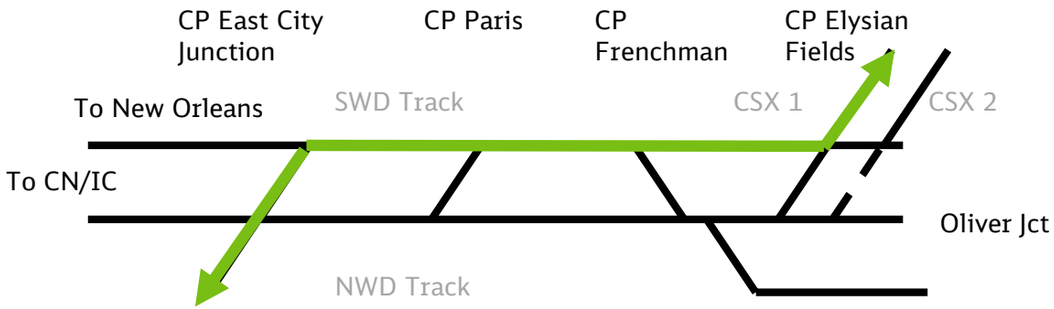
2021 Gulf Coast RTC Study recommendations have a supply and demand mismatch in some segments

The 2021 Gulf Coast RTC Study proposal has been translated to the marketplace methodology to determine the capacity supply at each segment. We observed that the study proposed projects that either: (1) provide excessive capacity supply (2) minimal improvements in capacity or (3) insufficient supply to accommodate the service demand.



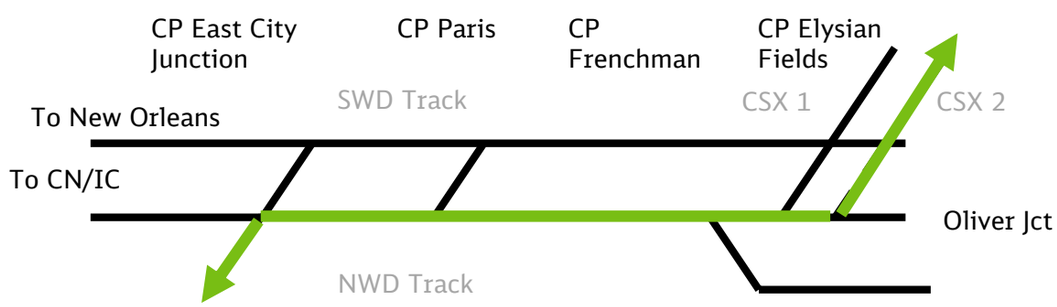
None of the infrastructure proposed by the 2021 Gulf Coast RTC Study are necessary to initiate service on the Back Belt. There are four routing options for Amtrak on the Back Belt. Only one project proposed by NSR create efficiencies from NSR's current routing.

1 Routing Option 1

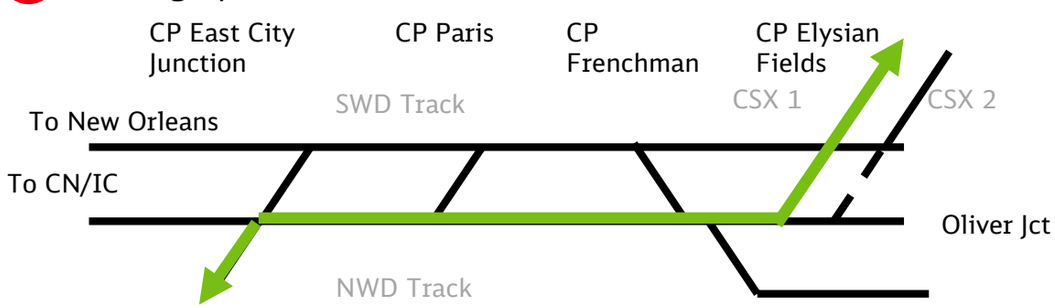


Current Amtrak proposal has no scheduled meets at or near the NS Back Belt. There are multiple routing options available for the handling of trains

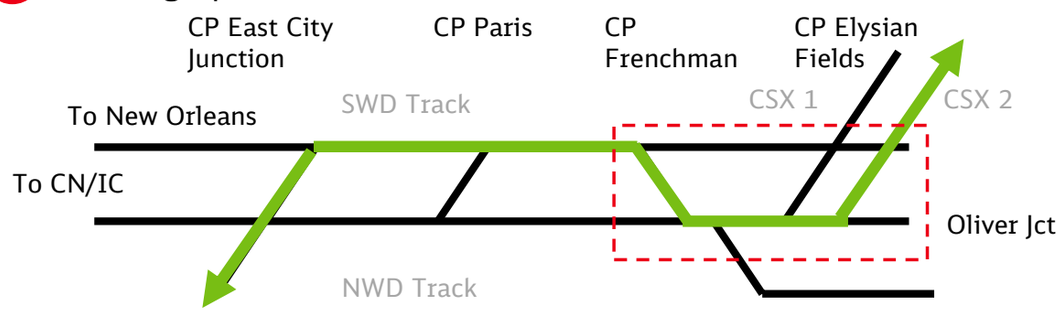
2 Routing Option 2



3 Routing Option 3



4 Routing Option 4

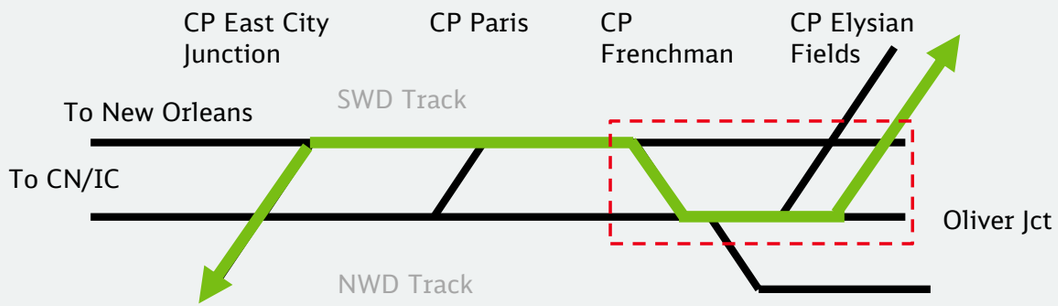


Routing option 4. This option requires a train to block the freight lead track into Oliver yard to go from the NS Southward track to CSX track 2

Only the proposed installation of a new crossover and turnout at CP Elysian Fields that allows direct access from the NS Southward track to CSX Track 2 improves any of the routing options.

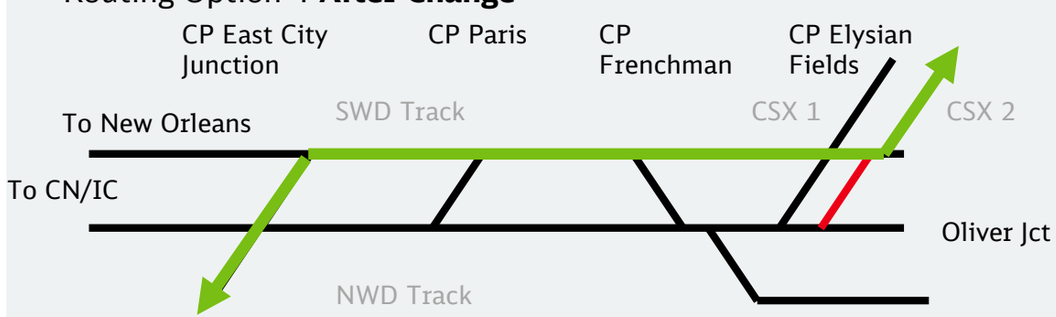
4

Routing Option 4



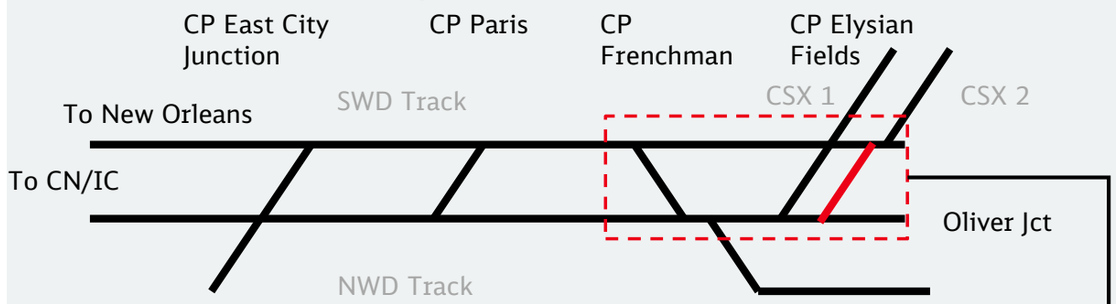
Routing option 4. This option requires a train to block the freight lead track into Oliver yard to go from the NS Southward track to CSX track 2

Routing Option 4 **After Change**



After the change trains can now be routed from the NSR Southward track to CSX track 2 without blocking the freight lead.

2021 Gulf Coast RTC Study



The 2021 Gulf Coast Study proposed adding a new crossover and turnout at CP Elysian Fields that connects NSR's Southward track to CSX track 2 without impacting the NS Northward track or the Oliver Yard freight lead.

APPENDIX B

DB Project Team Experience

Clayton S. Johanson

Clayton S. Johanson joined DB as Principal Consultant in April 2019 tasked with overseeing the Service and Operations Planning practice. Mr. Johanson has led a range of efforts from long-term conceptual planning and analysis to near term operations support. Long range projects include development of rail agency strategic visions and goals, development of high-level long term conceptual service plans, and the creation of new, or validation of existing long-term infrastructure plans. Numerous efforts in which service plans were developed and compared to existing infrastructure plans resulted in agencies being able to scale back on their infrastructure plans and therefore reduce long term costs. Near-term operations efforts that Mr. Johanson lead include passenger timetable development with corresponding crew and equipment rotations, freight slot analysis, and real time train performance analysis. The results of performance analyses have identified needed service changes, identified operational bottle necks, changes to operating practices, and/or the pursuit of capital projects to better the operation. Clients for both near- and long- term efforts include private freight rail companies, public passenger rail agencies, joint power authorities, and government agencies at various municipal levels.

Mr. Johanson spent his entire professional career in the transportation sector. Upon earning a BA in Transportation and Logistics from Iowa State University in December 2002 he joined Hub City Terminals, Inc. ("Hub Group") in Downers Grove, Illinois in their intermodal operations department. Hub Group is an intermodal marketing company providing rail intermodal transportation services to customers. In this role Mr. Johanson had responsibility for operational execution and volume growth for multiple large national accounts. This spanned the entire intermodal chain from origin pickup to destination delivery.

Mr. Johanson joined BNSF Railway Company ("BNSF") in 2004 as an Assistant Trainmaster("ATM") at Corwith Yard in Chicago, Illinois. As an ATM, and later a Trainmaster ("TM"), he was responsible for the execution of service plans at what was then BNSF's busiest intermodal facility in the Chicagoland area. The role of ATM and TM included immediate to 72-hour operations planning, plus the responsibilities traditionally played by a Yardmaster directing train crews and organizing and assigning of work tasks to ensure the arrival and departure of trains and processing of rail cars in a facility.

Mr. Johanson was subsequently a Manager of Transportation Coordination("MTC") in Chicago Command Center ("CCC") for BNSF. The CCC was responsible for BNSF's day-to-day execution interface with the other freight railroads in the busy and complex Chicago Terminal. In this role he worked with counterparts in real time at Class 1 and terminal railroads to ensure the smooth interchange of trains between BNSF and those carriers. BNSF's Chicago operations have the additional complexity of BNSF's operation of commuter passenger train service for Chicago's commuter rail agency, Metra. In this role Mr. Johanson had first-hand experience in balance the demands of delivering reliable passenger and freight rail service.

Mr. Johanson was named Terminal Manager of BNSF's Chicago Suburban Service in August of 2009. In this role Mr. Johanson had responsibility for the delivery of BNSF's contracted commuter service for Metra. In this role he was responsible for operations, service planning, employee training, and labor relations connected with the service. It was in this role that he developed a deep insight into the operation and interaction of passenger and freight trains in a busy corridor. His experience from on-the-ground freight and passenger operations allowed BNSF to operate a successful passenger service and balance BNSF's freight franchise.

Michael Weaver

Michael Weaver is a Senior Consultant with DB. Mr. Weaver joined DB in September 2018. Mr. Weaver has been tasked with providing project management and support for client projects that focus on near- and long-term rail planning. Mr. Weaver has led and provided support in the development of long-term multimodal rail planning efforts that establish rail agency visions and help turn them into implemental plans. Michael has led numerous efforts with passenger railways to implement near-term viable service plans. These efforts included development of near-term schedules, corresponding crew and equipment plans, support with freight owner schedule negotiation, and implementation and execution of service plans.

Michael Weaver's railroad career began when he joined Amtrak as a passenger rail conductor in 2008. Michael's time as a conductor provided him a foundation in establishing himself as an expert in rail operation, safety, and customer service. After 2 years as a conductor Mr. Weaver was promoted to a locomotive engineer which advanced his understanding of rail operations. The variety of territory in which he ran trains helped provide an understanding of the impact that infrastructure plays in rail operations.

In June of 2013 Mr. Weaver accepted a position in Amtrak's scheduling department as a Senior Scheduling Specialist. In this role, Mr. Weaver applied his field level experience to tasks of the scheduling group which included changes to train schedules to address performance, known infrastructure constrains or improvements, and responding to requests from both internal and external stakeholders. A critical aspect of train scheduling at Amtrak was the nourishment of relationships between host railroads, whom own the majority of infrastructure on which Mr. Weaver was responsible for scheduling services, and state agencies that provided the funding for corridor rail services. Mr. Weaver was promoted to lead and manage the scheduling group in 2017. During his time managing the group Michael continued to foster

relationships between Amtrak and its host railroads. On several of Amtrak's routes, on-going infrastructure construction was completed. Mr. Weaver was tasked with analyzing the updated state of railroads and was able to identify opportunities to reduce scheduled trip time and/or increase passenger train frequencies.

Darkhan Mussanov

Darkhan Mussanov is a Consultant with DB supporting Service and Operations Planning practice group. Mr. Mussanov joined DB in February 2019. Mr. Mussanov worked on tasks that provided technical support and advice on near- and long-term rail planning. Darkhan has 3 years of industry experience and 3 years of experience on projects in railway operation analysis, service and conceptual planning, dynamic simulation, and freight/passenger service design. With experience in freight railroad network planning, he previously worked on projects that involved long-term capital planning with simulation focus, railroad asset distribution optimization and statistical analysis of data.

At DB, he worked with a Class 1 operator on a range of different transportation projects in Seattle, Dallas - Fort Worth, Los Angeles and San Diego to create long-term capital plans for infrastructure expansion. Mr. Mussanov worked on generating day-to-day tactical crew and equipment schedules to maintain robust daily operation for several railroads including NCTD, Metrolink, Metrolinx, VRE and Caltrain.

Prior to joining DB, he worked at Union Pacific as a Service Design Intern, at CSX as a Network Planning Intern and at Arup as a Railway Operations Specialist.

Clayton Johanson

Principal Consultant
DB Engineering & Consulting USA, Inc.
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Clayton.Johanson@deutschebahn.com

Education, Licenses & Certifications

BS
Transportation and Logistics
Ivy College of Business
Iowa State University, Ames, IA

Experience

15 years industry experience

Background

Clayton Johanson is a railroad operations expert with experience managing dense commuter and freight operations in busy urban corridors. He has worked with Class I railroads, commuter railroads, public transit agencies, and consulting firms.

Clayton joins DB after 15 years with BNSF Railway, the largest railroad company in the United States. For the past 10 years Clayton served as the Terminal Manager for Suburban Operations for BNSF's Chicago commuter operations. There he oversaw the safe daily operation of 106 commuter trains handling 60,000 daily riders between Chicago and Aurora, IL. He also led teams that instituted customer service training programs, implemented *Positive Train Control*, and developed train operations schedules. Clayton was responsible for the creation of an operating plan on 36 hours notice that successfully handled 100,000 riders for the 2016 Chicago Cubs World Series parade.

Clayton has experience working collaboratively with other railroads to successfully move trains through the complex Chicago railroad terminal and overseeing operations at a busy freight intermodal terminal. He has also been called upon to present on railroad operations to new BNSF leaders and external stakeholders.

Relevant Skills

- Experienced railroad operator with ability to find solutions to complex operation problems
- Proven consensus builder that meets the needs of operators, agencies, and customers.
- Experience with freight and passenger rail operations in United States and Canada

Experience

Transforming Rail in Virginia

Client	BNSF Railway and North Texas Council of Governments
Contact	Jim Tylick james.tylick@bnsf.com
Year	June 2021-Ongoing
Position	Project Diretor

Clayton oversees a team developing service plans to increase freight train operations on the Trinity Railway Express corridor between Dallas, TX and Fort Worth, TX. The corridor is publicly owned and features a robust passenger rail service. This study is identifying operating plans to improve freight train counts on the existing infrastructure while preserving passenger service counts and reliability

Client Virginia Passenger Rail Authority
Contact Jeremy Latimer jeremy.latimer@vpra.virginia.gov
Year January 2020-Ongoing
Position Project Manager

Clayton leads a team working on service planning, performance monitoring, and onboard services for Virginia's investment in passenger rail service throughout the state. In 2020 VPRA announced their purchase of half of CSX Transportation's RF&P Corridor from Washington D.C. to Richmond, VA. Clayton and his team developed passenger service plans for the corridor with stakeholder Amtrak, Virginia Railway Express, and CSX. The first phase of these service plans were initiated in 2021. Clayton's team provides technical support to VPRA for monitoring of train performance on the corridor which includes investigating root causes of delays, identifying trends in performance and stepping stakeholders through operational improvements to increase reliability.

Metra Recovery Service Planning

Client Metra
Contact Daniel Miodonski, Manager of Service Design, Metra (312.322.2787), dmiodonski@metrarr.com
Year November 2020-Ongoing
Position Project Manager

Clayton leads a team that is developing train schedules, crew deployment plan, and equipment deployment plan for Metra services operating from Chicago Union Station in the period following the COVID-19 pandemic. The schedules will have the ability to scale to ridership growth without the need to realign the base foundational plan. This project includes working with agency stakeholders to develop the potential options for analysis, including service levels, operational parameters, operating concepts, and infrastructure configuration, developing an operations and maintenance cost model, and development of recovery service concepts with corresponding equipment and rolling stock rotation plans.

Sounder South Corridor Capacity Planning

Client BNSF Railway
Contact DJ Mitchell, AVP Passenger Operations, BNSF Railway (817-352-1230) dj.mitchell@bnsf.com
Year July 2020-February 2021
Position Project Manager

BNSF Railway's Seattle Subdivision is BNSF's crucial freight corridor serving the Puget Sound region. The route also hosts passenger trains from Sound Transit (ST) and Washington State DOT (WSDOT). Projected increases in freight and passenger train counts will result in the corridor exceeding its designed capacity in the next 16 years when Sound Transit projects expanding *Sounder* service to DuPont, WA. Expansion of additional main tracks is complicated by development and environmental concerns in the rail corridor

Clayton led a project team from DB that took a two-pronged approach to addressing the need for capacity. One group worked with ST and WSDOT on developing a regularized, pulse service plan that eliminated variability in train schedules. This pulsed service plan will allow for improved connections with other transit services and create a predictable train schedule to base freight assumptions around. The second group analyzed freight train capacity consumption and variability to understand how much capacity would be needed to support BNSF's freight franchise.

Finally, both teams were brought together to blend their plans and develop process, technology, or infrastructure projects necessary to provide the right level of capacity, at the right time to support passenger and freight service.

BNSF San Bernardino Subdivision Capacity Planning

Client BNSF Railway
Contact DJ Mitchell, AVP Passenger Operations, BNSF Railway (817-352-1230) dj.mitchell@bnsf.com
Year July 2020-April 2021
Position Freight Operations Expert

BNSF Railway's San Bernardino Subdivision is BNSF's freight corridor serving the Los Angeles area. The route also hosts passenger trains from Metrolink and LOSSAN, and future high speed rail service. Projected increases in freight and passenger train counts will result in the corridor exceeding its designed capacity.

Clayton developed a marketplace concept using a standardized train size as currency to evaluate supply and demand for rail service in the corridor. This flexible concept allowed for planning of both freight and passenger services while accounting for variability in freight operations. The marketplace allows operators to evaluate the benefit (use of capacity) and cost (amount of capacity consumed) for various service and operational scenarios.

California Short Line Improvement Plan

Client Caltrans
Contact Andy Cook, Chief Planning & Operations, Caltrans (916-716-7325) andrew.cook@dot.ca.gov
Year June 2020-June 2021
Position Project Manager

Short Line railroads serve as a first and last mile connection for many regions into the larger freight rail network. These railroads provide critical economic connections for many local businesses in diverse regions. Often these lines critical lines have low margins that make it hard to reinvest in their infrastructure. The State of California sought to develop a program to provide grants or tax credits to the industry.

Clayton developed a methodology for a project that would reach out to every short line railroad in the state to understand their infrastructure needs and potential economic return for each project. Building on his experience with freight rail operations he was able to establish credibility with operators to share operations and infrastructure data with the project team. The team also benchmarked with other state programs to learn best practices for California to adopt in a future program.

The final product provides an overview of the role short line railroads play in rail transportation, the needs of the industry, and a path forward for California to create their own support program for the industry.

Capitol Corridor Joint Powers Authority Travel Time Savings Project

Client CCJPA
Contact James Allison, Manager of Planning, CCJPA (510-464-6994) JimA@capitolcorridor.com
Year May 2020-April 2021
Position Passenger Operations Expert

DB E&C provided critical support to the development of the spring 2019 schedule which reflected the completion of the CalTrans funded, Travel Times Savings Project. This project raised speeds on the Union Pacific Coast and Martinez subs, the two lines that comprise the Capitol Corridor route. Clayton provided modeling services using its Viriato scheduling tool, Amtrak GPS analysis, and field time studies to validate the

new run times. DB E&C produced the concept for the faster schedule and mediated discussions between CCJPA, Amtrak, and Union Pacific Railroad for implementation of the new schedule. Clayton is providing monitoring of on time performance, review of crew and equipment turns, and possible schedule adjustments for Capitol Corridor service to be implemented in 2020. Clayton is also is working with CCJPA on the 2026 Mid-term schedule concept. The work has identified opportunities for improving all station on-time performance reliability and identifying areas for targeted initiatives to improve service without the need for lengthening of train schedules.

Virginia Department of Rail and Public Transit RF&P Corridor Schedule

Client Virginia Department of Rail and Public Transit (DRPT)
Contact Jeremy Latimer, DRPT (804-225-4016) Jeremy.Latimer@drpt.virginia.gov
Year February 2020-January 2021
Position Principal Consultant

The Virginia Department of Rail and Public Transit arranged to purchase a portion of the CSX-owned RF&P corridor between Washington, D.C. and Richmond, VA. Working for prime consultant Kimley-Horn, DB supported K-H and DRPT with creating an operational train schedule that could be implement over three phases of the project. Clayton led analysis of current train performance using data visualization tools *Tableau* and *Treno* to evaluate current corridor performance and to develop parameters for schedule creation. Clayton also developed crew and equipment rotations for Virginia Railway Express (VRE) trains that will be operating on the corridor. Finally, Clayton provided strategic guidance on the operations-related agreement issues and the establishment of performance monitoring committees based on his years of managing a large commuter rail system.

San Joaquin Performance Monitoring

Client San Joaquin Joint Powers Authority (SJJPA)
Contact Paul Herman, Associate Planner, SJJPA (209-944-6272) paul@acerail.com
Year 2019 - ongoing
Position Principal Consultant

The *San Joaquin* is an Amtrak-operated, SJJPA-funded regional passenger service operating between Bakersfield, California and the co-terminals of Oakland, California and Sacramento, California. Following the implementation of a repetitive "pulse" train schedule, SJJPA engaged DB E&C to conduct performance monitoring services of the service for two years. The service operates on host freight railroad BNSF Railway. Clayton used data analytic tools such as *Tableau* and *TRENOanalysis* to examine train performance data and conductor delay reports to identify trends and true root causes of delay. Clayton then worked with a multi-stakeholder team comprised of SJJPA, Amtrak, and BNSF staff to develop targeted initiatives to reduce or eliminate delays that have the great impact on train performance.

San Joaquin Capacity Analysis

Client San Joaquin Joint Powers Authority (SJJPA)
Contact Paul Herman, Associate Planner, SJJPA (209-944-6272) paul@acerail.com
Year 2019 - ongoing
Position Principal Consultant

The *San Joaquin* is an Amtrak-operated, SJJPA-funded regional passenger service operating between Bakersfield, California and the co-terminals of Oakland, California and Sacramento, California. SJJPA engaged DB to evaluate the effectiveness of multiple capital expansion projects within the corridor. Clayton developed a methodology using delay minute reduction, actual ridership and FRA value of time calculations to evaluate and prioritize the effectiveness of each project. Based on Clayton's analysis, SJJPA advanced projects into construction sooner to take advantaged of the identified delay reductions.

BNSF Chicago Subdivision Tie Renewal

Client BNSF
Contact DJ Mitchell, AVP Passenger Operations, BNSF Railway (817-352-1230) dj.mitchell@bnsf.com
Year 2018
Position Terminal Manager – Suburban Operations/BNSF Railway

In 2018 BNSF Railway had to replace 16,000 track ties on 18 miles of the middle of three tracks on their busy Chicago Subdivision from Hinsdale, IL to Aurora, IL.

In previous years this work would have been conducted over three weeks with significant impacts to commuters, freight traffic, and communities. The project would also take twice the planned time budgeted. For this project Clayton worked on a multi-disciplinary team with passenger operations, freight operations, train dispatchers, and engineering. A plan was developed to bring in additional resources and consolidate work over three evenings. Clayton gathered commitment from Metra, BNSF freight operations to reduce train traffic in support of the project. In addition, he developed operating schedules that protected the remaining commuter trains, Amtrak service, and high priority freight traffic. The project was completed on time and budget with minimal impact to commuters, Amtrak and freight customers.

Clayton's efforts and the project was recognized with a 2018 BNSF *Achievement Award* and 2018 *Employees of the Year* recognition.

BNSF Metra Suburban Operations Corporate Audit

Client BNSF Railway
Contact DJ Mitchell, AVP Passenger Operations, BNSF Railway (817.352.1230), djmitchell@bnsf.com
Year 2017
Position Terminal Manager – Suburban Operations/BNSF Railway
Worked with BNSF corporate audit department on fiscal and operations audit of BNSF-operated services for public commuter agency. Verified fiscal, operations, and safety practices to minimize risk to BNSF and ensure alignment to contract with public agency

BNSF Metra Line Schedule

Client Metra
Contact Daniel Miodonski, Manager of Service Design, Metra (312.322.2787), dmiodonski@metrarr.com
Year 2017-2018
Position Terminal Manager – Suburban Operations/BNSF Railway
BNSF Railway and Metra required a significant train schedule change to allow for the implementation of the federally-mandated safety overlay Positive Train Control (PTC), address overcrowding, and improve performance on the BNSF/Metra service. The existing schedule did not allow engineers to initialize the PTC system and meet the operating schedule.

Clayton led a team that analyzed the existing schedule and established criteria for minimum times at terminal stations for engineers to safely change operating ends and initialize the PTC system. In addition goals were set to reduce the amount of overtakes, which consume track capacity, and reallocate underutilized train capacity to accommodate riders on overutilized trains. This also had to protect slots for high priority freight traffic operating during the rush hour periods. Using ridership data, train performance data, and Viriato

planning software, Clayton and team were able to develop a schedule that met all of these needs. The implementation of this schedule led the BNSF line to be the first line on the Metra system to operate PTC on all trains, six months ahead of any other line.

Chicago Union Station Master Plan Phase 1A

Client Amtrak and Metra
Contact David Kralik, Department Head, Long Range Planning, Metra dkralik@metrarr.com
Year 2016-2017
Position Terminal Manager – Suburban Operations/BNSF Railway

Chicago Union Station is the busiest railway station in Chicago and hosts over 200,000 riders and six Metra lines and is the Midwest hub for Amtrak.
The Chicago Union Station Master Plan is an effort by Metra, Amtrak, the Illinois Department of Transportation and the City of Chicago to plan for future increases in passenger volume through an space-constrained resource. Clayton provided operational insight and infrastructure improvements for Rail Traffic Controller modeling of future train volumes. Clayton was instrumental in advocating for the inclusion of supplemental platform access via city streets direct to south concourse train platforms. The inclusion of this access will allow for improve distribution of ridership on BNSF and Southwest Service trains, eliminating frequent customer feedback on crowding on front cars of trains.

Behavior Based Safety Rollout

Client BNSF Railway
Contact Will Wazny, Superintendent of Safety and Operating Practices dkralik@metrarr.com
Year 2016-2017
Position Terminal Manager – Suburban Operations/BNSF Railway

Part of team that implemented behavior-based safety culture changes within a railroad operating department. Assessed current safety culture and benchmarked against other large industrial customers with safety-sensitive environments.

Customer Service Training Program

Client BNSF
Contact Brian Soyk, Manager of Safety and Training, BNSF Railway (630-692-6297), brian.soyk@bnsf.com
Year 2013-2015
Position Terminal Manager – Suburban Operations/BNSF Railway

To respond to changing customer expectations and social media's ability to enhance visibility of employee-customer interactions, BNSF Railway needed to a new customer service training methodology for their employees.

Clayton worked with the Canadian Urban Transit Association to implement their *Transit Ambassador* program with BNSF's commuter operations employees. Working with union labor leaders, Clayton received buy-in to have select employees facilitate the program in a peer-to-peer model. This method helped establish credibility of the program with front line employees. To further support the program, Clayton revised BNSF's policies and procedures for employees in commuter service to align with the training. *Transit Ambassador* successful adoption has created a sustaining annual training program and changed the customer service culture in BNSF's Chicago commuter service.

Manager of Transportation Coordination/BNSF Railway Company

Contact Matt Igoe, VP Operations, BNSF Railway, matthew.igoe@bnsf.com
Year/Cost 2007-2009
Position Manager of Transportation Coordination

Clayton coordinated movement of interchange trains in the Chicago Terminal. He built close working relationships with operating counterparts at other railroads. Clayton led a team working with representatives of

eastern coal utilities to understand the requirements of their facilities to improve overall velocity in coal train movements. He also worked as part of a committee to identify opportunities for improvement in use of vans for crew transportation and implement solutions to reduce overall van expense. In this role, Clayton built a strong knowledge of eastern rail network.

Terminal Trainmaster/BNSF Railway Company

Contact Rick Mohorn, Superintendent, BNSF Railway, richard.mohorn@bnsf.com
Year/Cost 2004-2007
Position Trainmaster

Clayton developed and executed daily operating plans at a large intermodal facility. There he worked with teams to ensure adequate supply of cars and unloading of cars to meet customer goals and coordinated with other railroads for the timely movement of connecting deliveries. Clayton successfully oversaw the simultaneous movement of multiple trains in train yard setting. He also conducted attendance and discipline investigations. Clayton promoted a culture of safe production by conducting operations testing, job safety briefings, and one-on-one interactions with scheduled employees.

Intermodal Coordinator/The Hub Group, Inc.

Contact Scott Dwyer, Intermodal Manager, The Hub Group, Inc. (630-271-3600)
Year/Cost 2003-2004
Position Intermodal Coordinator

Clayton identified and managed intermodal transportation needs for several national accounts. He was assigned to streamline and improve operational processes on a top 10 national account. Clayton coordinated with drayage and railroad companies to execute pick up, delivery, and line haul service needs. Clayton had to multi-task and prioritize in fast-paced transportation environment. Organized and analyzed transit, service, and revenue reports.

Michael Weaver

Senior Consultant

DB Engineering & Consulting USA, Inc.

Minnesota, MN

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michael.weaver@deutschebahn.com

Education, Licenses & Certifications

BS
Geography of Infrastructure and Urban Planning
University of Minnesota, Minneapoils, MN

Experience

11 years industry experience

Background

Michael Weaver has extensive experience in the railroading industry. Upon completing his undergrad degree studying Transportation and Urban Planning in 2008, he was hired by Amtrak where for the first 5 years he worked as a conductor and engineer on routes in the Midwest. In 2013, Michael was hired into the Amtrak's scheduling department where he participated and lead projects for Amtrak's operations and planning. During his tenure he successfully coordinated schedule planning internally as well as with federal, state and local rail authorities.

Mr. Weaver joined Deutsche Bahn in 2018 and brings to the team, field level operational knowledge of the railroad, experience enhancing current of passenger rail operations, and planning future service. Michael has experienced professional success with coordinated planning on rail projects within Amtrak, and projects in coordination with federal, state, and local transportation agencies.

Relevant Skills

- Efficient operations planning using a combination of service modeling and simulation tools, and route performance analysis.
- Successful coordination of rail planning projects for federal, state, and local agencies as well as passenger and freight railroads
- Detailed experience of passenger and freight rail operations in the United States and Canada.

Experience

On-Call Consulting Services for Capitol Corridor

Client Capitol Corridor Joint Powers Authority, Oakland, CA
Contact Michael Hendley, Manager of Operations Capitol Corridor Joint Powers Authority (510) 421-1063, mikeh@capitolcorridor.org
Year/Cost 12/2018 – now / $42,000
Position Project Manager

DB E&C worked assisted the Capitol Corridor Joint Powers Authority (CCJPA) in the creation of a new schedule that reflected the completion of speed increases across the corridor known as the Travel Time Savings Project. The goal was to validate how much trip time across the corridor was reduced, and create a concept that preserves the current levels of service reflecting faster end to end schedules

As project manager Michael guided this effort from start to finish. Using Viriato Software Michael calculated the new projected speeds. To validate those calculations, Michael conducted a field study with the Union Pacific Railroad to validate, in person, the new run to run times. Michael established a number of working group consisting of the CCJPA, Amtrak, and Union Pacific. With this group's inputs Michael was able to create a draft schedule concept that addressed the groups goals. Michael provided guidance negotiating the schedule with Union Pacific to conform to their business rules. The concept was accepted by the group and Michael worked with Amtrak and CCJPA to reconcile the draft concept to conform with business rules.

On-Call Consulting Services for San Joaquin

Client San Joaquin Joint Powers Authority, Stockton, CA
Contact Dan Leavitt, Manager of Regional Initiatives, San Joaquin Regional Rail Commission (SJJPA), (209) 944-6266, dan@acerail.com
Year/Cost 07/2018 – now / $300,000
Position Senior Planner

DB E&C, together with its subconsultants AECOM and Pennino Management Group, assists the San Joaquin Joint Powers Authority (SJJPA) in a variety of planning and project development activities to optimize the existing San Joaquins rail and Thruway Bus services and support an aggressive service expansion agenda. Areas of assistance include data analysis, ridership and revenue forecasting, rail and bus network planning, rail operations planning/ infrastructure identification, greenhouse gas emissions and vehicle miles traveled calculations, environmental studies, engineering, project costing, and station area planning.

Michael Weaver was tasked with creating a Spring 2019 schedule for the San Joaquin Corridor. Michael helped create an internal working group consisting of the SJJPA, Amtrak, and BNSF to provide inputs for a timetable fix for Spring 2019. Using these inputs, Michael constructed a draft concept pulse timetable that included the inputs provided form the working group. Throughout the progress of this work, Michael remained in constant communication with the working group to update progress and seek consensus on various iterations. The concept was accepted by the group and Michael worked with Amtrak and SJJPA to reconcile

the draft concept to conform with Amtrak/SJJPA business rules. The schedule went live on May 20, 2019. Michael continues to monitor and communicate the progress of the new schedule to the original working group through quantitative and Treno analysis.

Michael also provided analysis that aided into costing various route options for California High Speed Rail. Using Viriato software, Michael was able to provide the SJJPA direct service implications for different tiers of alignments on portions of California High Speed Rail.

SJJPA, San Joaquins 7th Roundtrip- Scheduler, Amtrak

Contact: SJJPA, Brian Schmidt, Director of Operations, (209) 944-6241, Brian@Acerail.com
Year: 2016- 2018

The California Department of Transportation (CalTrans) and the San Joaquin Joint Powers Authority (SJJPA) had the desire to add a 7th frequency on the San Joaquin corridor between Bakersfield and Oakland.

Michael joined the project after the initial planning process had been completed. Several concepts were discussed between SJJJPA and Caltrans and Michael created viable schedules reflecting those concepts. Michael was able to pull key goals from the multiple concepts and plan a viable schedule using TrainPlan scheduling software, and analysis of performance data along the corridor. Given that freight traffic along the route had increased since the initial inception, the schedules needed to be adjusted to recognize the changed conditions of the railroad. Michael brought the Union Pacific and Burlington Northern Santa Fe, the SJJPA, CalTrans, and Amtrak together to create a schedule that satisfied all stakeholders and successfully implemented the additional roundtrip. Following up with the success of the introduction of a 7th frequency, Michael lead a joint field ride study with the BNSF to verify that the adjusted runtime was accurate, and passenger meets were working as intended from the planning efforts. Michael responded to further needs for schedule refinements as the result of the ride study and further data analysis, and corridor on-time performance increased for all trains.

NCDOT, 4th Roundtrip Piedmont Service- Scheduler, Amtrak

Contact: NCDOT, Jason T Orthner, Director. (919)-707-4714, jorthner@ncdot.gov
Year: 2017-2018

North Carolina's Department of Transportation (NCDOT), having received federal and state grants to improve passenger rail service between Charlotte and Raleigh, invested money into their railroad to support additional frequencies amidst growing freight congestion.

Michael joined the project and was tasked with identifying a slot for the extra round trip with the option of modifying existing service to create a logical service pattern. Using performance data, leading a field study of the service, modeling TrainPlan scheduling software, and input from NCDOT, Norfolk Southern Railroad, and Amtrak's State Supported group, Michael was able to successfully plan, negotiate and implement a 4th frequency between Raleigh and Charlotte. The 4th roundtrip has created more options for travelers between cities on the corridor and has increased ridership.

LOSSAN JPA, Network Scheduling- Scheduler, Amtrak

Contact: LOSSAN, Jennifer Bergener, Managing Director, (714)-560-5462, jbergener@octa.net
Year: 2013-2018

LOSSAN is the managing agency of Pacific Surfliner. Amtrak's role as the operating agency involved supplying crews, mechanical, and scheduling support.

Michael was Amtrak's scheduling group's point of contact for LOSSAN. His role involved continuously studying train performance, conducting field ride studies, coordinating scheduling meetings with all stakeholders along the corridor, recommending, planning, and implementing schedule changes to help boost route performance and ridership, as well as participate in service planning for the additional frequencies. Michael's accomplishments with LOSSAN include service planning and implementation of the 12th round trip between San Diego and Los Angeles, planning and adding frequencies during high ridership holidays, as well as extra frequencies for Comic-Con and Del Mar Horse Racing Season. In early 2018, Michael had provided service planning for LOSSAN to explore adding extra frequencies along the corridor and making recommendations for capital investment needed to support additional capacity on the route's north end.

Amtrak, Train and Engine Service- Conductor and Certified Locomotive Engineer, Amtrak

Contact: Amtrak, Steve Robusto, Road Foreman, (202) 494-9049, RubustS@amtrak.com
Year: 2008-2013

Amtrak is the sole provider of long distance service and one of few providers of state corridor service in the United States. The safety of passengers is Amtrak's number one priority and being able to accomplish that requires conscientious crews that are able to adhere to federal safety regulations.

Michael came to Amtrak in 2008 as a Conductor. As a conductor he was responsible for learning and adhering to federal, Amtrak, and host railroad rules and regulations in order to keep passengers and crew safe. Michael was also responsible collecting all passenger fares, and providing an excellent experience for all Passengers on board. In 2011 Michael was promoted to Passenger Engineer. As an engineer he was responsible for adhering to all federal, Amtrak, and host railroad rules governing operations, safe and smooth train handling, and personal and passenger safety.

During Michael's time as a conductor and engineer Michael became an expert on railroad operations and the subtle differences across different territories. During Michael's tenure Michael became familiar with more than 2000 miles of railroad around the Midwest, particularly the Chicago areas complicated railroad network. Michael's field level experience was aid him along his career and contribute a unique perspective as his career advanced into scheduling and service planning.

Darkhan Mussanov
Project Engineer
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Education, Licenses & Certifications

MS
Civil Engineering,
University of Illinois at Urbana – Champaign, IL

BA
Civil Engineering,
University of Illinois at Urbana – Champaign, IL

Experience

3 years of research experience
3 years of industry experience

Background

Darkhan has 3 years of industry experience and 3 years of experience on projects in railway operation analysis, service and conceptual planning, dynamic simulation and freight/passenger service design. With experience in freight railroad network planning, he previously worked on projects that involved long-term capital planning with simulation focus, railroad asset distribution optimization and statistical analysis of data. Prior to joining DB, he worked for Union Pacific, CSX and Arup.

Relevant Skills

- Short- and long-term service planning for rail services
- Strong data analytical skills with combination of tools
- Experience with freight and passenger rail operations

Experience

Dallas Fort Worth Metroplex Pathing Study

Client	BNSF Railway
Contact	DJ Mitchell, Assistant Vice President, BNSF Railway, (817) 352-1230, dj.mitchell@bnsf.com
Year	08/2020-Ongoing
Position	Consultant

BNSF Railway operates over publicly-owned Trinity Railway Express between Dallas and Fort Worth, Texas. Through the TRE route BNSF is able to connect their Madill and Creek Subdivisions from Tulsa, OK and Madill, OK to the DFW Subdivision towards Teague, TX and ultimately Houston, TX. Combined, this route is an important component of BNSF industrial product and agricultural product franchises. BNSF seeks to understand identify the capacity of the corridor with existing (and BUILD grant) infrastructure and develop an operating plan to support passenger service and freight volume.

As Project Manager, Darkhan was responsible for developing and implementing methodologies for concept development and service planning work. He also oversaw the development of the operational analysis and the development of presentation material. Mr. Mussanov led regular technical working group meetings with stakeholders as well as periodic executive level briefings.

NCTD COASTER Service Expansion

Client North County Transit District (NCTD), CA
Contact Katie Person, Strategic Planner, NCTD
Year/Cost 03-2021- 07-2021, $110,000
Position Project manager

NCTD engaged DB E&C to develop an operating and financial plan for incremental COASTER service expansion to double service. DB E&C detailed equipment and crew rotations and built a financial plan that detailed the operating costs related to the service expansion. Plans integrate with Amtrak's Pacific Surfliner and Metrolink services to provide anywhere-to anywhere connectivity in Southern California. In a first time for rail sector in California, plans will also see slotted freight paths that the BNSF can operate during off-peak passenger operating times.

Darkhan managed the rail operations planning team to deliver the project. In addition to the main objectives, he supported coordination with parallel timetabling efforts conducted through other rail agencies to ensure that NCTD's ramp-up plans were compatible with LOSSAN corridor-wide objectives over the next 5 year planning cycle.

BNSF San Bernardino Subdivision Capacity Planning

Client BNSF Railway
Contact DJ Mitchell, Assistant Vice President, BNSF Railway, (817) 352-1230, dj.mitchell@bnsf.com
Year 08/2020-04/2021
Position Consultant

BNSF Railway's San Bernardino Subdivision is BNSF's freight corridor serving the Los Angeles area. The route also hosts passenger trains from Metrolink and LOSSAN, and future high speed rail service. Projected increases in freight and passenger train counts will result in the corridor exceeding its designed capacity.

Darkhan worked on network modeling, data, and infrastructure phasing analyses. He worked closely with BNSF and engaged in a multi-stakeholder process that resulted in defined needs for future service improvement and expansion toward a fully integrated commuter, intercity, and freight corridor.

Sounder South Corridor Capacity Planning

Client BNSF Railway and Sound Transit
Contact DJ Mitchell, Assistant Vice President, BNSF Railway, (817) 352-1230, dj.mitchell@bnsf.com
Year 08/2020-02/2021
Position Consultant

BNSF Railway's Seattle Subdivision is BNSF's crucial freight corridor serving the Puget Sound region. The route also hosts passenger trains from Sound Transit (ST) and Washington State DOT (WSDOT). Projected increases in freight and passenger train counts will result in the corridor exceeding its designed capacity in the next 16 years when Sound Transit projects expanding *Sounder* service to DuPont, WA. Expansion of additional main tracks is complicated by development and environmental concerns in the rail corridor

Darkhan supported the project team by analyzing the freight train capacity consumption and variability to understand how much capacity would be needed to support BNSF's freight franchise and passenger services.

Ultimately, he supported the development of process, technology, or infrastructure initiatives necessary to provide the right level of capacity for the specific horizons to support passenger and freight service.

Freight Pathing between Atwood-San Diego and Passenger Service extensions south of San Diego, CA

Client	BNSF Railway and North County Transit District (NCTD), CA
	☒ Check if project performed with current firm
Contact	DJ Mitchell, Assistant Vice President, BNSF Railway, (817) 352-1230, dj.mitchell@bnsf.com
Year/Cost	12/2019 – 09/2020 / $135,000
Position	Project Engineer

The BNSF and NCTD asked DB E&C to expand the scope of the LOSSAN Optimization study to include analysis on freight pathing on the San Diego subdivision to the Port of San Diego and passenger service extension south of the Santa Fe Depot. BNSF sought advice on investments needed to growth freight to 8 slots per day during passenger operations. Concurrently, DB E&C was tasked to analyze infrastructure improvements necessary to host passenger and freight operations in the Port of San Diego Area.

Darkhan supported technical effort of the project and provided analysis on mainline upgrades necessary to support expanded freight and passenger operations; staging requirements to allow freight trains to navigate around passenger schedules, and infrastructure investments necessary to allow revenue and non-revenue passenger movements to operate around freight facilities.

Development San Joaquin Spring 2019 schedule, San Joaquin Valley, CA

Client	San Joaquin Joint Powers Authority
Contact	Dan Leavitt, Manager of Regional Initiatives, San Joaquin Regional Rail Commission (209) 944-6266, dan@acerail.com
Year/Cost	12/2018 – 03/2019 / $96,000
Position	Project Engineer

The SJJPA requested a new timetable design for implementation in April 2019 that was to be built using regular and repeating train slots. The previous timetable had performed with lower reliability and ridership numbers.

Darkhan supported timetabling effort, by documenting planning parameters, placing train meets at double track sections and re-appraising runtimes.

Corridor Optimization Consultant Services for LOSSAN Rail Corridor Agency, CA

Client	LOSSAN Rail Corridor Agency
Contact	James Campbell, Manager of Programs, LOSSAN Rail Corridor Agency
Year/Cost	04/2019 – Ongoing / $990,000
Position	Project Engineer

The LOSSAN Rail Corridor Agency sought support to optimize both existing and planned levels of rail service by evaluating current operating practices and prioritizing groups of investment projects to development of integrated service plans and operating scenarios for a "pulsed-timetable network".

Darkhan supported the investigation of current operating practices through data analysis and workshops with operators on the corridors. Darkhan supported the development of near, mid-term concepts to distill infrastructure and operating procedure prioritization over the next decade. The effort resulted in a new schedule templates centered on pulse schedules for 2021, 2024 and 2028, and a list of prioritized infrastructure and capital needs.

Deutsche Bahn International Operations Metrolink Bid

Client Deutsche Bahn International Operations (DB IO)
Contact Janna Piorr, Director Strategy & Portfolio, DB IO Janna.piorr@deutschebahn.com
Year 2019
Position Project Engineer

Deutsche Bahn International Operations is a provider of contract rail operations for freight and passenger systems across the world. DB IO participated in the bid to be the Rail Operations, Maintenance, and Support Services provider for Metrolink, the Southern California commuter rail service.

As part of the bid process, DB IO was required to provide estimated costs for providing conductors and engineers to operate trains. In addition, DB IO was required to estimated costs for maintenance of locomotives and coaches used in Metrolink service.

Darkhan supported the bid through development of rolling stock equipment rotations that supported the existing Metrolink service pattern and reduced operating costs. Darkhan also developed work schedules for conductors and engineers that supported daily operations while minimizing labor expenses.

Caltrain Business Plan

Client Peninsula Corridor Joint Powers Board ("Caltrain")
Contact Sebastian Petty, Deputy Chief, Planning, Caltrain, (650) 730.8858, Pettys@samtrans.com
Year/Cost 2018 - Current / $500,000
Position Project Engineer

DB E&C, as a subcontractor to Fehr & Peers, supports the Peninsula Corridor Joint Powers Board (PCJPB or "Caltrain") in developing its transformational business plan laying out a vision for future rail service between San Francisco and Gilroy.

The project is focused on the development of multiple "evolutionary paths" which will show how the rail service on the Peninsula could grow between 2022 and 2040 and how Caltrain integrates into the state-wide passenger rail network, thus defining a plan from today's service through electrification and the launch of high-speed rail. The applied methodology focuses on the development of long-range vision scenarios first which then serve as a basis to define interim steps for service improvements utilizing incremental infrastructure investments. The benefits associated with each growth scenario are analyzed and the infrastructure and fleet required to deliver the service (including station capacity and access) are estimated. This analysis feeds into "business cases" around each scenario, laying out the cumulative set of costs and benefits associated with each growth scenario that Caltrain could take.

As a project engineer, Darkhan supported the development and analysis of conceptual service plans for the 2040 vision as well as two interim years. Darkhan worked on the conceptual development of the plans in Viriato and dynamic simulation tools. Darkhan also led technical working group meetings and participated in stakeholder outreach meetings presenting service plan material to a broader audience.

Long Island Railroad 3rd Track Expansion Project

Client MTA CC, New York City
Contact Mark Roche, Senior Director of Alternate Delivery, MTA, markroche@mainlineep.com
Year/Cost 2018 - 2019 / $2.6 billion

Position Graduate Rail Engineer

LIRR Expansion Project elements include but not limited to installation of additional track, signal, power and communications systems at Main Line branch of LIRR. Darkhan worked as a part of operations team to assess the impact of the construction on separate segments as well as the entire LIRR network. Darkhan assisted digital/production team to streamline data gathering process for environmental, safety and operations groups.

NEXUS Tyne and Wear, South Gosforth

Client Tyne and Wear Metro, Newcastle, UK
Contact Steve Brown, Managing Director, Rail Aspects Limited, steve.brown@railaspects.com
Year/Cost 2018 - 2019
Position Graduate Rail Engineer

NEXUS Tyne and Wear Metro expressed desire to rebuild South Gosforth yard at Newcastle, UK. Darkhan worked on the estimation of the impact of construction phasing the yard on daily operation. Possible switching, washing and maintenance issues were considered. In addition, Darkhan developed a simple optimization model for minimization of deadhead in the system during construction.

Allston Multimodal Project

Client MassDOT, Boston
Contact Hal Bransby, Operation consultant, Arup, hal.bransby@arup.com
Year/Cost 2018
Position Graduate Rail Engineer

Allston Multimodal Project is the result of the need to replace a structurally deficient, obsolete highway viaduct over Worcester Commuter Line in Boston. Darkhan worked on the railroad feasibility study which compared 3-track and 4-track Grand Junction configurations with respect to level-of-service for future volume of freight and passenger service.

Union Pacific Railroad, NPO Service Design Intern

Contact Justin Haugen, Sr Dir Transportation Planning and Scheduling, UPRR, (402) 544-4021, jrhaugen@up.com
Year 2017

Introduced a train plan tool that passed proof of concept and led to overall potential yearly savings of +$12 million via reduced crew savings and substantially longer trains in the railway network. Simple SQL programming and statistical techniques were used.

SMA Rail Consulting + IT, Consultant Trainee

Contact Ulrich Leister, Director Consulting, (202) 459-1656, ulrich.leister@deutschebahn.com
Year 2016

Developed an all-station on time performance database for passenger railroads in Southern California. Constructed a pilot simulation of the live operation for Metrolink San Gabriel subdivision using OpenTrack simulation software. Excel and Opentrack simulation software were used extensively.

CSX Transportation Railroad, Network Capacity Modeling and Planning Intern

Contact Hannah Rosse, Dir Service Measurements, CSX, (904) 487-2984, Hannah_rosse@csx.com

Year 2015

Recorded and analyzed performance data for single and double track systems under various throughputs of coal, automotive and intermodal trains with assigned priorities. Created extensive and detailed train schedules for three mainline live corridors. Designed and utilized single and double track systems using Rail Traffic Controller (RTC) simulation software.

EXHIBIT 5

Kali Bracey
Tel +1 202 639 6867
KBracey@jenner.com

November 8, 2021

VIA EMAIL

Raymond A. Atkins
Matthew J. Warren
Stephen S. Laudone
SIDLEY AUSTIN LLP

ratkins@sidley.com
mjwarren@sidley.com
slaudone@sidley.com

Re: Request to Re-designate "HIGHLY CONFIDENTIAL" Documents

Dear Counsel:

CSX Transportation, Inc. (CSXT) produced approximately 7,165 documents in discovery, designating each and every one of them as either "CONFIDENTIAL" or "HIGHLY CONFIDENTIAL." Many of the "CONFIDENTIAL" documents are publicly available on the Internet or elsewhere and should not have been marked "CONFIDENTIAL." However, our main concern is with those documents that have been designated "HIGHLY CONFIDENTIAL," such that we cannot share them with our clients at all. Many of these documents do not contain any competitively sensitive information, as required by the Parties' April 14, 2021 Protective Order.

First, we request that you revisit the designation of the November 3, 2021 workpapers as "HIGHLY CONFIDENTIAL." It is perplexing that CSXT and Norfolk Southern Railway Company (NSR), CSXT's direct competitor, apparently shared and filed the workpapers together and yet these same workpapers cannot be shared with Amtrak, which is not a freight competitor. Second, we request that you revisit the designation of the documents listed below. With respect to both these documents and the November 3, 2021 workpapers (collectively, the "Disputed Documents"), we request that you redesignate these documents either "CONFIDENTIAL" or reproduce them without any confidentiality markings. In the alternative, we request that you provide an explanation for each document, explaining why it has been designated "HIGHLY CONFIDENTIAL."

Bates Stamp Identification No.	Description
CSX_AmtrakGC_0000001	Actuals data description
CSX_AmtrakGC_0000003	Actuals Gulf Line 2015 to Present

CSX_AmtrakGC_0000004	Milepost maps for Viriato coding
CSX_AmtrakGC_0000005	Milepost maps for Viriato coding
CSX_AmtrakGC_0000006	Milepost maps for Viriato coding
CSX_AmtrakGC_0000007	Profiles data description
CSX_AmtrakGC_0000008	Profiles 2015 to Present
CSX_AmtrakGC_0000009	Summary of actual and profile data
CSX_AmtrakGC_0000010	Train type and class glossary
CSX_AmtrakGC_0004223	OS Data
CSX_AmtrakGC_0004224	OS Data
CSX_AmtrakGC_0008086	OS Data
CSX_AmtrakGC_0008087	OS Data
CSX_AmtrakGC_0008090	OS Data
CSX_AmtrakGC_0008091	OS Data
CSX_AmtrakGC_0008094	OS Data
CSX_AmtrakGC_0008102	M&M Timetable
CSX_AmtrakGC_0008464	Gulf Coast Projected Growth
CSX_AmtrakGC_0008514	Gulf Coast Projected Growth
CSX_AmtrakGC_0022468	HDR 2016 Study
CSX_AmtrakGC_0023278	Gulf Coast Track Charts
CSX_AmtrakGC_0027098	NO&M Timetable
CSX_AmtrakGC_0030593	Amtrak skeletons
CSX_AmtrakGC_0032402	Bridge summary

As you are aware, under Paragraph 2 of the Protective Order, only material that "reflects competitively sensitive information" may be designated and stamped as "HIGHLY CONFIDENTIAL." As you have previously noted, "highly confidential material" is "material deemed so sensitive that it can only be shared with outside counsel and consultants" and "the designating party should have the burden of showing *serious competitive harm* from disclosure." Email from Matthew Warren, Sidley Austin LLP, to Jessica Amunson et al., Jenner & Block LLP (Apr. 5, 2021, 11:38 a.m. EDT) (emphasis added) (on file); *see also Trailer Bridge, Inc. v. Sea Star Lines, LLC*, STB Docket No. WCC-104 (STB served May 5, 2000). The Disputed Documents do not contain information that meets this standard and CSXT bears the burden of identifying what "serious competitive harm" would result from allowing Amtrak to view these documents.

The subset of "HIGHLY CONFIDENTIAL" documents identified above contain primarily maps and past timetables related to CSXT's rail operations. They do not contain any information that would cause serious competitive harm if disclosed to Amtrak. Indeed, some of these documents, such as the HDR 2016 Study, are already publicly available on the Internet. Similarly, the workpapers filed on November 3, 2021, were jointly filed with CSXT's direct competitor, NSR, and any claim of serious competitive harm from sharing those documents has therefore been waived.

To avoid Board intervention, we request that you reconsider the designations for the documents identified herein. If you disagree with this request, please provide an explanation as to why each of the Disputed Documents is considered "HIGHLY CONFIDENTIAL."

Sincerely,

/s/ Kali Bracey

Kali Bracey

Kali Bracey
Tel +1 202 639 6867
KBracey@jenner.com

November 8, 2021

VIA EMAIL

Williams A. Mullins
Crystal M. Zorbaugh
BAKER & MILLER PLLC

WMullins@bakerandmiller.com
CZorbaugh@bakerandmiller.com

Re: Request to Re-designate "HIGHLY CONFIDENTIAL" Documents

Dear Counsel:

Norfolk Southern Railway Company (NSR) has produced approximately 3,967 documents in discovery, designating each and every one of them as either "CONFIDENTIAL" or "HIGHLY CONFIDENTIAL." Many of the "CONFIDENTIAL" documents are publicly available on the Internet or elsewhere and should not have been marked "CONFIDENTIAL." However, our main concern is with those documents that have been designated "HIGHLY CONFIDENTIAL," such that we cannot share them with our clients at all. Many of these documents do not contain any competitively sensitive information, as required by the Parties' April 14, 2021 Protective Order.

First, we request that you revisit the designation of the November 3, 2021 workpapers as "HIGHLY CONFIDENTIAL." It is perplexing that NSR and CSX Transportation, Inc. (CSXT), NSR's direct competitor, apparently shared and filed the workpapers together and yet these same workpapers cannot be shared with Amtrak, which is not a freight competitor. Second, we request that you revisit the designation of the documents listed below. With respect to both these documents and the November 3, 2021 workpapers (collectively, the "Disputed Documents"), we request that you redesignate these documents either "CONFIDENTIAL" or reproduce them without any confidentiality markings. In the alternative, we request that you provide an explanation for each document, explaining why it has been designated "HIGHLY CONFIDENTIAL."

Bates Stamp Identification No.	Description
NSR-00006230	NS Train Data
NSR-00006245	NS Train Data
NSR-00014039	NS Train Data
NSR-00014040	NS Train Data

NSR-00014045	NS Train Data
NSR-00014061	NS Train Data
NSR-00014062	NS Growth Data
NSR-00025566	NS bridge data
NSR-00025567	NS Train Data
NSR-00025568	NS Track chart
NSR-00032322	NS OS Data
NSR-00032321	NS OS Data

As you are aware, under Paragraph 2 of the Protective Order, only material that "reflects competitively sensitive information" may be designated and stamped as "HIGHLY CONFIDENTIAL." As CXST has previously noted, "highly confidential material" is "material deemed so sensitive that it can only be shared with outside counsel and consultants" and "the designating party should have the burden of showing *serious competitive harm* from disclosure." Email from Matthew Warren, Sidley Austin LLP, to Jessica Amunson et al., Jenner & Block LLP (Apr. 5, 2021, 11:38 a.m. EDT) (emphasis added) (on file); *see also Trailer Bridge, Inc. v. Sea Star Lines, LLC*, STB Docket No. WCC-104 (STB served May 5, 2000). The Disputed Documents do not contain information that meets this standard and NSR bears the burden of identifying what "serious competitive harm" would result from allowing Amtrak to view these documents.

The subset of "HIGHLY CONFIDENTIAL" documents identified above contain primarily data related to NSR's rail operations. They do not contain any information that would cause serious competitive harm if disclosed to Amtrak. Similarly, the workpapers filed on November 3, 2021, were jointly filed with NSR's direct competitor, CSXT, and any claim of serious competitive harm from sharing those documents has therefore been waived.

To avoid Board intervention, we request that you reconsider the designations for the documents identified herein. If you disagree with this request, please provide an explanation as to why each of the Disputed Documents is considered "HIGHLY CONFIDENTIAL."

Sincerely,

/s/ Kali Bracey

Kali Bracey

EXHIBIT 6

SIDLEY

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November 15, 2021

By Email

Kali N. Bracey
Colleen M. Reddan
Jonathan A. Enfield
1099 New York Avenue, NW, Suite 900
Washington, DC 20001-4412

Re: Finance Docket No. 36496, *Application of the National Railroad Passenger Corp. Under 49 U.S.C. § 24308(e) – CSX Transportation, Inc. and Norfolk Southern*

Dear Counsel:

We are writing in response to your November 8, 2021 letter regarding the confidentiality designations of (1) the workpapers submitted in connection with the opening evidence filed by CSX Transportation, Inc. ("CSXT") and Norfolk Southern Railway Company ("NSR") on November 3, 2021; and (2) documents produced by CSXT during discovery in September 2021. We have reviewed the documents that you asked about, and are reducing the designation of some of them to CONFIDENTIAL. However, many of the documents you identified consist of traffic data, growth forecasts, or other competitively sensitive information that plainly merits a HIGHLY CONFIDENTIAL designation.

The Surface Transportation Board adopted the parties' jointly proposed protective order, which provides that a party may designate and stamp material produced in discovery as HIGHLY CONFIDENTIAL if that party believes such material "reflects competitively sensitive information."[1] The Board has long recognized that the "unrestricted disclosure of confidential, proprietary, or commercially sensitive material *could cause serious competitive injury*," and that a HIGHLY CONFIDENTIAL designation ensures that commercially sensitive material "will be used in connection with this proceeding and not for any other business or commercial purpose."[2]

[1] Decision at 3, *Application of the National Passenger Railroad Corporation Under 49 U.S.C. § 24308(e)—CSX Transportation, Inc. and Norfolk Southern Railway Company*, STB Docket No. FD 36496 (served Apr. 14, 2021).

[2] *Trailer Bridge, Inc. v. Sea Star Lines, LLC*, STB Docket No. WCC 104, at 2 (served May 10, 2000).

To that end, CSXT has designated certain classes of information HIGHLY CONFIDENTIAL in both discovery and in the opening evidence workpapers. All documents, data, and information that reflect the movement of trains on CSXT's network are commercially sensitive. This would include OS data, train profile data, dispatch data, operating plans, and actual train movement data. This data could be used to determine the identity and location of CSXT customers, to obtain customer-specific traffic information such as car volumes, and to analyze CSXT's business and operations strategy. For the same reasons, CSXT also designated as HIGHLY CONFIDENTIAL any documents that contained analysis or projects of future freight growth because this information reveals CSXT's strategy for accommodating expected growth, the status of its customer relationships (existing and prospective), and the overall competitive position of the company.

This type of commercially sensitive material is protected against disclosure by federal law. Rail carriers are prohibited from disclosing—"without the consent of the shipper or consignee"—information concerning "the nature, kind, quantity, destination, consignee, or routing of property tendered or delivered to that rail carrier for transportation." 49 U.S.C. § 11904(a)–(b). This type of commercially sensitive information is routinely designated as HIGHLY CONFIDENTIAL in STB proceedings.[3]

If CSXT were to downgrade commercially sensitive data from HIGHLY CONFIDENTIAL to CONFIDENTIAL, that data would be available to the business personnel and in-house attorneys of all parties to this proceeding—including NSR, CSXT's direct competitor. This could reasonably result in economic and competitive harm to CSXT. Moreover, although Amtrak does not compete with CSXT for freight traffic, Amtrak does regularly engage with CSXT's Class I competitors with respect to passenger service and its impact on freight service. Therefore, CSXT is reasonably concerned that the disclosure of commercially sensitive information to Amtrak business personnel and in-house attorneys may result in economic or competitive harm to CSXT. As the Board observed in *Trailer Bridge*, "[i]n-house counsel has obligations to his employer and has interests as an employee which necessarily jeopardize the

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[3] *See*, *e.g.*, *CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company—Control and Operating Leases/Agreements—Conrail Inc. and Consolidated Rail Corporation*, STB Docket No. FD 33388, Decision No. 1 at 1, 4 (served Apr. 16, 1997) (noting that exchange of "traffic data and tapes" could implicate 49 U.S.C. § 11904 and approving highly confidential designation); *Capital Materials Incorporated—Petition for Declaratory Order—Certain Rates and Practices of Norfolk Southern Railway Company*, STB Docket No. NOR 42068, at 5, 8 (served Apr. 19, 2002) (highly confidential designation included "traffic data" and "other competitively sensitive information," and was appropriate because "disclosure of confidential, proprietary, or commercially sensitive material could cause serious competitive injury").

confidentiality of a competitor's commercially sensitive information entrusted to him."[4] Moreover, Congress has specifically mandated that railroads maintain the confidentiality of shipper information, including the nature, kind, quantity, destination, consignee, or routing of property tendered or delivered to that rail carrier for transportation.

With these well-accepted principles in mind, we will now turn to your specific requests.

Workpapers

You first requested that we "revisit the designation of the November 3, 2021 workpapers as 'HIGHLY CONFIDENTIAL.'" Amtrak November 8 Letter at 1. This request is predicated on the claim that NSR and CSXT "apparently shared and filed the workpapers together." *Id.* That is nonsense. CSXT and NSR retained joint outside consultants who received commercially sensitive data separately from CSXT and NSR and who jointly prepared workpapers reflecting that information. At no time were CSXT documents containing OS data, dispatch data, train data, or freight growth analysis data shared with NSR in-house personnel. Nor did NSR share similarly sensitive information with CSXT in-house personnel. All this highly confidential information was exclusively limited to outside counsel and consultants, as contemplated by the protective order and standard STB practice.

CSXT and NSR's outside counsel have conferred about the workpaper designations and have concluded that some redesignations can be made:

With respect to the Engineering Cost Assessment Workpapers that support the report of V3 Companies, we are redesignating everything as CONFIDENTIAL except for the spreadsheet entitled "OOM_20200526_Pricing CSX," which is located in the "CSX provided info" folder, and the pdf entitled "Gulf Coast RTC Study (FINAL)" located in the top level folder. Those two documents shall remain designated HIGHLY CONFIDENTIAL.

With respect to the RTC Report Workpapers, we are re-designating certain documents as CONFIDENTIAL. First, we are re-designating the "Gulf Coast RTC Workpapers" index as CONFIDENTIAL, a revised version of which is attached to this letter as Appendix A. All documents and folders listed on Appendix A are re-designated CONFIDENTIAL except for those highlighted in yellow. All documents and folders highlighted in yellow, as well as the documents contained in those folders, remain designated HIGHLY CONFIDENTIAL.

[4] *Trailer Bridge*, No. WCC 104, at 2. And Amtrak has not argued that "it would be an undue financial burden to . . . acquire outside counsel" or an outside consultant to review documents and information designated HIGHLY CONFIDENTIAL. *Id.* at 3 (observing that Trailer Bridge had already "retained competent outside counsel" to participate in the proceeding).

The documents in both the Engineering Cost Assessment and RTC Report Workpapers that remain HIGHLY CONFIDENTIAL contain commercially sensitive information including OS data, train profile data, dispatch data, operating plans, actual train movement data, or analysis and projections of future freight growth. Moreover, all RTC input files remain designated HIGHLY CONFIDENTIAL because they directly rely on, incorporate, and depict this commercially sensitive information.

Discovery Documents

You also requested that we "revisit the designation" of a specific list of 24 documents produced in discovery that were designated as HIGHLY CONFIDENTIAL. Amtrak November 8 Letter at 1–2. Many of these documents were produced over two months prior to your November 8 letter, and it is not clear why Amtrak delayed so long in making this request. Regardless, we agree that some of the documents set forth in the table below were inadvertently produced as HIGHLY CONFIDENTIAL. In most instances, the HIGHLY CONFIDENTIAL designation was applied because the document in question was part of a larger family that contained documents that were properly designated HIGHLY CONFIDENTIAL.

In the chart below, we have identified which documents may be treated as re-designated CONFIDENTIAL and which documents shall remain designated HIGHLY CONFIDENTIAL.

Bates Stamp	Amtrak Description	Designation
CSX_AmtrakGC_0000001	Actuals data description	Confidential
CSX_AmtrakGC_0000002	Actuals Gulf Line 2015 to Present	Highly Confidential
CSX_AmtrakGC_0000003	Milepost maps for Viriato coding	Confidential
CSX_AmtrakGC_0000004	Milepost maps for Viriato coding	Confidential
CSX_AmtrakGC_0000005	Milepost maps for Viriato coding	Confidential
CSX_AmtrakGC_0000006	Profiles data description	Confidential
CSX_AmtrakGC_0000007	Profiles 2015 to Present	Highly Confidential
CSX_AmtrakGC_0000008	Summary of actual and profile data	Confidential
CSX_AmtrakGC_0000009	Train type and class glossary	Highly Confidential
CSX_AmtrakGC_0004223	OS Data	Highly Confidential
CSX_AmtrakGC_0004224	OS Data	Highly Confidential
CSX_AmtrakGC_0008086	OS Data	Highly Confidential
CSX_AmtrakGC_0008087	OS Data	Highly Confidential

Bates Stamp	Amtrak Description	Designation
CSX_AmtrakGC_0008090	OS Data	Highly Confidential
CSX_AmtrakGC_0008091	OS Data	Highly Confidential
CSX_AmtrakGC_0008094	OS Data	Highly Confidential
CSX_AmtrakGC_0008102	M&M Timetable	Confidential
CSX_AmtrakGC_0008464	Gulf Coast Projected Growth	Highly Confidential
CSX_AmtrakGC_0008514	Gulf Coast Projected Growth	Highly Confidential
CSX_AmtrakGC_0022468	HDR 2016 Study	Confidential
CSX_AmtrakGC_0023278	Gulf Coast Track Charts	Confidential
CSX_AmtrakGC_0027098	NO&M Timetable	Confidential
CSX_AmtrakGC_0030593	Amtrak skeletons	Confidential
CSX_AmtrakGC_0032402	Bridge summary	Confidential

CSXT shares Amtrak's desire to avoid Board intervention in disputes over confidentiality designations. To that end, please feel free to reach out if you would like to discuss these issues further.

Sincerely

/s/ Matthew J. Warren

Matthew J. Warren

Attachment

cc: William A. Mullins, Counsel for Norfolk Southern Railway Company

Appendix A

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION

EXHIBIT 7

REDACTED – CONTAINS
CONFIDENTIAL INFORMATION