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November 18, 2026

VIA E-FILING

Chief of Case Administration
Office of the Chief Counsel
Surface Transportation Board
395 E Street, SW
Washington, DC 20423

Re: STB Docket No. FD 36873 *Union Pacific Corporation and Union Pacific Railroad Company—Control—Norfolk Southern Corporation and Norfolk Southern Railway Company*

Dear Chief of Case Administration:

Attached for e-filing is the Southeastern Pennsylvania Transportation Authority's ("SEPTA") Comment and Request for Conditions in the above referenced proceeding.

If you have any questions please do not hesitate to contact me.

Sincerely,

Ayelet Hirschkorn
Attorney at Law

Counsel for Southeastern Pennsylvania Transportation Authority

Enclosures

CC: Parties of Record

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BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN COMPANY

COMMENT OF SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY ON AMENDED APPLICATION

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Dated: November 18, 2026

This document contains color images.

BEFORE THE
SURFACE TRANSPORTATION BOARD

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INTRODUCTION AND SUMMARY

Applicants[1] propose a merger that will increase by over 60% the number of rail cars along a touted new transcontinental route that passes through Southeastern Pennsylvania Transportation Authority ("SEPTA"). Notwithstanding existing contractual obligations to not interfere with SEPTA's passenger rail service, including long-planned future expanded service, Applicants' significantly longer trains will cause delays to either freight trains, passenger trains, or both on SEPTA's territory. Yet Applicants do not address or even acknowledge this issue in their filings. Applicants should not be allowed to ignore this issue now only to railroad SEPTA later into enduring deteriorated service and limits on future growth of its passenger rail service, ostensibly with the Board's imprimatur. Instead, Applicants should honor NS's contractual obligations and be required to accept reasonable time-of-day restrictions in the near term and fund longer term capital improvements that separate its longer merger trains from SEPTA's essential passenger rail

[1] Applicants in this proceeding are Union Pacific Railroad Company and Union Pacific Corporation (collectively, "UP"), and Norfolk Southern Railway Company and Norfolk Southern Corporation (collectively, "NS"). UP and NS will collectively be referred to as "Applicants."

service. Otherwise, the public benefits Applicants claim will not be realized and essential passenger rail service will be harmed.[2]

PROCEDURAL BACKGROUND

On April 30, 2026, Applicants filed an Amended Application[3] to merge to create the first American transcontinental railroad. UP-39/NS-37, at 1-15. The Board accepted the Amended Application on August 18, 2026 and ordered comments from the public to be filed with the Board by November 18, 2026. Decision No. 30. Accordingly, SEPTA files this comment.

COMMENT

I. THE BOARD IS REQUIRED TO CONSIDER THE PUBLIC INTEREST, INCLUDING HARM TO ESSENTIAL PASSENGER RAIL SERVICE, IN APPROVING THE AMENDED APPLICATION[4]

The Board's approval of a merger requires it to determine that "the transaction is consistent with the public interest." 49 U.S.C. § 11324(c). Federal statutory rail policy and the Board's regulations reflect that the public interest standard is a broad concept and does not simply reflect maintaining status quo. *See* 49 U.S.C. §§ 10101(4), (8); 49 C.F.R. § 1180.1(c). The Board's authority over railroad mergers is exclusive and its approval of a railroad merger preempts "all other law . . . as necessary to let that rail carrier . . . operate property." 49 U.S.C. § 11321(a).

[2] SEPTA will address any potential impacts of responsive applications and environmental filings at a later time pursuant to the Board's procedural schedule.
[3] The Board denied Applicants' original application, which Applicants filed on December 19, 2025, but granted Applicants leave to refile. Decision No. 9, slip op. at 1-3.
[4] SEPTA intends to file a legal brief pursuant to the Board's procedural schedule in which it will lay out its legal arguments in full.

The Board's regulations require that the Board take into account wherever feasible the potential harm to essential services, including passenger and commuter rail services, when considering a merger application like this one. 49 C.F.R. § 1180.1(c)(2)(ii). Service is essential where there is sufficient public need for the service and adequate alternative transportation is not available. *Id.* The Board's regulations provide that "[m]ergers should strengthen, not undermine, the ability of the rail network to advance the nation's economic growth and competitiveness, both domestically and internationally." *Id.*

In order to demonstrate that the merger is in the public interest and that essential service is not unduly harmed, the Board's regulations require merger applicants to conduct and submit a range of information, including impacts to passenger rail service. Applicants must conduct an impact analysis on the impacts of the transaction on the provision of essential passenger rail service, 49 C.F.R. § 1180.7(b), and detail anticipated impacts on passenger rail services on the applicants' lines, *Id.* § 1180.8(b)(2).

Applicants must also develop and submit a Service Assurance Plan "identifying the precise steps taken to ensure adequate service and provide for improved service." 49 C.F.R. §§ 1180.1(h)(1); *see also* 1180.10. For commuter services operated over the lines of Applicants, Applicants must "describe definitively how [Applicants] would continue facilitate . . . operations so as to fulfill existing performance agreements for those services." *Id.* 1180.10(b). The Service Assurance Plan must include a description of operating protocols ensuring effective communications with passenger rail operators to minimize any potential transaction-related negative impacts, "[w]hether or not the passenger services are operated over lines of applicants or applicants' operations are on the lines of passenger agencies." 49 C.F.R. § 1180.10(b). Applicants

"must identify potential infrastructure impediments . . . formulate solutions to those impediments, and develop time frames for resolution." *Id.* § 1180.10(d). Board regulations also require Applicants to include system benchmarking for "[p]assenger train performance for commuter and intercity passenger services." *Id.* § 1180.10(k)(3)(iv).

"The Board has broad authority under 49 U.S.C. § 11324(c) to impose conditions on consolidations." 49 C.F.R. § 1180.1(d). It "will condition the approval of Class I combinations to mitigate or offset harm to the public interest," and "may impose conditions that are operationally feasible and produce net public benefits." *Id*. In the past, the Board has asserted its condition authority to ensure merger applicants implement capital improvements and operational adjustments necessary to ensure passenger rail service is not harmed from the impacts of a merger. *See, e.g., CSX Corp. et al.—Control and Merger—Pan Am Systems, Inc., et al.*, FD 36472, at 24-25, 27 (STB served Apr. 14, 2022).

II. SEPTA PROVIDES ESSENTIAL PASSENGER RAIL SERVICE OVER ITS NORRISTOWN BRANCH RAIL LINE, WHICH IS SET TO INCREASE IN FREQUENCY

SEPTA is a regional transportation authority organized under the laws of the Commonwealth of Pennsylvania, *see* the Metropolitan Transportation Authorities Act, 74 PA. CONS. STAT. §§ 1701-1785, and with a principal place of business in Philadelphia, Pennsylvania. SEPTA is the fifth busiest commuter rail system in the country in size, handling approximately 90,000 passengers per day as of October 2026. Verified Statement of Ryan Judge ¶ 3, attached as **Exhibit A**. SEPTA operates Regional Rail, its regional "commuter" rail passenger service, along with bus and metro rail services. *Id.* Regional Rail operates rail service using over 270 train cars

to service 770 scheduled trips over 13 lines to over 150 stations in and around Philadelphia, including portions of New Jersey and Delaware. *Id.*; *see also* Verified Statement of MaryAnn Tierney ¶ 3, attached as **Exhibit B**.

SEPTA's Norristown Branch ("NOR"), one of SEPTA's 13 Regional Rail lines, operates passenger rail service between downtown Philadelphia and Norristown in Montgomery County, PA, approximately 18 miles to the northwest. *Id.*; Map of NOR near Norristown within SEPTA territory, attached as **Exhibit C**. SEPTA operates 53 weekday and 38 weekend/holiday passenger trains on NOR, starting before 6 a.m. and ending after midnight each day. V.S. Tierney, **Exhibit B**, ¶ 6; SEPTA, Manayunk/Norristown Line Schedule, attached as **Exhibit D**. In Norristown, NOR serves the Norristown Transit Center ("NTC"), a major transit center that connects passengers between NOR and SEPTA's M light metro line and more than half a dozen bus routes. V.S. Judge, **Exhibit A**, ¶ 5.

SEPTA's market analysis identifies that NOR serves one of Regional Rail's strongest all-day commute markets. *Id.* ¶ 7; SEPTA, Regional Rail Addressable Market Analysis, Technical Memorandum (Sept. 2025) (Market Analysis) (excerpted), attached as **Exhibit E**, at 41-44. SEPTA has determined that travel demand on NOR remains robust throughout the day and is no longer concentrated solely in traditional peak commuting periods. V.S. Judge, **Exhibit A**, ¶ 7. Addressable market demand on the line is generally 7,000 trips or more per hour, comparable to demand levels on SEPTA's Paoli/Thorndale Regional Rail Line, which currently benefits from more frequent service. *Id*. SEPTA's analysis further concludes that ridership is closely correlated with service availability and identifies NOR as a corridor where additional all-day service would be warranted based on existing travel demand. *Id*. ¶ 8. SEPTA captures less than 6% of the

potential market on this corridor, short of the >25% that can be expected when all-day frequent service is operated. *Id.*

These findings reinforce the conclusions of the Regional Rail Master Plan ("RRMP"), which identified NOR as one of SEPTA's highest-potential corridors for ridership growth. *See* SEPTA RRMP (excerpted), attached as **Exhibit F**, at 140-141.[5] The RRMP's travel demand modeling, conducted using the regional travel model of Greater Philadelphia's Metropolitan Planning Organization, the Delaware Valley Regional Planning Commission ("DVRPC"), found that ridership increases most significantly on lines with strong underlying demand and improved frequencies, including NOR. V.S. Judge, **Exhibit A**, ¶ 10. The RRMP also mapped out underlying transit demand, SEPTA RRMP, **Exhibit F**, at 76-77, 180-181, which is the estimated level of transit service that can be sustained based on population density, employment types and density, and socioeconomic factors. V.S. Judge, **Exhibit A**, ¶ 11. The greater the underlying demand, the more frequent service the area can support and the higher levels of transit ridership when new service is introduced. *Id.* The Network Vision outlined in the RRMP is based on public feedback, historical ridership trends, an evaluation of infrastructure constraints, and forecasted population and employment growth across the region. *Id.* ¶ 12. According to the underlying demand map, NOR can support all-day, frequent service, especially to the major regional employment centers of Norristown and Conshohocken. *Id.* ¶¶ 8, 13; *see also* SEPTA RRMP, **Exhibit F**, at 77.

The RRMP evaluated multiple future operating scenarios using DVRPC's Travel Demand Model and found that increased frequency is the single greatest driver of ridership growth. SEPTA

[5] The full draft RRMP is available online: https://wwww.septa.org/initiatives/regional-rail/reimagining-regional-rail/.

RRMP, **Exhibit F,**. at 107-161. Among SEPTA's Regional Rail lines, NOR exhibited some of the strongest projected ridership gains when service frequency was improved. V.S. Judge, **Exhibit A**, ¶ 15. Under Scenario 2, ridership on the line increased by approximately 73% percent when frequencies improved from every 30 minutes to every 15 minutes. *Id.*; SEPTA RRMP, **Exhibit F,** at 140.

While alternative transit options exist between Norristown and Center City Philadelphia, none provide the combination of travel time, reliability, capacity, and regional connectivity offered by the NOR Regional Rail service. V.S. Judge, **Exhibit A**, ¶ 17. Existing transit alternative for NOR (inbound) currently include the M from NTC southbound to 69th Street Transit Center for connection to the L eastbound to 15th Street/City Hall, which is slower and requires a transfer to reach downtown Philadelphia. *Id*. ¶ 18. In the Summer of 2027, Phase 3 of the New Bus Network will take effect, providing improvements to bus service in Norristown and introducing a SEPTA Go Zone in Montgomery County, which will improve local mobility but will not serve as a substitute for the high-capacity, regional connectivity provided by NOR. *Id*. ¶ 19. Higher frequency and off-peak service is crucial to serve major job centers and relieve regional traffic congestion on I-76. *Id*. ¶ 20. Consequently, maintaining and expanding reliable Regional Rail service remains critical to meeting existing and future travel demand along NOR. *Id.* ¶ 21.

To reach additional riders and serve the critical transportation needs of local communities, SEPTA's long-term service strategy envisions progressively increasing service frequency on NOR. *Id*. SEPTA's RRMP, drafted long before Applicants announced their merger, calls for increasing NOR frequency to every 20 minutes starting in 2035 and eventually to 15 minutes all-day in 2045. *Id*. ¶ 16; SEPTA RRMP, **Exhibit F**, at 214, 230-36, 250-51. Frequent, reliable service

is not merely a service enhancement but a critical component of SEPTA's adopted regional mobility strategy and a necessary response to documented travel demand in Montgomery County and Northwest Philadelphia. V.S. Judge, **Exhibit A**, ¶ 16.

III. NS OPERATES OVER NOR SUBJECT TO A TRACKAGE RIGHTS AGREEMENT THAT REQUIRES PREFERENCE FOR PASSENGER RAIL TRAINS

NS operates on a segment of line in Norristown that SEPTA owns and dispatches between the NORRIS interlocking and the FORD interlocking and signal (the "Shared Segment"), which functions as the only link between two NS mainlines, the Harrisburg Line and Morrisville Line, where freight moving west-to-east interchanges with CSX, Conrail, or intermodal transloading to last-mile destinations. Map of NS-SEPTA Norristown Interface, attached as **Exhibit G**; V.S. Tierney, **Exhibit B**, ¶¶ 6-7. The Shared Segment includes a segment of NOR where both NS's freight trains and SEPTA's passenger trains operate between the KALB interlocking and signal and FORD. *Id*. NS trains move from NS track at FORD connecting into SEPTA Track 2, moving through FORD interlocking across the plant to Track 1 then traveling along track 1 through NTC then through KALB interlocking and back onto NS territory (in both directions). V.S. Tierney, **Exhibit B**, ¶ 8. This maneuver requires crossing or occupying SEPTA's separate northbound and southbound tracks, and results in freight trains occupying track used by SEPTA trains, forcing SEPTA trains to be held until the freight trains pass. *Id*.

NS operates over the Shared Segment pursuant to a trackage rights agreement originally entered into between SEPTA and Conrail in 1990 ("Trackage Rights Agreement") that NS acquired through its partial acquisition of Conrail in 1998. *See* Trackage Rights Agreement

(excerpted), attached as **Exhibit H**, Ex. 1, Category B. Under the terms of the trackage rights, SEPTA retains dispatching control and overall management and operational control over all rail service on the Shared Segment. *Id.*, Section 3.01(a). The Trackage Rights Agreement also provides that "the scheduling and movement of SEPTA passenger trains shall take preference over all other train scheduling and movements." *Id.* Section 3.01(b). Although NS is allowed to increase its freight service, "the character, scheduling or extent of the freight service shall not unreasonably interfere with SEPTA's existing or planned uses of SEPTA Rail Properties." *Id.* Section 3.01(c). The Trackage Agreement stipulates that SEPTA's right to control trains on its lines "shall not be exercised in a manner which would unreasonably interfere with [NS's] Trackage Rights." *Id.* Section 3.01(a).

SEPTA dispatches NS freight trains on the Shared Segment. V.S. Tierney, **Exhibit B**, ¶ 7. During a scheduled freight movement, all NOR passenger trains must stop before the interlocking limits or hold at NTC to let freights pass. *Id.* ¶ 9. Typically, a freight window includes 20 minutes of advance signal time to line the route for freight and accelerate the train from a standstill, and 8-10 minutes (for trains 5,000-7,000 feet in length) of passing through and clearing the Shared Segment at 25MPH, for a total of 30 minutes. *Id.* ¶ 10.

IV. APPLICANTS PROPOSE TO RUN SIGNIFICANTLY LONGER TRAINS ON THE SHARED SEGMENT THAT WILL CREATE NEW CONFLICTS AND INTERFERENCE

The centerpiece of Applicants' pitch for their merger is a series of new, single-line transcontinental routes that Applicants say will create efficiencies and transportation benefits to the public. UP-39/NS-37, 1-42. Applicants disclose that one of their new routes will traverse the

Shared Segment, bringing with it a 61% increase in merger-related carloads. V.S. Judge, **Exhibit A**, ¶ 24; UP-39/NS-37, 2-725 to 2-726 (CCICX/ZCXCI); Second Errata Electronic Appendices E, M (Row 11, "10006-MORRISVILLE LINE," indicating merger-related increase from 57,101 to 92,071 carloads per year). However, Applicants will not increase the number of merger-related trains per day on the Shared Segment. Second Errata Electronic Appendix T (Row 11, "10006-MORRISVILLE LINE").

Increasing the number of cars 61% without increasing the number of freight trains indicates that the merger trains will be longer. Longer freight trains will take longer to clear SEPTA's tracks, leading to SEPTA's time-sensitive passenger trains waiting longer to operate, thereby disrupting current schedules. SEPTA conservatively calculates that a 61% increase in cars will increase freight train occupancy times to 35 minutes, V.S. Judge, **Exhibit A**, ¶ 28, beyond the 30-minute frequency SEPTA is seeking to achieve today, let alone the 15-minute headways anticipated in the future. As SEPTA's Market Analysis has indicated, passengers are highly sensitive to even small changes in frequency or timing. *See id.* ¶ 13. The potential impacts to SEPTA's rail service will therefore require SEPTA to alter dispatching to require freight trains to move completely outside of the times its passenger trains run to protect its schedule, as permitted under its Trackage Rights Agreement.

The impacts of longer trains are not limited to delays in trains. While NTC has a tunnel beneath the tracks, allowing passengers to change platforms without using an at-grade crossing, there is an at-grade crossing at Ford Street, approximately 3,000 feet south of the station, which both SEPTA and NS trains cross on separate tracks. *Id.* ¶ 29. Longer freight trains would keep the

crossing gates down for longer periods, making access to the south side of the tracks more difficult. *Id*.

Allowing longer freight trains to delay SEPTA trains, disrupt passenger schedules, and impede future plans for expansion of passenger rail service is inconsistent with SEPTA's contractual rights under the Trackage Rights Agreement, which provides preference for passenger trains and prohibits increases in freight traffic unreasonably interfering with existing or planned service. Trackage Rights Agreement, Section 3.01(b), (c).

V. APPLICANTS' LONGER TRAINS ALONG THE SHARED SEGMENT WILL REQUIRE MEASURES TO MITIGATE THE HARM THEY CAUSE

Given the increased conflicts that the merger will bring to an already constrained segment, the remedy to the freight conflict is clear: longer freight trains need to be separated from passenger rail trains on the Shared Segment. In the shorter term, it may be sufficient for this separation to be achieved through limiting longer freight trains to times that are not disruptive of passenger service. In the longer term, as SEPTA undertakes its expansion plans, capital projects achieving physical separation must be pursued to enable higher freight volumes without interfering with a critical passenger corridor.

In the short term, longer freight trains on the Shared Segment could be accommodated by restricting their operation to times outside of passenger rail operations, i.e. after midnight and before 5:00 a.m. This approximately five hour window provides sufficient time for Applicants to move their trains through the Shared Segment, even accounting for the night-time maintenance SEPTA normally performs. V.S. Tierney, **Exhibit B**, ¶ 11. SEPTA is a 24/7 operation, and our operations control center is staffed accordingly. *Id.* ¶ 4. SEPTA is building out more consistent

service across the entire day, since travel trends have changed how people take trips and demand is less peak-oriented than it used to be. *Id.* ¶ 12. Moving freight to midday is not a workable alternative, because those trains could not be accommodated without affecting passenger service. *Id.* SEPTA's ownership of NOR and its Trackage Rights Agreement with NS already grants its control over dispatching and the right to schedule and dispatch in a manner that prioritizes its passenger trains. *See* Trackage Rights Agreement, **Exhibit H**, Section 3.01.

In the longer term, in order for the Applicants' merger benefits to become fully realized without compromising SEPTA's passenger service, physical separation of freight and passenger rail is the only feasible option. Physical separation would protect SEPTA's ability to expand service while allowing Applications flexibility to run trains when they like. SEPTA and its partners have determined that physical separation could be achieved by constructing an elevated structure or some other alternative for SEPTA trains to allow Applicants' freight trains to cross SEPTA's Shared Segment corridor underneath. NS itself has voiced support for physical separation of freight and passenger trains along NOR, providing a letter of support for SEPTA's FY22 Consolidated Rail Infrastructure and Safety Improvements Grant Application. *See* Norfolk Southern CRISI Grant Letter of Support (2022), attached as **Exhibit I**. Indeed, physical separation would benefit Applicants and enable the merger to achieve its intended benefits.

Without physical separation, Applicants' merger creates new potential for conflict now and in the future. Applicants' merger makes physical separation a problem that stakeholders must address now, and the burden that it puts on SEPTA's passenger rail on SEPTA's line should be borne by Applicants.

VI. APPLICANTS IGNORE THE PREDICTABLE IMPACT ALONG THE SHARED SEGMENT AND FAIL TO PRESENT ANY SOLUTIONS TO THE HARM CREATED BY THEIR MERGER

Although the harm of proposing longer trains to run through the Shared Segment is clear, as are measures to mitigate this harm, Applicants have failed to even acknowledge a constraint-let alone offer a plan or proposal to address it, in contravention of the Board's regulations requiring the Applicants to do so.

Applicants acknowledge that they "[have] operating rights over certain rail lines owned by other passenger rail providers—including . . . SEPTA (trackage rights)" in their Service Assurance Plan, UP-39/NS/37, 2-1057,[6] but say little else and do not explain that one of its marquee transcontinental routes will operate over SEPTA track that is actively used for SEPTA's Regional Rail passenger rail service. Notably, Applicants omit SEPTA completely from its passenger benchmarking, preventing any assessment of impacts on the Shared Segment under the Service Assurance Plan regarding the negative impact that Applicants' longer freight trains will have on SEPTA's passenger rail service. *See* Second Errata Electronic Appendix Y. Omitting benchmarking data in the context of predicted significantly longer trains undermines the Service Assurance Plan's objective of "identif[ying] the precise steps taken to ensure adequate service and provide for improved service" and "identify potential infrastructure impediments . . . formulate solutions to those impediments, and develop time frames for resolution." 49 C.F.R. §§ 1180.10, (d). The general lack of discussion of conflicts on NOR along the Shared Segment completely fails to demonstrate how Applicants will minimize negative impacts or facilitate passenger service. *Id.*

[6] Applicants also note dispatching protocols with SEPTA, UP-39/NS-37, 2-1066.

§ 1180.10(b). Nor do Applicants accurately identify the Shared Segment as a potential infrastructure impediment, even though conflict with passenger trains and SEPTA's contractual rights have the potential to limit available capacity or delay freight service in order to prioritize highly time-sensitive passenger rail service.

VII. THE BOARD SHOULD IMPOSE AS CONDITIONS REASONABLE MEASURES NECESSARY TO MITIGATE THE MERGER'S HARM TO SEPTA'S PASSENGER RAIL SERVICE

Avoiding the harm that Applicants' longer freight trains pose to SEPTA's service on the Shared Segment requires the Board to act. The Board must act because it has an obligation to protect essential passenger rail service, which will also preserve the purported benefits of Applicants' new transcontinental route. The necessary action requires the Board to impose the following conditions:

- Applicants must acknowledge the continued applicability and binding effect of NS's existing contractual obligations, including SEPTA's right to schedule and move passenger trains with preference over all other train scheduling and movements on the Shared Segment, both now and in the future.
- Until physical separation of freight and passenger rail service on the Shared Segment is achieved, Applicants shall not contest SEPTA's contractual right and ability to establish time-bound separation of freight rail traffic from passenger traffic, and to require Applicants to operate freight trains exceeding the base train length exclusively between the freight operating window of 12:30 a.m. and 5:00 a.m.

- Applicants shall agree with SEPTA to fund capital improvements creating complete physical separation of freight and passenger rail service on the Shared Track to accommodate longer merger trains, pursuant to a schedule and conditions negotiated in good faith between Applicants and SEPTA. Applicants shall cooperate fully and in good faith with SEPTA in pursuing and implementing capital improvements.
- Applicants shall maintain a dedicated passenger rail liaison with SEPTA to implement the above measures and facilitate coordination of operations on the Shared Segment.
- The Board shall impose oversight of the merger as it relates to the Shared Segment for the time necessary to implement the above conditions.

These measures are reasonable and necessary to avoid pushing the costs of Applicants' merger onto passenger rail operators and the public at large.

VIII. CONCLUSION

For the foregoing reasons, SEPTA respectfully submits this Comment and requests the Board impose the relief requested and any other relief the Board sees fit.

Respectfully submitted,



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Counsel for Southeastern Pennsylvania Transportation Authority

Dated: November 18, 2026

CERTIFICATE OF SERVICE

I hereby certify that I have this 18th day of November 2026, served copies of this Comment by first-class mail or email on all parties of record in this proceeding, the Secretary of Transportation, the Attorney General of the United States, and Administrative Law Judge Jenifer Soulikias.



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Exhibit A
Verified Statement of Ryan Judge

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN COMPANY

VERIFIED STATEMENT OF RYAN JUDGE

I. Introduction and Background

1. My name is Ryan Judge and I serve as Chief Planning Officer at Southeastern Pennsylvania Transportation Authority ("SEPTA"). In this role, I coordinate strategic planning activities for SEPTA, including modernization, service planning, and station-area planning studies. I led the development of SEPTA's most recent five-year strategic plan and Accelerate, SEPTA's long term vision for the future of public transit in southeastern Pennsylvania. I am also responsible for leading critical service transformation efforts, including implementation of the New Bus Network and the Regional Rail Master Plan. I was named to Mass Transit Magazine's 40 Under 40 in 2026 and Emerging Planner of the Year by the Pennsylvania Chapter of the American Planning Association in 2017. My resumé is attached to this Verified Statement.
2. I make this Verified Statement based on my personal knowledge and familiarity with the records and documentation at my employer, SEPTA.

II. SEPTA's Regional Rail Service

A. SEPTA's Regional Rail Service and the Norristown Branch

3. SEPTA is the regional transportation authority for the Greater Philadelphia area. SEPTA is the fifth busiest commuter rail system in the country in size, handling approximately 90,000 passengers per day (October 2026). SEPTA operates Regional Rail, its regional "commuter" rail passenger service, along with bus and metro rail services. Regional Rail provides rail service over thirteen lines to over 150 stations in and around Philadelphia, including portions of New Jersey and Delaware.

4. SEPTA's Norristown Branch ("NOR"), one of SEPTA's 13 Regional Rail lines, operates between downtown Philadelphia and Norristown in Montgomery County, PA, approximately 18 miles to the northwest. A map depicting NOR in the context of SEPTA's system is attached as **Exhibit C** to SEPTA's comment.

5. In Norristown, NOR serves the Norristown Transit Center ("NTC"), a major transit center that connects passengers between NOR and SEPTA's M light metro line and more than half a dozen bus routes.

B. SEPTA's Market Analysis Makes the Case for Increasing Frequency on NOR

6. SEPTA conducts market analysis to understand how it can improve ridership and make planning decisions. In 2025, SEPTA conducted a Regional Rail Addressable Market Analysis ("Market Analysis"), which studied the potential catchment of people that could take Regional Rail, including NOR. Relevant excerpts of the Market Analysis are attached to SEPTA's comment at **Exhibit E**.

7. SEPTA's Market Analysis identified that NOR serves one of Regional Rail's strongest all-day commute markets. The Market Analysis indicated that travel demand on the NOR corridor in

particular remains robust throughout the day and is no longer concentrated solely in traditional peak commuting periods. Addressable market demand on the line is generally 7,000 trips or more per hour, comparable to demand levels on the Paoli/Thorndale Line, which currently benefits from more frequent service.

8. The Market Analysis further concluded that ridership is closely correlated with service availability and identified the NOR Line as a corridor where additional all-day service would be warranted based on existing travel demand, especially to the major regional employment centers of Norristown and Conshohocken. SEPTA captures less than 6% of the potential market on this corridor, short of the >25% that can be expected when all-day frequent service is operated.

C. SEPTA Anticipates and is Planning for High Frequency Ridership on NOR

9. In September, 2026, SEPTA issued a final draft of its Regional Rail Master Plan ("RRMP"), a long-term planning document for its Regional Rail service. The RRMP draft is a culmination of over four years of planning and incorporates extensive engagement with stakeholders, including local communities that SEPTA Regional Rail services. A copy of relevant portions of the RRMP are attached to SEPTA's comment at **Exhibit F**.

10. As part of developing the RRMP, SEPTA conducted travel demand modeling using the regional travel model of Greater Philadelphia's Metropolitan Planning Organization, the Delaware Valley Regional Planning Commission ("DVRPC"). This modeling found that ridership increases most significantly on lines with strong underlying demand and improved frequencies, including NOR.

11. The RRMP also mapped out underlying transit demand, which is the estimated level of transit service that can be sustained based on population density, employment types and density, and

socioeconomic factors. The higher the underlying demand, the more frequent service the area can support and the higher levels of transit ridership that can be expected when new service is introduced.

12. The resulting Network Vision outlined in the RRMP is based on public feedback, historical ridership trends, an evaluation of infrastructure constraints, and forecasted population and employment growth across the region.
13. According to the underlying demand map, NOR underlying transit demand can support all-day, frequent service. This is important, because passengers are highly sensitive to even small changes in frequency or timing.
14. The RRMP evaluated multiple future operating scenarios using DVRPC's Travel Demand Model and found that increased frequency is the single greatest driver of ridership growth.
15. Among SEPTA's Regional Rail lines, NOR exhibited some of the strongest projected ridership gains when service frequency was improved. Under Scenario 2, ridership on the line increased by approximately 73% when frequencies improved from every 30 minutes to every 15 minutes.
16. To obtain increased ridership, SEPTA's long-term service strategy envisions progressively increasing service frequency on NOR. The RRMP anticipates increasing NOR frequency to every 20 minutes starting in 2035 and eventually to 15 minutes all-day in 2045. Frequent, reliable service is therefore not merely a service enhancement but a critical component of SEPTA's adopted regional mobility strategy and a necessary response to documented travel demand in Montgomery County and Northwest Philadelphia.

D. Transportation Alternatives to the NOR Regional Rail Service Are Inadequate

17. While alternative transit options exist between Norristown and Center City Philadelphia, none provide the combination of travel time, reliability, capacity, and regional connectivity offered by the NOR Regional Rail service.

18. Existing transit alternatives for NOR (inbound) currently include the M from NTC southbound to 69th Street Transit Center for connection to the L eastbound to 15th Street/City Hall, which is slower and requires a transfer to reach downtown Philadelphia.

19. In the Summer of 2027, Phase 3 of the New Bus Network will take effect, providing improvements to bus service in Norristown and introducing a SEPTA Go Zone in Montgomery County, which will improve local mobility but will not serve as a substitute for the high-capacity, regional connectivity provided by the NOR Line.

20. Higher frequency and late-night service is crucial to serve major job centers and relieve regional traffic congestion on I-76.

21. Because of the critical transportation option it provides, maintaining and expanding reliable Regional Rail service remains critical to meeting existing and future travel demand along NOR.

III. Applicants' Proposed Increase of Freight Trains on NOR Would Result in Longer Trains SEPTA's Regional Rail Service

A. The Application's Supporting Documents Show That Freight Trains on NOR Will Increase Significantly

22. I have reviewed Applicants Union Pacific Railroad's ("UP") and Norfolk Southern Railway's ("NS") merger application materials as they relate to NOR.

23. Applicants identify the segment of NS-operated rail line passing through Norristown, PA, as the Morrisville Line, Segment Key 10006. UP-39/NS-37, 2-725 to 2-726; Second Errata Electronic Appendices E, M (Row 11) filed September 4, 2026. I have reviewed the materials, including the Surface Transportation Board's GIS map for the merger (available at: https://www.stb.gov/upns-eis-fd36873/maps/) and confirmed that the Morrisville Line overlaps with SEPTA-owned line between the FORD (MP HN16.8) and NORRIS (MP HP18.0) Interlockings that include a segment of NOR (the "Shared Segment").

24. Applicants provide daily train counts, annual cars, and annual gross tons for the Morrisville Line under base, optimal, and growth cases for the merger in electronic appendices supporting their applicants. *See* Second Errata Electronic Appendices E, I, M (Row 11, "10006-MORRISVILLE LINE"). The table below provides the figures contained in Applicants' Electronic Appendices, together with calculated total and percentage changes between base and growth cases. As indicated in the table below, **the base versus growth cases result in a 61% increase in annual cars, while there is no expected increase in daily trains**.

	Total Train Count (daily, excl. local)	**Cars (annual)**
Base case	2.27	57,101
Optimal case	2.27	56,298
Growth case	2.27	92,071
Base vs. Growth	0	**+34,970**
Base vs. Growth %	0%	**+61%**

25. My understanding is that the above figures for optimal and growth cases factor in only "merger-related" trains and exclude local trains.

A. Merger-Related Traffic Will Create New Freight-Passenger Train Conflicts on NOR

26. While the number of freight train movements may remain relatively constant, substantially longer trains will require longer occupancy times through the Shared Segment.

27. Today, a freight movement typically requires approximately 30 minutes of corridor occupancy, consisting of: (a) approximately 20 minutes of advance signal time to line routes and initiate train movement; and (b) approximately 8-10 minutes for the train to pass through and clear the Shared Segment.

28. Given the estimated 61% increase in growth-related cars per train, SEPTA expects a proportional increase in the time required for freight trains to pass through and clear the Shared Segment. Conservatively assuming that the approximately 20 minutes of advance signal time to line routes and initiate train movement does not change, the time for a train that is 60% longer to actively pass through these extents will increase proportionally from a range of 8 to a range of 10 minutes to 12.8 minutes to 16 minutes (an increase of 4.8 minutes to 6 minutes) for a total occupancy of about 35 minutes. This change will thus prevent SEPTA from even guaranteeing 30-minute frequency, let alone future increased frequency.

29. The impacts of longer trains are also not limited to delays in trains. While NTC has a tunnel beneath the tracks, allowing passengers to change platforms without using an at-grade crossing, there is an at-grade crossing at Ford Street, approximately 3,000 feet south of the station, which both SEPTA and NS trains cross on separate tracks. Longer freight trains would keep the crossing gates down for longer periods, making access to the south side of the tracks more difficult.

IV. Temporary time separation followed by full physical separation of freight and passenger operations on NOR is the only way to address the merger's impact

30. To avoid the conflict caused by longer freight trains on NOR along the Shared Segment, freight trains need to be separated so they do not interfere with existing passenger service schedules, let alone the higher frequencies SEPTA plans for the future. In the short term, longer freight trains on the Shared Segment could be accommodated by restricting their operation to times outside of passenger rail operations, i.e. after midnight and before 5:00 a.m. SEPTA's 24/7 dispatching operations can handle nighttime operations, as they already do. Moving freight to midday is not a workable alternative, because SEPTA is building out more consistent service across the entire day, since travel trends have changed how people take trips and demand is less peak-oriented than it used to be.

31. The longer term solution is physical separation of freight and passenger traffic at NOR, to allow the full benefits of Applicants' projected growth to be felt without coming at the expense of SEPTA's plans for passenger rail service growth. SEPTA and NS have already identified physical separation along the Shared Segment as a viable option. Applicants previously submitted a CRISI Grant Application that NS supported. NS's support letter is attached to SEPTA's comment as **Exhibit I**. Applicants' proposed longer trains will create new conflicts and accelerate the need to address future conflicts as SEPTA expands its service on its own line.

V. Conclusion

32. Without mitigation, Applicants' longer freight trains will prevent SEPTA from maintaining its current passenger train schedule for NOR and will make it even more difficult

to implement SEPTA's carefully considered long-term plans of increased frequency to serve local communities and the economy.

33. I, Ryan Judge, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on November 18th, 2026.



Ryan Judge
Chief Planning Officer
Southeastern Pennsylvania Transportation Authority

RYAN T. JUDGE

Transit System Strategy · Service & Network Planning · Organizational Leadership

Philadelphia, PA | 215-407-1430 | rjudge@septa.org

EXECUTIVE PROFILE

Senior transportation executive with 13+ years of experience and progressive leadership at SEPTA, currently serving as Chief Planning Officer. Leads a department of approximately 30 planners and analysts responsible for planning the nation's 6th largest transit system. Architect of SEPTA's most significant planning transformation in a generation — including the Accelerate vision for a best-in-class system, the New Bus Network, the Regional Rail Master Plan, and Trolley Modernization planning. Proven record of building consensus across regional stakeholders; translating long-range vision into funded, executable plans under severe fiscal constraints; and communicating complex planning decisions to executive leadership, elected officials, and the public.

◆ Transit Network Strategy & Long-Range Planning	◆ SEPTA Board & Legislative Engagement
◆ Capital Program Development	◆ Fiscal Constraint Planning & Budget Advocacy
◆ Bus, Metro & Regional Rail Service Planning	◆ Fare Policy & Service Access Innovation
◆ Ridership Forecasting, APC & AI-Based Analytics	◆ Transit-Oriented Communities & Land Use Integration
◆ Multimodal Corridor & Master Planning	◆ Public Engagement & Stakeholder Communication

PROFESSIONAL EXPERIENCE

Chief Planning Officer / Sr. Director, Strategy & Analysis / Manager, Planning / Senior Planner | **SEPTA**

Philadelphia, PA — *Aug 2018 – Present*

Progressive advancement through SEPTA's strategic and long-range planning functions. Service as Interim Assistant General Manager, Planning & Strategy from November 2025 through August 2026.

Strategic Planning & Agency Direction

- Led development of SEPTA's 2027–2031 Strategic Business Plan and Accelerate vision document establishing enterprise direction across capital, service, workforce, and financial dimensions.
- Led development of SEPTA's long-term Regional Rail Service Development Plan and five-year service plan, including simulation modeling and scenario analysis — developed in coordination with the NEC Commission's NEC Connect long-range plan, aligning SEPTA's regional service vision with national corridor priorities.
- Led development of SEPTA Forward, the agency's five-year strategic plan for 2021–2026, coordinating cross-functional internal teams agency-wide and creating a public-facing planning portal (planning.septa.org).
- Leads the group responsible for all ridership reporting for SEPTA, including deployment of automatic passenger counters (laser-based and video/AI-based) and development of ridership forecast methods and customer segmentation models using fare payment media and ridership data.

Capital Programs & Federal Funding

- Successfully led multi-year effort to secure recurring annual flex of regional CMAQ funding to SEPTA — advancing the regional policy and funding framework that resulted in a $25M/year commitment for 13 years, for a total value of $325M in regional transportation funding.
- Oversaw facilities planning in advance of multiple billion-dollar-plus vehicle procurements, including new Market-Frankford Line cars and new Regional Rail fleet — integrating service planning, capacity analysis, and capital sequencing.
- Led development of the Transit Oriented Communities (TOC) program, establishing a framework for transit-supportive land use coordination across SEPTA's network and properties, resulting in a joint development award valued at more than $230 million in revenue to SEPTA.
- Directed management of the Environmental Impact Statement and Record of Decision for King of Prussia (KOP) Rail, compressing a 12-month federal review schedule to 5 months while reducing consultant costs by 10%.
- Led corridor-level master planning including the Keystone Corridor Master Plan, integrating rail service and infrastructure development strategy across multimodal operators.
- Oversees SEPTA's coordination role in a $497M Amtrak-led IIJA-funded Overhead Contact System replacement on the Zoo–Paoli corridor, directing engagement with Amtrak and PennDOT to ensure the project agreement protects SEPTA's $66.7M investment and maximizes the benefit to shared-corridor operations.

Network Modernization & Service Innovation

- Led the planning and analysis phase of SEPTA's first-ever full bus network redesign (Bus Revolution / New Bus Network), encompassing route restructuring, frequency improvements, equity analysis, and network optimization across 125+ routes. New network expands frequent service from 8 to 29 routes every 15 minutes or better — bringing 800,000 additional residents within walking distance of frequent buses.

- Leads planning work for Trolley Modernization, a $5 billion capital program to modernize the nation's largest remaining urban streetcar network, replacing vehicles and stations system-wide to deliver fully accessible, modern service.
- Directed SEPTA's Regional Rail Master Plan — a long-range public planning effort establishing the investment vision for the next generation of regional rail modernization, with community-driven support for 15-minute Metro-style service on seven lines and a vision for more than doubling Regional Rail ridership.
- Led development of SEPTA's transit priority program, growing dedicated bus lane infrastructure from zero to over 5 miles across Philadelphia — working in partnership with City of Philadelphia staff to advance the program through City Council and implement camera-assisted enforcement, including the technical proof-of-concept that made Philadelphia the first U.S. city to deploy automated enforcement cameras on streetcars.

Legislative, Board & Stakeholder Engagement

- Led coordination with state and local elected leaders on major service changes, including outreach strategies for the New Bus Network rollout — building external understanding and support for complex planning decisions.
- Developed communications strategy and supporting analysis positioning SEPTA as one of the nation's most operationally efficient transit systems, building the evidentiary foundation for a broad-based external advocacy coalition during SEPTA's FY2026 fiscal challenge.
- Advanced fare policy changes to improve service access, including eliminating the Zone 1/TransPass distinction to make all Zone 1 stations accessible with a TransPass, and advocating for Zone 2 reclassifications — including Wissahickon and Overbrook stations — to extend transit access for riders with significant bus/rail overlap.

Analytics, Data & Public Engagement

- Directed SEPTA Forward public engagement campaign across all major planning initiatives — engaging 50,000+ community members, hosting 290+ events, and reaching 500,000+ through project webpages. Bus Revolution alone drew 20,000+ participants across 208 in-person and online events.
- Developed interactive ridership tracking dashboards using fare transaction data, APC sensors, and AI-based video analytics for executive-level trend reporting and service planning decisions.
- Organized agency-wide COVID-19 Recovery Planning effort, coordinating six cross-functional teams of 150+ members and authoring the Recovery Plan, Move Better Together.
- Built foundational capability in GIS-driven corridor analysis, ridership forecasting, land use integration, and federal grant alignment supporting network-level capital investment decisions.
- Led internal Real Estate transformation initiative identifying programs valued at $19M+ annually in expense reduction and revenue enhancement, delivered over an eight-week structured sprint.

Senior Planner / Planner / Associate Planner | **Delaware County Planning Department**
Media, PA *March 2014 – August 2018*

- Led countywide open space, trails, and transportation planning — including the County's first Open Space, Recreation, and Greenway Plan since the 1970s — and managed a $10M municipal grant program, the largest in Delaware County history.
- Directed mixed-use design guidelines and transit-supportive zoning ordinance development; led visioning for the 69th Street Upper Darby transit-oriented district.

Landscape Designer | **Barbara Thayer Associates**
Woodbury, NY *March 2013 – February 2014*

- Contributed to major transportation corridor projects across the New York metropolitan region, including the Tappan Zee/Mario Cuomo Bridge and the Manhattan approach to the RFK Bridge.

EDUCATION

Bachelor of Landscape Architecture | The Pennsylvania State University, University Park, PA

BOARD & ADVISORY APPOINTMENTS

Pennsylvania Alternate, Northeast Corridor Commission *Oct 2022 – Present*
Appointed by the Governor of Pennsylvania. Represents Pennsylvania in NEC governance including cost allocation policy, long-range capital planning, and project prioritization across the nation's highest-volume passenger rail corridor.

Non-Voting Member, Delaware Valley Regional Planning Commission (DVRPC) *Nov 2025 – Present*
Represents SEPTA in the region's federally designated metropolitan planning organization, engaging in long-range transportation planning, federal funding allocation, and regional policy development across the nine-county Philadelphia-Camden metropolitan area.

HONORS & RECOGNITION

- Emerging Planner Award — American Planning Association, Pennsylvania Chapter (2017)

Exhibit B
Verified Statement of MaryAnn Tierney

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 36873

UNION PACIFIC CORPORATION AND UNION PACIFIC RAILROAD COMPANY
—CONTROL—
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN COMPANY

VERIFIED STATEMENT OF MARYANN TIERNEY

I. Introduction and Background

1. My name is MaryAnn Tierney and I serve as Chief Officer of the Operations Control Center at Southeastern Pennsylvania Transportation Authority ("SEPTA"). In my role I am responsible for the management of train movement on SEPTA's Regional Rail lines. My resumé is attached to this Verified Statement.

2. I make this Verified Statement based on my personal knowledge and familiarity with the records and documentation at my employer SEPTA.

II. SEPTA's Operation and Dispatching of Regional Rail Service on the Norristown Branch

3. SEPTA Regional Rail is a 13-line commuter-rail network serving Philadelphia and the surrounding counties, with service extending into Delaware and New Jersey. The system operates over 270 train cars to service 770 scheduled SEPTA Regional Rail trains on a typical weekday, transporting approximately 90,000 passengers (October 2026).

4. SEPTA runs dispatching operations 24 hours a day, seven days a week, and our operations control center is staffed accordingly. SEPTA dispatches all of its own trains and coordinates with Amtrak to dispatch trains operating on their territory.
5. SEPTA also dispatched freight trains on SEPTA's system in accordance with established agreements. In a 30-day period between October 6, 2026 and November 4, 2026 SEPTA dispatched 277 freight train movements or an average of 9 per day.
6. SEPTA's Norristown Branch ("NOR") is one of SEPTA's 13 regional rail lines that operates Regional Rail passenger trains between downtown Philadelphia and Norristown in Montgomery County, PA, approximately 18 miles to the northwest. SEPTA operates 53 weekday (26 inbound, 27 outbound) and 38 weekend/holiday trains starting before 6AM and ending after midnight. SEPTA's NOR full day schedule operates essentially on 1-hour headways for trains in each direction during week middays, weekends, and holidays, and more frequent trains, with between 16 and 46 minute headways each way, during the peak weekday commute times from approximately 6AM – 9:30AM and 4PM – 6:30PM. The schedule for each direction is staggered with the other direction. A copy of the NOR schedule is attached as **Exhibit D** to SEPTA's comment.

III. Freight operations over NOR

7. In Norristown, Norfolk Southern Railway Company ("NS") operates on a segment of line that SEPTA owns and dispatches between the NORRIS interlocking at MP 0.0 and the FORD interlocking and signal at MP 16.8 (the "Shared Segment") pursuant to a trackage rights agreement with SEPTA. As defined in the trackage rights agreement, Conrail (now NS) has sole usage over SEPTA's Norristown Branch from NORRIS to KALB Interlockings, while Conrail & SEPTA jointly use the Norristown Branch between MP 3.5 and 17.3, which is 16TH

STREET Interlocking and KALB Interlocking respectively. A copy of the trackage rights agreement with SEPTA-owned property exhibits (excerpted) is attached as **Exhibit H** to SEPTA's comment. SEPTA dispatchers dispatch NS trains on the Shared Segment, which functions as the only link between two NS mainlines, the Harrisburg Line and Morrisville Line, where freight moving west-to-east interchanges with CSX, Conrail, or intermodal transloading to last-mile destinations. The Shared Segment includes a segment of NOR where both NS's freight trains and SEPTA's passenger trains operate between KALB interlocking at MP 17.3 and FORD interlocking at MP16.8, which is within the joint-use segment defined in the trackage rights agreement. A map of NS-SEPTA Norristown Interface is attached as **Exhibit G** to SEPTA's comment.

8. NS trains move from NS track at FORD connecting into SEPTA Track 2, moving through FORD interlocking across the plant to Track 1, then traveling along Track 1 through Norristown Transit Center ("NTC"), then through KALB interlocking and back onto NS territory at NORRIS (in both directions). This maneuver requires crossing or occupying SEPTA's separate northbound and southbound tracks, and results in freight trains occupying track used by SEPTA trains, forcing SEPTA trains to be held until the freight trains pass.
9. SEPTA dispatches approximately 277 freight trains across our territory in a 30-day period. Between October 6, 2026, and November 4, 2026, 277 freight movements occurred, with 127 occurring with the Shared Segment. Forty-two of those freight movements were NS, or an average of 2 per day. NS freight movements range from 1 to 5 per day generally. During a scheduled freight movement, all NOR passenger trains must stop before the interlocking limits or hold at NTC to let freights pass.

10. Typically, a freight window includes 20 minutes of advance signal time to line the route for freight and accelerate the train from a standstill, and 8-10 minutes for a freight train of average length (5,000-7,000 feet in length) to pass through and clear the Shared Segment at 25MPH, for a total of 30 minutes. SEPTA has carefully scheduled its passenger trains around the expected length of time for freight trains to clear SEPTA's track.

IV. Options to Mitigate Longer Merger-Related Trains Through Time Separation

11. Running freight trains during times outside of passenger rail operations, i.e. after midnight and before 5:00 a.m., would provide sufficient time for Applicants to move their trains through the Shared Segment without any interference either for freight or passenger trains. Although overnight is when much of our maintenance and inspection work occurs, and any freight window in those hours would need to be coordinated with that work, this would not present an obstacle.

12. Moving freight midday is not a workable alternative, because those trains could not be accommodated without affecting passenger service. SEPTA is building out more frequent service across the entire day, since travel trends have changed how people take trips and demand is less peak-oriented than it used to be.

13. I, MaryAnn Tierney, declare under penalty of perjury that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on November 17, 2026.

MaryAnn Tierney
Chief Officer, Control Center
Southeastern Pennsylvania Transportation Authority

MARYANN TIERNEY

EXECUTIVE PROFILE

Public-sector executive with more than 25 years of experience leading complex operations, large workforces, organizational transformation, crisis response, infrastructure programs, and intergovernmental initiatives. Currently serves as Chief Officer, Control Center for SEPTA, leading a 24/7 multimodal operational environment and the integration of emergency management, special events, and real-time system coordination. Formerly a member of the federal Senior Executive Service and twice served as FEMA's Senior Career Official with experience leading a 26,500-person workforce, managing multibillion-dollar operating environments, advising Cabinet and White House officials, and translating strategy into disciplined execution. Known for strengthening accountability, developing leaders, improving performance, and bringing calm, decisive leadership to high-consequence environments.

SELECTED EXECUTIVE IMPACT

- **Workforce Leadership**: Rebuilt management accountability and leadership capacity in SEPTA's 24/7 Control Center while previously transforming FEMA Region 3 into the agency's highest-rated workplace for employee satisfaction.
- **SEPTA Transformation**: Restructuring the 24/7 Operations Control Center to establish a more disciplined operating culture.
- **Integrated Operations**: Aligned Emergency Management and Special Events with the Control Center to strengthen the connection between preparedness, incident management, real-time service delivery, and executive decision-making.
- **FIFA 2026 Execution**: Developed the integrated operational framework used for SEPTA's 2026 FIFA World Cup and summer event series, supporting coordinated multimodal service and an average of approximately 25,000 riders per match.
- **Fiscal Stewardship**: Co-led FEMA's Planning, Programming, Budget and Execution framework for an agency managing more than $35 billion annually; separately drove analysis that recovered $237.69 million in unliquidated obligations in FY2023.

PROFESSIONAL EXPERIENCE

Southeastern Pennsylvania Transportation Authority

Chief Officer, Control Center *6/2025-Present*

- Redesigned the Operations Control Center structure to restore clear command hierarchy, strengthen management accountability, clarify mode-specific leadership responsibilities, and establish consistent performance expectations across a complex 24/7 operation.
- Reestablished critical middle-management capacity and strengthened leadership development, employee performance management, qualification standards, and succession readiness.
- Consolidated Emergency Management and Special Events under the Control Center, reducing fragmentation and aligning preparedness, incident-management responsibilities, operational execution, and executive coordination.
- Developed more structured operational reporting, incident-management processes, and performance measures to improve leadership visibility into system conditions and operating performance.
- Led coordination of SEPTA's response to major operational challenges, including the 2025 FRA Emergency Order involving Silverliner IV equipment and historic winter-weather operations in January 2026. Coordinated rail operations, vehicle maintenance, engineering, and safety to manage fleet availability, service impacts and regulatory requirements.
- Directed focused effort to close more than 20 overdue State Safety Oversight and Federal Transit Administration corrective-action items in 2025, eliminating a significant regulatory backlog.
- Designed and implemented an integrated planning framework for the 2026 FIFA World Cup and broader summer event series, aligning service scalability, emergency preparedness, public safety, customer information, interagency coordination, and risk mitigation. Collaborated with SEPTA's Labor Unions on the Plan and operational requirements.
- Provide briefings to SEPTA's Board on planning and operational matters, translating their feedback into operational action.
- Strengthened integration of real-time customer information with Control Center operations to improve the speed and consistency with which service conditions and disruptions are communicated to riders.
- Lead in a highly represented 24/7 workforce environment, working within collective bargaining agreements while addressing staffing, qualification, performance and operational-readiness requirements.

Department of Homeland Security - Federal Emergency Management Agency
Senior Official Performing the Duties of Deputy Administrator *2/2025-5/2025*

- Served as FEMA's senior career official during a period of substantial leadership, workforce, and policy transition; helped lead a diverse 26,500-person national workforce while maintaining continuity of mission and operational capability.
- Advised executive leadership on operational priorities, organizational risk, workforce issues, and implementation of Administration directives; revised Annual Planning Guidance and realigned personnel and financial resources against new priorities.

Department of Homeland Security - Office of the Deputy Secretary
Acting Deputy Secretary *1/2025*

- Provided executive-level guidance to Department and White House leadership on implementation of Presidential priorities and DHS authorities; coordinated across Cabinet departments to translate executive direction into executable operations.

Department of Homeland Security - Federal Emergency Management Agency - Region 3
Regional Administrator *8/2010-5/2025*

- Led FEMA's Mid-Atlantic regional organization across Pennsylvania, Delaware, Maryland, Virginia, West Virginia, and the District of Columbia, with responsibility for disaster operations, preparedness, recovery, mitigation, grants, infrastructure programs, stakeholder engagement, and organizational management.
- Transformed Region 3 into a high-performing, people-centered organization built around clear accountability, leadership development, internal communication, and cross-functional collaboration; Region 3 achieved FEMA's highest employee workplace-satisfaction results.
- Directed analysis of unliquidated obligations that closed 123 awards and recovered $237.69 million in FY2023, a 1,656 percent increase in de-obligations over FY2022.
- Co-led development of FEMA's agency-wide Planning, Programming, Budget and Execution framework for an organization managing more than $35 billion annually, connecting strategic priorities with resource and workforce decisions.
- Led a Congressionally mandated review of FEMA regional-office structure and responsibilities, improving headquarters-region role clarity, policy and budget integration, and consistency of service delivery.
- Built coalitions across federal, state, and local governments to solve complex regional problems, including persistent flooding in Philadelphia's Eastwick neighborhood and a roughly $140 million post-flood school-reconstruction challenge.

Department of Homeland Security - Federal Emergency Management Agency
National Incident Management Assistance Team – Gold Team Lead *12/2017-5/2025*

Led one of FEMA's national incident-management teams, deploying to complex disasters and national-level operations requiring rapid integration of federal, state, local, and nongovernmental capabilities.

- Hurricane Helene, North Carolina: led federal operations supporting Buncombe County and Asheville; enabled 75,000 Individual Assistance registrations, more than $75 million in survivor aid within 30 days, and $47 million in expedited Public Assistance.
- Hurricane Ian, Florida: coordinated federal operations in Lee County; enabled 150,000 Individual Assistance registrations and $172 million in approved assistance within 15 days while supporting missing-person reconciliation and recovery operations.
- Southwest Border: reorganized a multi-agency coordination structure and used operational data to reduce bottlenecks, increasing overall system processing capacity by approximately 38 percent.
- Unaccompanied Children Response: led a whole-of-government effort that reduced average custody time from 106 hours to 25 hours in 45 days and reduced children in Border Patrol custody from more than 5,500 to fewer than 800.

Department of Homeland Security - Federal Emergency Management Agency
Acting Deputy Administrator *1/2021-7/2021*

- Aligned FEMA's Senior Executive Corps around agency priorities and strategic-plan execution; established executive governance structures and resolved persistent workforce issues, including a position-classification backlog using simplified processes, a 21-day resolution target, and management dashboards.

MARYANN TIERNEY

Department of Homeland Security - Federal Emergency Management Agency - Mission Support Bureau
Associate Administrator (Acting) *3/2017-6/2017*

- Strengthened executive coordination and financial controls to correct a $6.8 million salaries-and-benefits deficit, resulting in a $4.6 million surplus within 90 days; developed an agency-wide employee communications strategy.

Department of Homeland Security - Federal Emergency Management Agency - Region II
Acting Regional Administrator *1/2013-11/2013*

- Reestablished organizational priorities and operating discipline following Hurricane Sandy across New York, New Jersey, Puerto Rico, and the U.S. Virgin Islands; created dashboards to improve workload visibility and rebuilt key senior-level relationships.

Department of Homeland Security - Federal Emergency Management Agency
Deputy Federal Coordinating Officer *11/2012*

- Led development and rollout of the Shelter and Temporary Essential Power program in New York City, enabling accelerated private-sector home repairs and earlier return of residents from shelters.

City of Philadelphia - Office of the Managing Director
Deputy Managing Director for Emergency Management *11/2006-8/2010*

- Built and led Philadelphia's emergency-management organization, expanding staff from 6 to 20, establishing a permanent 24/7 Operations Division, and implementing a multi-year preparedness strategy.
- Developed Philadelphia's first comprehensive evacuation plan, including strategies for 250+ high-rise buildings, sports venues, and cross-border coordination with New Jersey.
- Built ReadyNotifyPA, then the nation's largest multicounty public-warning system, in partnership with five southeastern Pennsylvania counties; launched Ready Philadelphia and expanded accessible public communications.
- Secured more than $3 million in grant funding, protected core investments through three citywide budget reductions, and modernized emergency laws and mutual-aid arrangements.

New York City Office of Emergency Management 07/1999-11/2006
Progressive Leadership Roles - Assistant Commissioner for Planning & Preparedness | Director, Plan Management | Director, Recovery & Mitigation | Project Manager | Planner

- Led a comprehensive redesign of New York City's emergency-planning framework, including revision of the Coastal Storm Plan, more operationally usable evacuation and shelter strategies, and the City's first emergency-resource inventory system.
- Managed and coordinated Emergency Operations Center activities during major emergencies and planned events including the September 11 attacks, the Northeast Blackout of 2003, the 2004 Republican National Convention, and the 2005 Transit Strike.

EDUCATION & EXECUTIVE DEVELOPMENT

New York University
Master of Public Administration – Public & Nonprofit Management

American University
Bachelor of Arts – Political Science

Naval Postgraduate School
Center for Homeland Defense and Security
Executive Leaders Program Certificate

National Defense University
Capstone Fellow | Pinnacle Fellow

Air University
Joint Flag Officer Warfighting Course

SELECTED HONORS & AWARDS

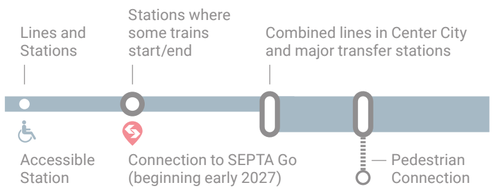
- Presidential Rank Award, Distinguished Rank — 2022
- Secretary's Meritorious Service Silver Medal, U.S. Department of Homeland Security — 2023
- Outstanding Service Medal, U.S. Department of Homeland Security — 2021
- Secretary's Award for Team Excellence, U.S. Department of Homeland Security — 2022

Exhibit C
Map of NOR Near Norristown Within SEPTA Territory

Regional Rail

SEPTA

SEPTA Regional Rail



AIR	Airport Line
CHE	Chestnut Hill East Line
CHW	Chestnut Hill West Line
CYN	Cynwyd Line
FOX	Fox Chase Line
LAN	Lansdale/Doylestown Line
MED	Media/Wawa Line
NOR	Manayunk/Norristown Line
PAO	Paoli/Thorndale Line
TRE	Trenton Line
WAR	Warminster Line
WIL	Wilmington/Newark Line
WTR	West Trenton Line

*Not all trains serve all stations (including major transfer stations). In Center City Philadelphia, many trains arrive via one line, then continue through to another line. Individual line schedules, available at **SEPTA.org**, show how each train operates.*

SEPTA METRO

L B T G D M

Lines and major stations (not all stations shown, see SEPTA Metro map)

Connecting Service

Not all stations shown

NJ TRANSIT — Atlantic City Line; Northeast Corridor Line; River LINE

PATCO — Rapid rail transit to Lindenwold, NJ

AMTRAK — Intercity rail service

Doylestown
Delaware Valley University
New Britain
Chalfont
Link Belt
Colmar
Fortuna
9th St
Lansdale
Lansdale/Doylestown Line
Pennbrook
North Wales
Gwynedd Valley
Penllyn
Ambler
Fort Washington
Oreland
North Hills
Glenside
LAN
Warminster
Hatboro
Willow Grove
Crestmont
Roslyn
Ardsley
Warminster Line
WAR
West Trenton
Yardley
Woodbourne
Langhorne
Neshaminy Falls
Trevose
Somerton
Forest Hills
Philmont
Bethayres
Meadowbrook
Rydal
Noble
WTR
West Trenton Line
to New York
Trenton Transit Center
Trenton Line
Levittown
Bristol
Croydon
Eddington
Cornwells Heights
Torresdale
Holmesburg Junction
Tacony
Bridesburg
Jenkintown-Wyncote
Elkins Park
Melrose Park
Fern Rock Transit Center
B1 B2 B3
Fox Chase
Fox Chase Line
Ryers
Cheltenham
Lawndale
Olney
FOX
L1
Chestnut Hill East
Gravers
Wyndmoor
Mt. Airy
Sedgwick
Stenton
Washington Ln
Germantown
Wister
Chestnut Hill East Line
CHE
Chestnut Hill West
Highland
St. Martins
Richard Allen Ln
Carpenter
Upsal
Tulpehocken
Chelten Av
Queen Ln
Chestnut Hill West Line
CHW
Norristown Transit Center
Main St
M1
Manayunk/Norristown Line
Elm St
Conshohocken
Spring Mill
Miquon
Ivy Ridge
Manayunk
East Falls
Allegheny
Wissahickon
NOR
Wayne Junction
North Broad
TRE
NJT Atlantic City Line
Pennsauken Transit Center
NJT River Line
Temple University
North Philadelphia
G1
Daylesford
Berwyn
Devon
Strafford
Wayne
St. Davids
Radnor
Villanova
Rosemont
Bryn Mawr
Haverford
Ardmore
Wynnewood
Narberth
Merion
Overbrook
Radnor South
Paoli/Thorndale Line
Paoli
Malvern
Exton
Whitford
Downingtown
Thorndale
to Harrisburg, Pittsburgh
Cynwyd
Bala
Wynnefield Av
Cynwyd Line
CYN
PAO
T1
G1
Gray 30th St Station
Suburban Station
Jefferson Station
M1 L1
D1 D2
COBBS CREEK PARK
T2
Angora
MED
Fernwood-Yeadon
Lansdowne
49th St
T3
T4
T5
WIL
AIR
Penn Medicine
Express Service to NRG Station (Special Events Only)
B1 B2
B2
B3
T
Walter Rand Transit Center
Broadway
PATCO
Lindenwold
to Atlantic City
PHILADELPHIA INTERNATIONAL AIRPORT
Airport Line
Terminals E & F
Terminals C & D
Terminal B
Terminal A
nrg
FDR PARK
STADIUMS
Eastwick
Gladstone
Clifton-Aldan
D2
D1
Primos
Secane
Morton-Rutledge
Swarthmore
Wallingford
Moylan-Rose Valley
Media
Elwyn
Wawa
Media/Wawa Line
Wilmington/Newark Line
Darby
Curtis Park
Sharon Hill
Folcroft
Glenolden
Norwood
Prospect Park
Ridley Park
Crum Lynne
Eddystone
Chester Transit Center
Highland Av
Marcus Hook
Claymont Transit Center
Wilmington
Newark
Churchman's Crossing
to Baltimore, Washington DC
BUCKS COUNTY
MONTGOMERY COUNTY
CHESTER COUNTY
DELAWARE COUNTY
DELAWARE
NEW JERSEY
SOUTH PHILLY
NORTH PHILLY
PENNYPACK PARK
FAIRMOUNT PARK
WISSAHICKON VALLEY PARK
SCHUYLKILL RIVER
DELAWARE RIVER

Introducing our concept Regional Rail map!

We want to make it easier to see different lines, where they stop and how they overlap. We are also highlighting connections between services, including SEPTA Metro, PATCO, NJ Transit and Amtrak.

We'd like your feedback. What do you think? **Scan the QR code or call Customer Service: 215-580-7800**

SEPTA is one of the most extensive, most connected transit systems in North America.
Regional Rail travels throughout Greater Philadelphia. Connect with our other services, too:

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*SEPTA Metro is a family of **frequent, affordable, round-the-clock rail transit services** in Philadelphia, Delaware and Montgomery counties.*

See the SEPTA Metro Map for more details.

SEPTA BUS

*SEPTA offers more than **100 bus routes**, connecting countless destinations in the region. Many routes provide frequent service, with a bus every 15 minutes from 6 AM to 9 PM.*

SEPTA GO

*SEPTA Go is a **flexible, on-demand** service, providing point-to-point rides within designated zones. Use it to connect to SEPTA Metro, Bus and Regional Rail. **Service begins in early 2027.***

Exhibit D
Manyunk/Norristown Line Schedule

Manayunk/ Norristown Line

To/From Center City Philadelphia

Effective October 18, 2026

SEPTA REGIONAL RAIL

- Elm St/Norristown
- Main St/Norristown
- Norristown Transit Center
- Conshohocken
- Spring Mill
- Miquon
- Ivy Ridge
- Manayunk
- Wissahickon
- East Falls
- Allegheny
- North Broad
- Temple University
- Jefferson Station
- Suburban Station
- William H. Gray III 30th St Station
- Penn Medicine Station

Customer Service: **215-580-7800**
TDD/TTY: **215-580-7853**
SEPTA.org

Penn Medicine
800.789.PENN PennMedicine.org

Station Locations & Connecting Services

Elm St/Norristown 793 Markley St	P
Main St/Norristown 305 W. Main St	P 90, 93, 131
Norristown Transit Center Lafayette St & Swede St	P M 90, 93, 96, 97, 98, 99, 131
Conshohocken 10 Washington St	P 95, 97
Spring Mill 98 Station Av (near Hector St)	P
Miquon 1096 River Rd	P
Ivy Ridge 4910 Umbria St	P 61
Manayunk 117 Carson St	61
Wissahickon 5100 Rochelle Av	P 9, 27, 65
East Falls 3610 Midvale Av	P K
Allegheny 3235 N. 22nd St	33, 60
North Broad 2693 N. Broad St	B 4, 16, 54
Temple University 927 W. Berks St	
Jefferson Station Market St between 10th St & 12th St	$ L B3 17, 23, 33, 38, 44, 45, 47, 48, 61 NJ Transit Buses
Suburban Station 16th St & JFK Blvd	$ L B T 2, 4, 16, 17, 27, 31, 32, 33, 38, 44, 48, 124, 125
William H. Gray III 30th St Station 30th St & Market St	$ L T 9, 30, 31, 44, 49, 124, 125, LUCY Amtrak, NJ Transit Atlantic City Line
Penn Medicine Station 3149 Convention Blvd	40, LUCY

Now Arriving: SEPTA's New Bus Network

More frequent service. Simpler routes. Better access, every day. SEPTA is rolling out changes to our bus network that offer more consistent and frequent service, more direct routes and improved connections. Visit **SEPTA.org/bus** for information about the New Bus Network.



P – **Parking available**

$ – **Sales Office** (hours vary, visit **SEPTA.org/stations** for details)

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Mondays through Fridays (Except Major Holidays)

TO CENTER CITY

Fare Zone	Train Number	207	209	2581	2483	213	6215	2583	6217	219	2387	2389	2391	2393	6221	6223	6225	6227	2591	6229	2579	2395	2397	2399	2385	6235	2597
	Stations	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM
3	**Elm St/Norristown** ♿	5:43	6:06	6:40	6:58	7:45	8:01	–	8:40	–	9:18	10:18	11:18	12:18	1:18	2:18	3:18	4:18	–	5:20	–	6:18	7:18	8:18	9:18	10:18	11:08
3	**Main St/Norristown**	5:46	6:08	6:42	7:01	7:47	8:03	–	8:42	–	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	–	5:22	–	6:20	7:20	8:20	9:20	10:20	11:10
3	**Norristown Transit Center**	5:50	6:12	6:46	7:05	7:51	8:07	–	8:46	–	9:24	10:24	11:24	12:24	1:24	2:24	3:24	4:24	4:51	5:26	6:06	6:24	7:24	8:24	9:24	10:24	11:14
3	**Conshohocken** ♿	5:56	6:18	6:51	7:11	7:57	8:13	–	8:52	–	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	4:57	5:32	6:12	6:30	7:30	8:30	9:30	10:30	11:20
3	**Spring Mill** ♿	5:59	6:22	6:54	7:15	8:00	8:17	–	8:55	–	9:34	10:34	11:34	12:34	1:34	2:34	3:34	4:34	5:01	5:36	6:16	6:34	7:34	8:34	9:34	10:34	11:24
2	**Miquon**	6:03	6:25	6:58	7:20	8:04	8:20	8:29	8:59	9:13	9:37	10:37	11:37	12:37	1:37	2:37	3:37	4:37	5:04	5:39	6:19	6:37	7:37	8:37	9:37	10:37	11:27
2	**Ivy Ridge**	6:07	6:29	7:03	7:26	8:08	8:25	8:35	9:03	9:19	9:42	10:42	11:42	12:42	1:42	2:42	3:42	4:42	5:08	5:44	6:24	6:42	7:42	8:42	9:42	10:42	11:32
2	**Manayunk**	6:10	6:32	7:05	7:29	8:12	8:28	8:38	9:07	9:22	9:44	10:44	11:44	12:44	1:44	2:44	3:44	4:44	5:11	5:46	6:26	6:44	7:44	8:44	9:44	10:44	11:34
1	**Wissahickon**	6:13	6:35	7:07	7:32	8:14	8:30	8:41	9:09	9:25	9:47	10:47	11:47	12:47	1:47	2:47	3:47	4:47	5:14	5:49	6:29	6:47	7:47	8:47	9:47	10:47	11:37
1	**East Falls**	6:15	6:37	7:10	7:35	8:17	8:33	8:43	9:12	9:27	9:49	10:49	11:49	12:49	1:49	2:49	3:49	4:49	5:16	5:51	6:31	6:49	7:49	8:49	9:49	10:49	11:39
1	**Allegheny**	6:18	6:40	–	7:38	–	–	8:46	–	9:30	9:52	10:52	11:52	12:52	1:52	2:52	3:52	4:52	5:19	5:54	6:34	6:52	7:52	8:52	9:52	10:52	11:42
1	**North Broad** ♿	6:22	6:44	–	7:42	–	–	8:50	–	9:34	9:56	10:56	11:56	12:56	1:56	2:56	3:56	4:56	5:23	5:58	6:38	6:56	7:56	8:56	9:56	10:56	11:46
C	**Temple University** ♿	6:24	6:46	7:18	7:44	8:26	**D8:41**	8:52	**D9:21**	9:36	**D9:58**	**D10:58**	**D11:58**	**D12:58**	**D1:58**	**D2:58**	**D3:58**	**D4:58**	5:25	**D6:00**	6:40	**D6:58**	**D7:58**	**D8:58**	**D9:58**	**D10:58**	11:48
C	**Jefferson Station** ♿	6:30	6:52	7:24	7:50	8:32	**D8:47**	8:58	**D9:27**	9:42	**D10:04**	**D11:04**	**D12:04**	**D1:04**	**D2:04**	**D3:04**	**D4:04**	**D5:04**	5:31	**D6:06**	6:46	**D7:04**	**D8:04**	**D9:04**	**D10:04**	**D11:04**	11:54
C	**Suburban Station** ♿	6:35	6:57	7:29	7:55	8:37	**D8:52**	9:03	**D9:32**	9:47	**D10:09**	**D11:09**	**D12:09**	**D1:09**	**D2:09**	**D3:09**	**D4:09**	**D5:09**	5:36	**D6:11**	6:51	**D7:09**	**D8:09**	**D9:09**	**D10:09**	**D11:09**	11:59
C	**Gray 30th St Station** ♿	6:40	7:02	7:34	7:59	8:42	8:57	9:08	9:37	9:52	**D10:14**	**D11:14**	**D12:14**	**D1:14**	2:14	3:14	4:14	5:14	5:41	6:16	6:56	**D7:14**	**D8:14**	**D9:14**	**D10:14**	11:14	12:04
C	**Penn Medicine Station** ♿	6:43	7:05	–	8:02	8:45	–	–	–	9:56	10:17	11:17	12:17	1:17	–	–	–	–	–	–	–	7:17	8:17	9:17	10:17	–	–
	(See Destination Codes)	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM
	Train continues to →	**MHK**	**WIL**	**MAL**	**AIR**	**WIL**	–	**MAL**	–	**MHK**	–	–	–	–	–	–	–	–	**MAL**	–	**MAL**	–	–	–	–	–	**MAL**

TO MANAYUNK/NORRISTOWN

Fare Zone	Train Number	6200	278	3280	7284	4286	3282	8280	5288	3212	3214	3216	3218	3220	6222	6242	6224	284	5292	5294	6256	6228	6230	3232	3234	3236	6238	6240
	Stations	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM
C	**Penn Medicine Station** ♿	–	6:09	6:42	–	7:27	7:42	–	–	9:49	10:49	11:49	12:49	1:49	–	–	–	4:16	–	–	–	–	–	7:49	8:49	9:49	–	–
C	**Gray 30th St Station** ♿	5:25	6:12	6:45	7:16	7:30	7:45	8:00	8:42	9:52	10:52	11:52	12:52	1:52	2:52	3:23	3:52	4:19	4:48	5:05	5:34	5:52	6:52	7:52	8:52	9:52	10:52	11:52
C	**Suburban Station** ♿	5:30	6:17	6:50	7:21	7:35	7:50	8:05	8:47	9:57	10:57	11:57	12:57	1:57	2:57	3:28	3:57	4:24	4:53	5:10	5:39	5:57	6:57	7:57	8:57	9:57	10:57	11:57
C	**Jefferson Station** ♿	5:35	6:22	6:55	7:26	7:40	7:55	8:10	8:52	10:02	11:02	12:02	1:02	2:02	3:02	3:33	4:02	4:29	4:58	5:15	5:44	6:02	7:02	8:02	9:02	10:02	11:02	12:02
C	**Temple University** ♿	5:40	6:27	7:00	7:31	7:45	8:00	8:14	8:56	10:06	11:06	12:06	1:06	2:06	3:06	3:37	4:06	4:34	5:02	5:19	5:48	6:06	7:06	8:06	9:06	10:06	11:06	12:06
1	**North Broad** ♿	5:42	6:29	7:02	–	–	8:02	–	8:58	10:08	11:08	12:08	1:08	2:08	3:08	–	4:08	4:36	–	–	5:50	6:08	7:08	8:08	9:08	10:08	11:08	12:08
1	**Allegheny**	5:45	6:32	7:04	–	–	8:06	–	9:00	10:11	11:11	12:11	1:11	2:11	3:11	–	4:11	4:40	–	–	5:54	6:11	7:11	8:11	9:11	10:11	11:11	12:11
1	**East Falls**	5:48	6:35	7:08	**D7:39**	**D7:52**	8:10	**D8:18**	9:02	10:13	11:14	12:14	1:14	2:14	3:13	**D3:43**	4:13	4:43	**D5:09**	**D5:27**	5:57	6:13	7:13	8:14	9:14	10:14	11:13	12:13
1	**Wissahickon**	5:50	6:38	7:11	**D7:41**	**D7:54**	8:13	**D8:21**	9:05	10:16	11:16	12:16	1:16	2:16	3:16	**D3:44**	4:16	4:46	**D5:12**	**D5:29**	5:59	6:16	7:16	8:16	9:16	10:16	11:16	12:16
2	**Manayunk**	5:53	6:41	7:14	**D7:45**	**D7:56**	8:16	**D8:24**	9:08	10:19	11:19	12:19	1:19	2:19	3:19	**D3:47**	4:19	4:49	**D5:15**	**D5:32**	6:02	6:19	7:19	8:19	9:19	10:19	11:19	12:19
2	**Ivy Ridge**	5:55	6:43	7:16	**D7:47**	**D7:58**	8:18	**D8:27**	9:10	10:21	11:21	12:21	1:21	2:21	3:21	**D3:49**	4:21	4:52	**D5:17**	**D5:35**	6:05	6:21	7:21	8:21	9:21	10:21	11:21	12:21
2	**Miquon**	6:00	6:48	7:21	**D7:52**	8:04	8:23	8:34	9:15	10:26	11:26	12:26	1:26	2:26	3:26	**D3:54**	4:26	4:57	**D5:23**	**D5:40**	6:10	6:26	7:26	8:26	9:26	10:26	11:26	12:26
3	**Spring Mill** ♿	**D6:03**	**D6:51**	**D7:24**	**D7:55**	–	**D8:26**	–	**D9:18**	**D10:29**	**D11:29**	**D12:29**	**D1:29**	**D2:29**	**D3:29**	**D3:57**	**D4:29**	**D4:59**	**D5:27**	**D5:43**	**D6:13**	**D6:29**	**D7:29**	**D8:29**	**D9:29**	**D10:29**	**D11:29**	**D12:29**
3	**Conshohocken** ♿	**D6:06**	**D6:53**	**D7:27**	**D7:57**	–	**D8:29**	–	**D9:20**	**D10:32**	**D11:32**	**D12:32**	**D1:32**	**D2:32**	**D3:32**	**D4:00**	**D4:32**	**D5:04**	**D5:30**	**D5:46**	**D6:16**	**D6:32**	**D7:32**	**D8:32**	**D9:32**	**D10:32**	**D11:32**	**D12:32**
3	**Norristown Transit Center**	**D6:14**	**D7:09**	7:36	**D8:09**	–	8:40	–	**D9:30**	**D10:40**	**D11:40**	**D12:40**	**D1:40**	**D2:40**	**D3:40**	4:10	**D4:40**	5:14	**D5:36**	5:56	**D6:26**	**D6:40**	**D7:40**	**D8:40**	**D9:40**	**D10:40**	**D11:40**	**D12:40**
3	**Main St/Norristown**	**D6:18**	**D7:13**	–	**D8:16**	–	–	–	**D9:33**	**D10:45**	**D11:45**	**D12:45**	**D1:45**	**D2:45**	**D3:44**	–	**D4:44**	–	**D5:39**	–	**D6:29**	**D6:44**	**D7:44**	**D8:45**	**D9:45**	**D10:45**	**D11:44**	**D12:44**
3	**Elm St/Norristown** ♿	6:20	7:17	–	8:21	–	–	–	9:39	10:48	11:48	12:48	1:48	2:48	3:50	–	4:50	–	5:45	–	6:33	6:48	7:48	8:48	9:48	10:48	11:48	12:48
		AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM

♿ – **Accessible station**

D – Train stops to discharge or pick up passengers, but may depart ahead of schedule.

Saturdays, Sundays and Major Holidays

TO CENTER CITY

Fare Zone	Train Number	2409	2413	2417	2421	2425	2429	2433	2437	2441	2445	2449	2453	2457	2461	2465	2469	2473	2477	6281
	Stations	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM
3	**Elm St/Norristown** ♿	5:33	6:33	7:33	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	6:33	7:33	8:33	9:33	10:33	11:33
3	**Main St/Norristown**	5:35	6:35	7:35	8:35	9:35	10:35	11:35	12:35	1:35	2:35	3:35	4:35	5:35	6:35	7:35	8:35	9:35	10:35	11:35
3	**Norristown Transit Center**	5:39	6:39	7:39	8:39	9:39	10:39	11:39	12:39	1:39	2:39	3:39	4:39	5:39	6:39	7:39	8:39	9:39	10:39	11:39
3	**Conshohocken** ♿	5:45	6:45	7:45	8:45	9:45	10:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:45	7:45	8:45	9:45	10:45	11:45
3	**Spring Mill** ♿	5:48	6:48	7:48	8:48	9:48	10:48	11:48	12:48	1:48	2:48	3:48	4:48	5:48	6:48	7:48	8:48	9:48	10:48	11:48
2	**Miquon**	5:52	6:52	7:52	8:52	9:52	10:52	11:52	12:52	1:52	2:52	3:52	4:52	5:52	6:52	7:52	8:52	9:52	10:52	11:52
2	**Ivy Ridge**	5:56	6:56	7:56	8:56	9:56	10:56	11:56	12:56	1:56	2:56	3:56	4:56	5:56	6:56	7:56	8:56	9:56	10:56	11:56
2	**Manayunk**	5:58	6:58	7:58	8:58	9:58	10:58	11:58	12:58	1:58	2:58	3:58	4:58	5:58	6:58	7:58	8:58	9:58	10:58	11:58
1	**Wissahickon**	6:01	7:01	8:01	9:01	10:01	11:01	12:01	1:01	2:01	3:01	4:01	5:01	6:01	7:01	8:01	9:01	10:01	11:01	12:01
1	**East Falls**	6:03	7:03	8:03	9:03	10:03	11:03	12:03	1:03	2:03	3:03	4:03	5:03	6:03	7:03	8:03	9:03	10:03	11:03	12:03
1	**Allegheny**	6:08	7:08	8:08	9:08	10:08	11:08	12:08	1:08	2:08	3:08	4:08	5:08	6:08	7:08	8:08	9:08	10:08	11:08	12:08
1	**North Broad** ♿	6:11	7:11	8:11	9:11	10:11	11:11	12:11	1:11	2:11	3:11	4:11	5:11	6:11	7:11	8:11	9:11	10:11	11:11	12:11
C	**Temple University** ♿	6:14	7:14	8:14	9:14	10:14	11:14	12:14	1:14	2:14	3:14	4:14	5:14	6:14	7:14	8:14	9:14	10:14	11:14	**D12:14**
C	**Jefferson Station** ♿	6:20	7:20	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:20	9:20	10:20	11:20	**D12:20**
C	**Suburban Station** ♿	6:25	7:25	8:25	9:25	10:25	11:25	12:25	1:25	2:25	3:25	4:25	5:25	6:25	7:25	8:25	9:25	10:25	11:25	**D12:25**
C	**Gray 30th St Station** ♿	6:30	7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30	7:30	8:30	9:30	10:30	11:30	12:30
C	**Penn Medicine Station** ♿	6:33	7:33	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	6:33	7:33	8:33	9:33	10:33	11:33	–
	(See Destination Codes)	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM
	Train continues to →	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	**AIR**	–

TO MANAYUNK/NORRISTOWN

Fare Zone	Train Number	4204	4208	4212	4216	4220	4224	4228	4232	4236	4240	4244	4248	4252	4256	4260	4264	4268	4272	4276
	Stations	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM
C	**Penn Medicine Station** ♿	5:57	6:57	7:57	8:57	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57	6:57	7:57	8:57	9:57	10:57	11:57
C	**Gray 30th St Station** ♿	6:00	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
C	**Suburban Station** ♿	6:05	7:05	8:05	9:05	10:05	11:05	12:05	1:05	2:05	3:05	4:05	5:05	6:05	7:05	8:05	9:05	10:05	11:05	12:05
C	**Jefferson Station** ♿	6:10	7:10	8:10	9:10	10:10	11:10	12:10	1:10	2:10	3:10	4:10	5:10	6:10	7:10	8:10	9:10	10:10	11:10	12:10
C	**Temple University** ♿	6:15	7:15	8:15	9:15	10:15	11:15	12:15	1:15	2:15	3:15	4:15	5:15	6:15	7:15	8:15	9:15	10:15	11:15	12:15
1	**North Broad** ♿	6:16	7:16	8:16	9:16	10:16	11:16	12:16	1:16	2:16	3:16	4:16	5:16	6:16	7:16	8:16	9:16	10:16	11:16	12:16
1	**Allegheny**	6:20	7:20	8:20	9:20	10:20	11:20	12:20	1:20	2:20	3:20	4:20	5:20	6:20	7:20	8:20	9:20	10:20	11:20	12:20
1	**East Falls**	6:22	7:22	8:22	9:22	10:22	11:22	12:22	1:22	2:22	3:22	4:22	5:22	6:22	7:22	8:22	9:22	10:22	11:22	12:22
1	**Wissahickon**	6:24	7:24	8:24	9:24	10:24	11:24	12:24	1:24	2:24	3:24	4:24	5:24	6:24	7:24	8:24	9:24	10:24	11:24	12:24
2	**Manayunk**	6:26	7:26	8:26	9:26	10:26	11:26	12:26	1:26	2:26	3:26	4:26	5:26	6:26	7:26	8:26	9:26	10:26	11:26	12:26
2	**Ivy Ridge**	6:28	7:28	8:28	9:28	10:28	11:28	12:28	1:28	2:28	3:28	4:28	5:28	6:28	7:28	8:28	9:28	10:28	11:28	12:28
2	**Miquon**	6:33	7:33	8:33	9:33	10:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	6:33	7:33	8:33	9:33	10:33	11:33	12:33
3	**Spring Mill** ♿	**D6:35**	**D7:35**	**D8:35**	**D9:35**	**D10:35**	**D11:35**	**D12:35**	**D1:35**	**D2:35**	**D3:35**	**D4:35**	**D5:35**	**D6:35**	**D7:35**	**D8:35**	**D9:35**	**D10:35**	**D11:35**	**D12:35**
3	**Conshohocken** ♿	**D6:39**	**D7:39**	**D8:39**	**D9:39**	**D10:39**	**D11:39**	**D12:39**	**D1:39**	**D2:39**	**D3:39**	**D4:39**	**D5:39**	**D6:39**	**D7:39**	**D8:39**	**D9:39**	**D10:39**	**D11:39**	**D12:39**
3	**Norristown Transit Center**	**D6:49**	**D7:49**	**D8:49**	**D9:49**	**D10:49**	**D11:49**	**D12:49**	**D1:49**	**D2:49**	**D3:49**	**D4:49**	**D5:49**	**D6:49**	**D7:49**	**D8:49**	**D9:49**	**D10:49**	**D11:49**	**D12:49**
3	**Main St/Norristown**	**D6:52**	**D7:52**	**D8:52**	**D9:52**	**D10:52**	11:52	**D12:52**	**D1:52**	**D2:52**	**D3:52**	4:52	5:52	6:52	**D7:52**	**D8:52**	**D9:52**	**D10:52**	**D11:52**	**D12:52**
3	**Elm St/Norristown** ♿	6:57	7:57	8:57	9:57	10:57	11:57	12:57	1:57	2:57	3:57	4:57	5:57	6:57	7:57	8:57	9:57	10:57	11:57	12:57
		AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM

♿ – **Accessible station**

D – Train stops to discharge or pick up passengers, but may depart ahead of schedule.

Travel Tips

Schedule Times: Indicate when trains depart the station.

Fare Payment Options: Contactless, SEPTA Key, Quick Trip Ticket, or cash. Visit **SEPTA.org/fares** for more information.

QuietRide Car: The first car on all weekday trains with 3 or more cars open for passenger service. Available Monday–Friday, 4:00 AM–7:00 PM.

Regional Rail Major Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day (Special Schedule). *Please note: Holidays may be observed on another day.*

Disclaimer: SEPTA does not assume responsibility for inconvenience, experience or damage resulting from errors in timetables, delayed trains, failure to make connections or for shortage of equipment. Information is subject to change.

Severe Weather Schedule: During extreme weather conditions, trains may operate on a special schedule. Visit **SEPTA.org/alerts** for more information.

Destination Codes

AIR	Airport	**NWK**	Newark, DE
BMR	Bryn Mawr	**THO**	Thorndale
CHW	Chestnut Hill West	**TRE**	Trenton Transit Center
MAL	Malvern	**WAW**	Wawa
MED	Media	**WAY**	Wayne
MHK	Marcus Hook	**WIL**	Wilmington

Bikes & Scooters

Weekday Rush-Hour Restrictions (Except Major Holidays)

	Inbound Arriving Center City	**Outbound** Departing Center City
Mon–Fri Morning Rush 6:00–9:30 AM	🚫🚲	🚲
Mon–Fri Evening Rush 4:00–6:30 PM	🚲	🚫🚲
All Other Times Off-Peak, Weekends, and Major Holidays	🚲	🚲

- Folded bikes and scooters always allowed
- Up to 2 personal vehicles per rail car
- Keep aisles and doors clear
- Follow crew instructions for boarding and space use
- Yield space to passengers with mobility needs
- Turn off personal vehicles before boarding
- No charging allowed on trains or SEPTA property
- Gasoline-powered personal vehicles not permitted

Visit **SEPTA.org/bikes** for more information.

Exhibit E
Regional Rail Addressable Market Analysis (excerpted)

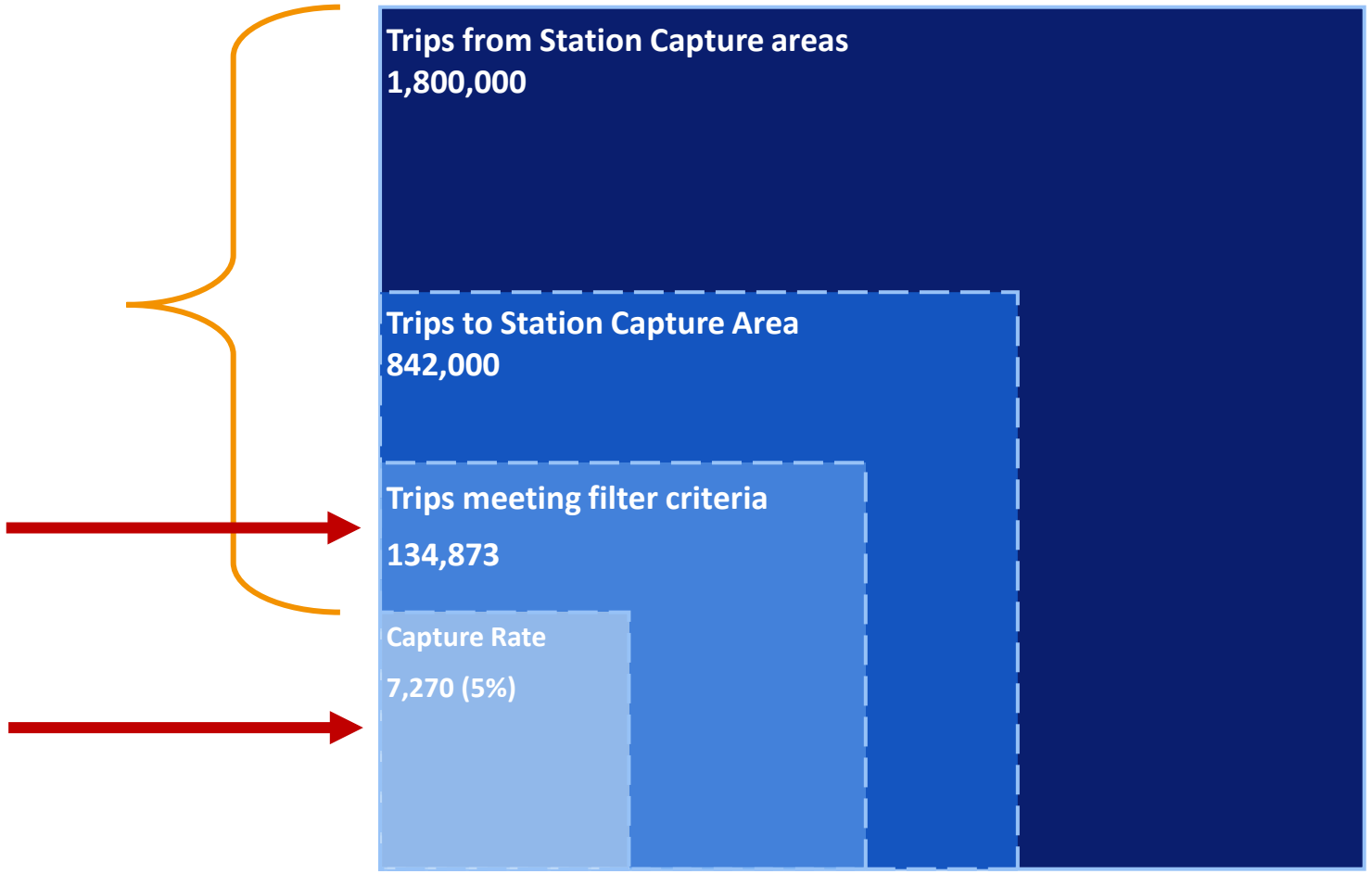
Norristown Line Nested Market Results

Market Assessment

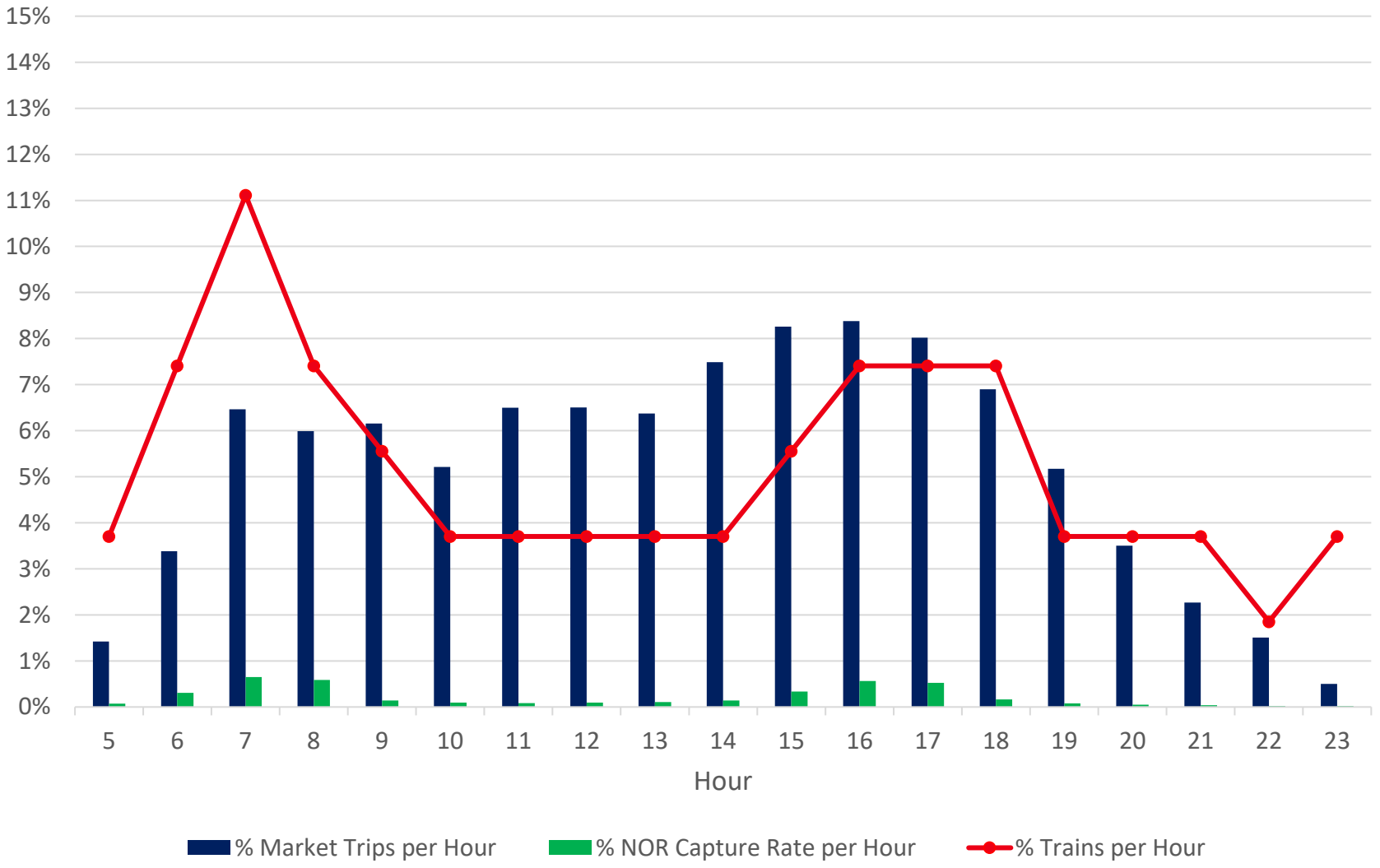
Station Areas
Replica Data Analysis
Process Data
Applied Filters

Addressable Market

Current Ridership (Fall 2024)



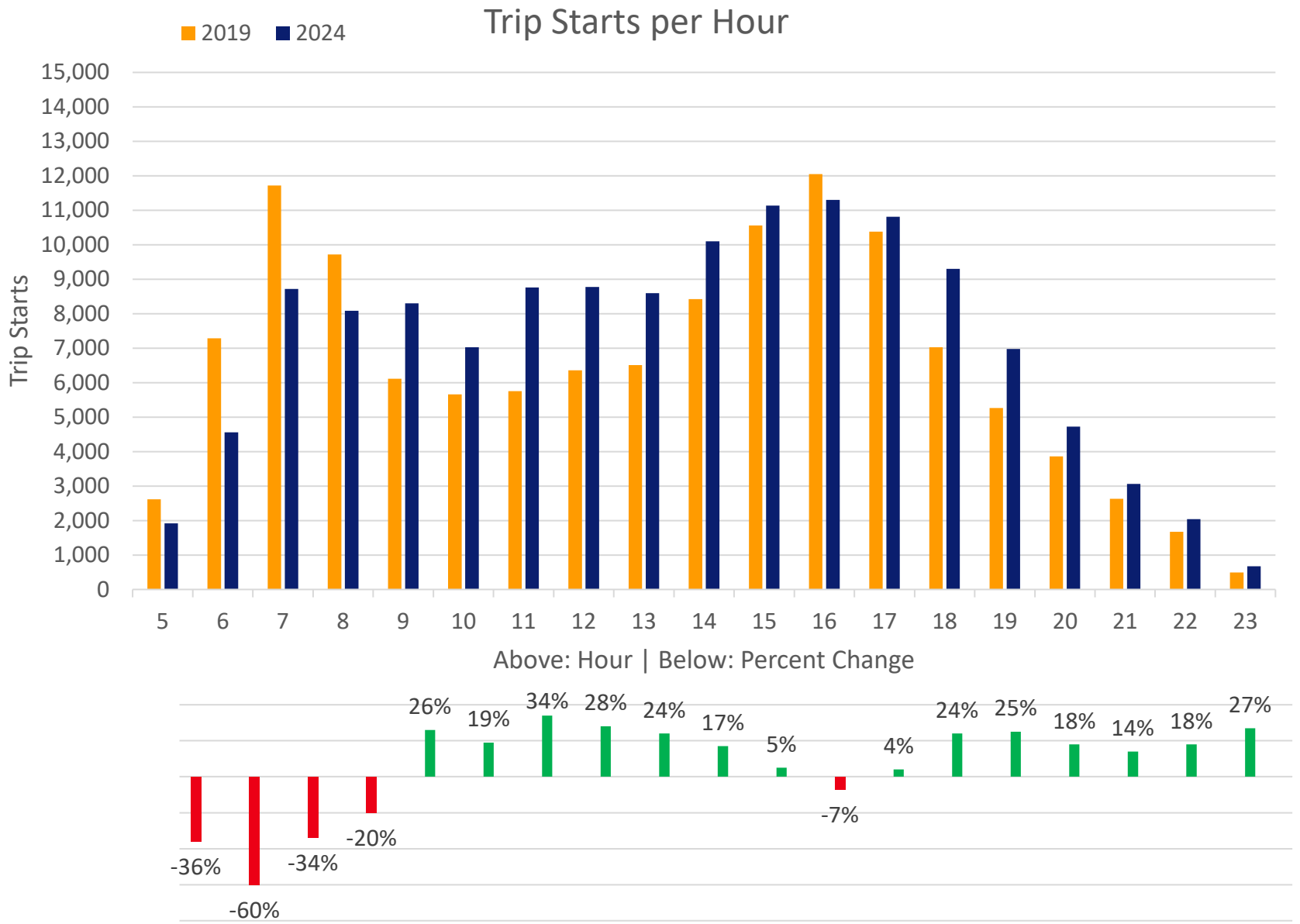
How does the addressable market compare with SEPTA service levels?
NOR 2024 Addressable Market Trip Starts per Hour and 2024 Trains per Hour as a percentage of daily Trip Starts/Trains



Preliminary takeaways:

- Norristown Line service is very morning peak focused
- Norristown Line service proportion is greater than addressable market trip start proportion in the morning peak hours
- Norristown Line service proportion is less than addressable market trip start proportion in the midday hours

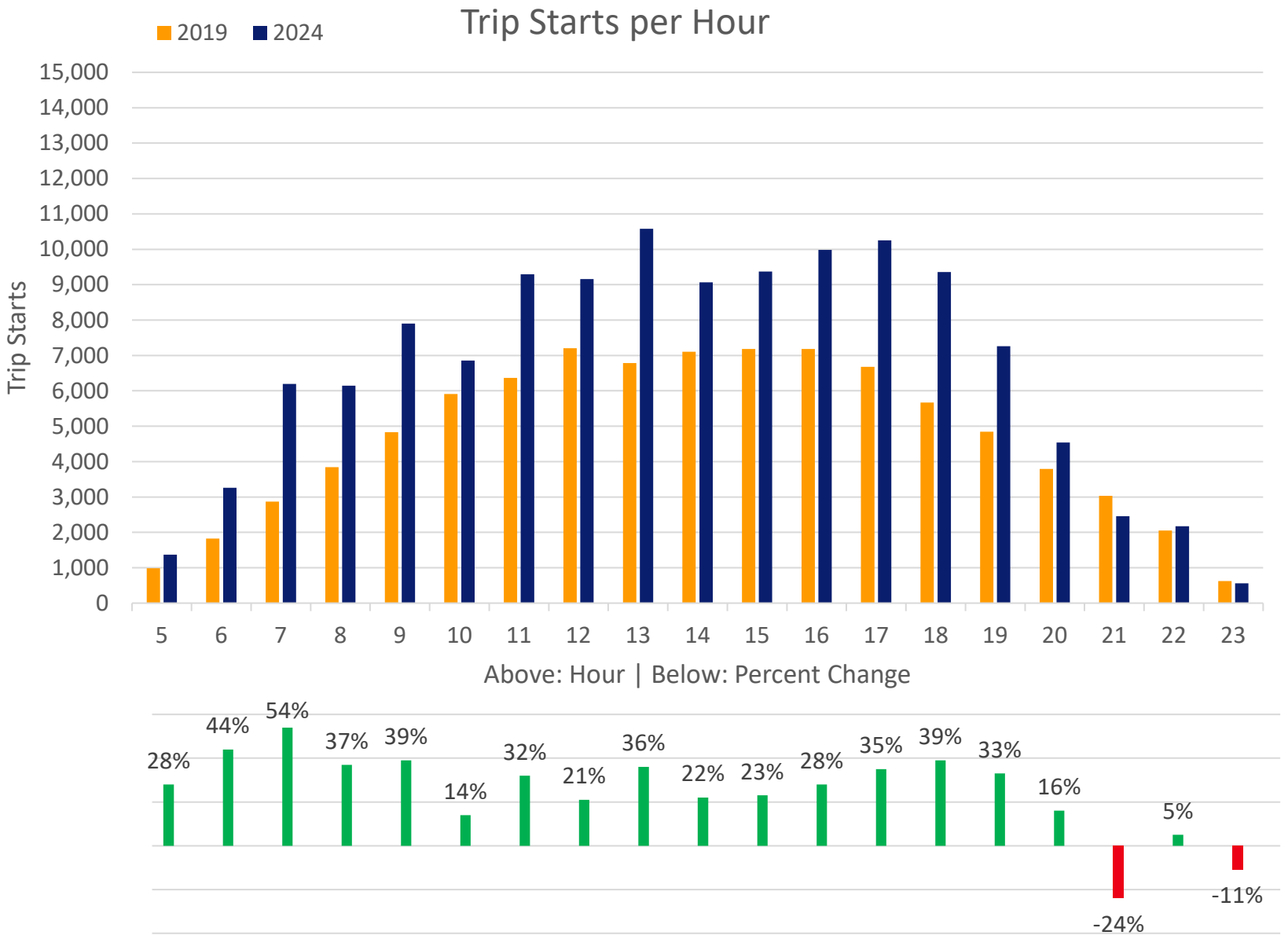
Norristown Line Hourly Addressable Markets – Weekdays 2019 and 2024



Preliminary takeaways:

- The early morning trip starts per hour dropped significantly (-34 to -60%) from 5 to 7 am.
- There were strong increases in the late morning to midday trip starts between 9 am and 3 pm (17-28%), with a significant bump (34%) at 11 am hour.
- There were strong increases in the post-peak evening hours between 6 pm and 8 pm (18-25%).
- *SEPTA could consider adding more service all-day since the addressable market trips are mostly 7,000 or more per hour, which is on par with PAO addressable market trips.*

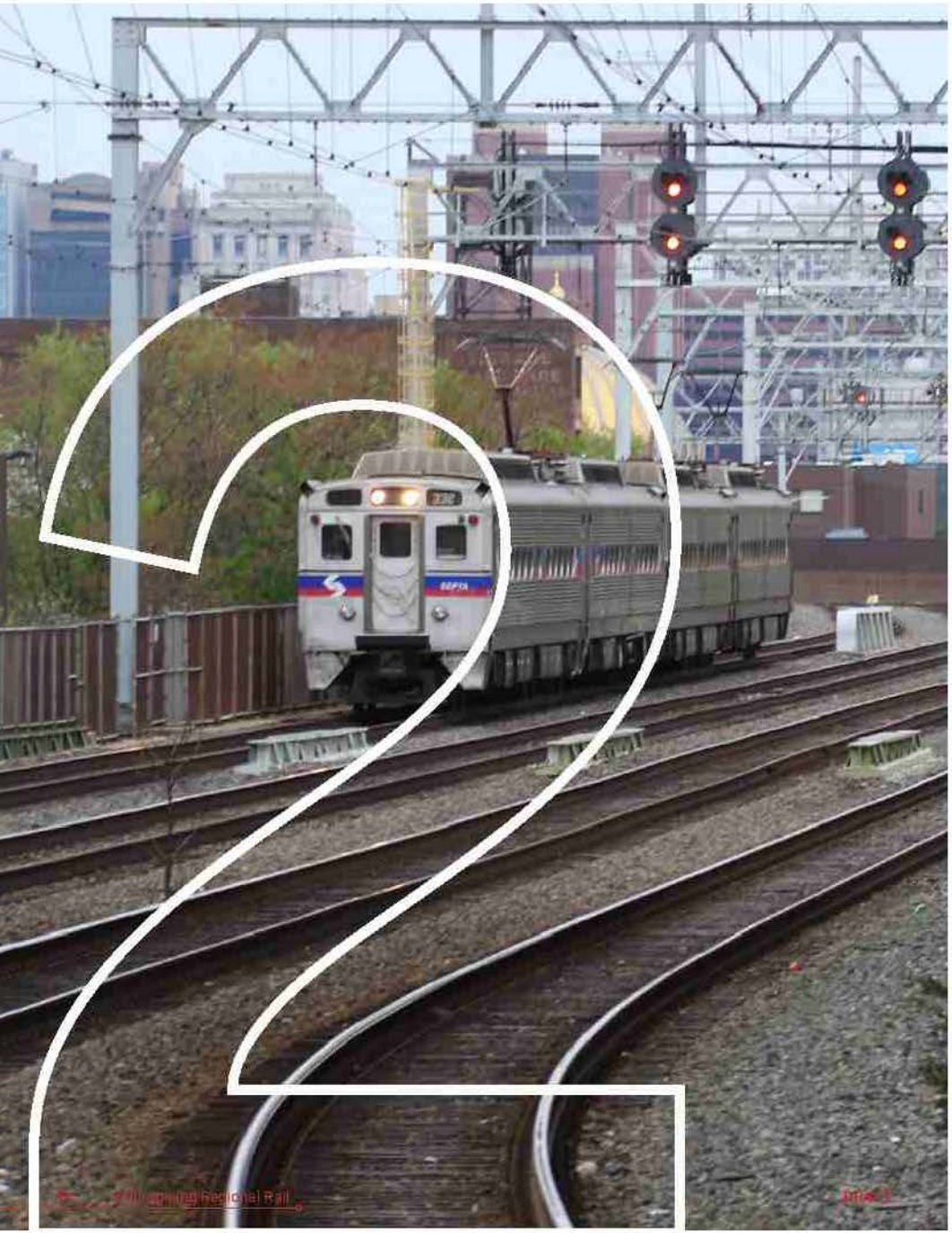
Norristown Line Hourly Addressable Markets – Weekends 2019 and 2024



Preliminary takeaways:

- There were strong (16-33%) to significant increases (35-54%) in trip starts from 5 am until 10 pm.
- *SEPTA could consider adding more service throughout the day on weekends beyond the hourly service currently provided.*

Exhibit F
Regional Rail Master Plan (excerpted)



1 Introduction 1

2 State of the System 14

- History 16
- Infrastructure and Operations 34
- Connectivity 54
- Demand 74

3 Peer Review 84

4 Creating the Vision 106

5 Network Vision 162

6 Phasing 210

7 Implementation Next Steps 280

Reimagining Regional Rail

State of the System

History

Greater Philadelphia's commuter rail network was created through a century of infrastructure investment and mergers.

Regional Rail has been designed to facilitate nine-to-five suburban commuters even though Regional Rail also has stops in low-income minority communities in the urban core.

The Regional Rail network often has parallel bus and trolley routes, but different frequencies and fare structures cause Regional Rail to be isolated from the rest of the SEPTA network.

Infrastructure and Operations

Connectivity

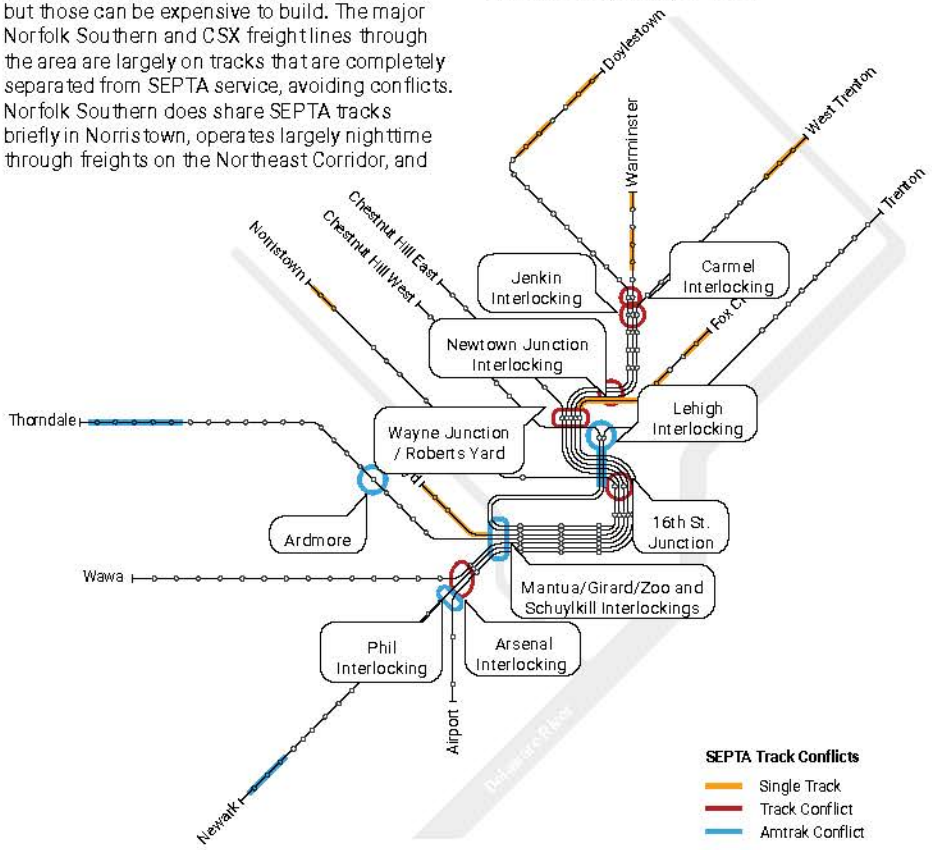
Ridership



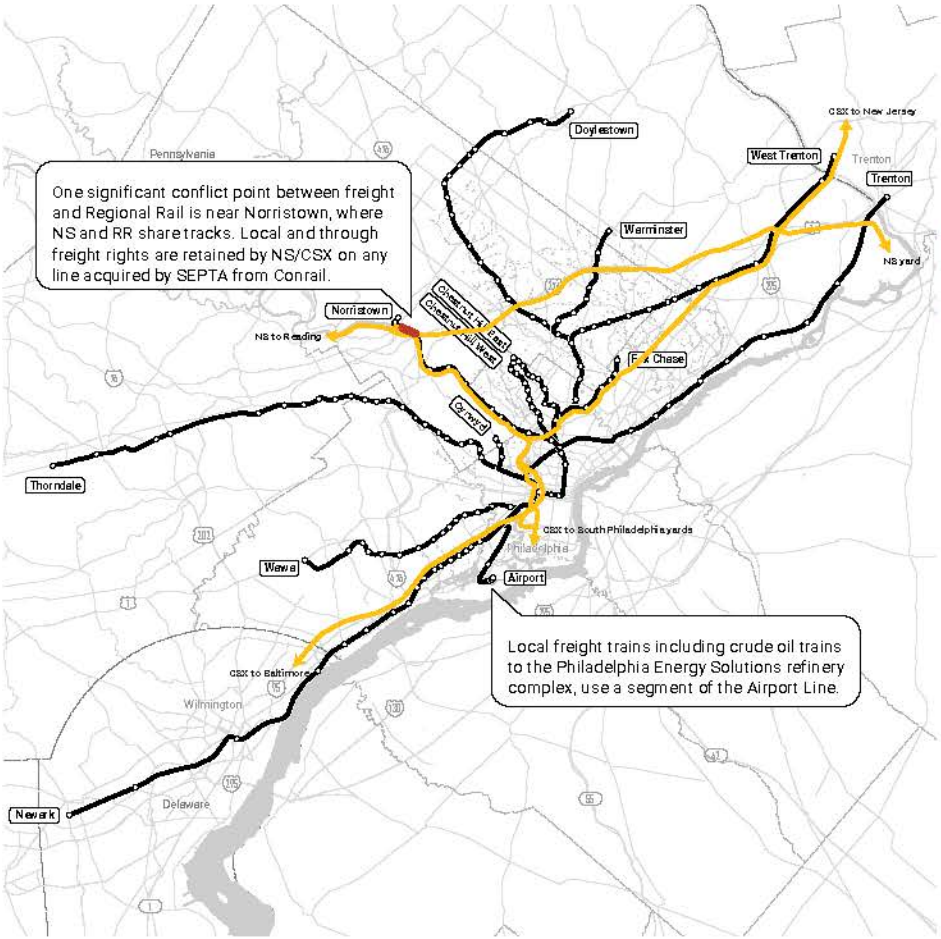
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The current infrastructure has the capacity for significantly more service, especially off-peak, but a few bottlenecks cap the capacity of the entire network.

Although SEPTA has very few overlaps with freight, there are major bottlenecks on the SEPTA Regional Rail network. These are caused by multiple train flows using the same track, or tracks that cross each other at grade. Each of these situations can cause trains to have to wait for other trains. These bottlenecks can be solved with infrastructure improvements, but those can be expensive to build. The major Norfolk Southern and CSX freight lines through the area are largely on tracks that are completely separated from SEPTA service, avoiding conflicts. Norfolk Southern does share SEPTA tracks briefly in Norristown, operates largely nighttime through freights on the Northeast Corridor, and can operate on part of the Thorndale Line. There are additional areas where local freight trains use SEPTA tracks, including oil trains on the Airport line and infrequent local freights on the Doylestown and West Trenton lines. Local and through freight rights are retained by NS/CSX on any line acquired by SEPTA from Conrail, but many of these are never used.



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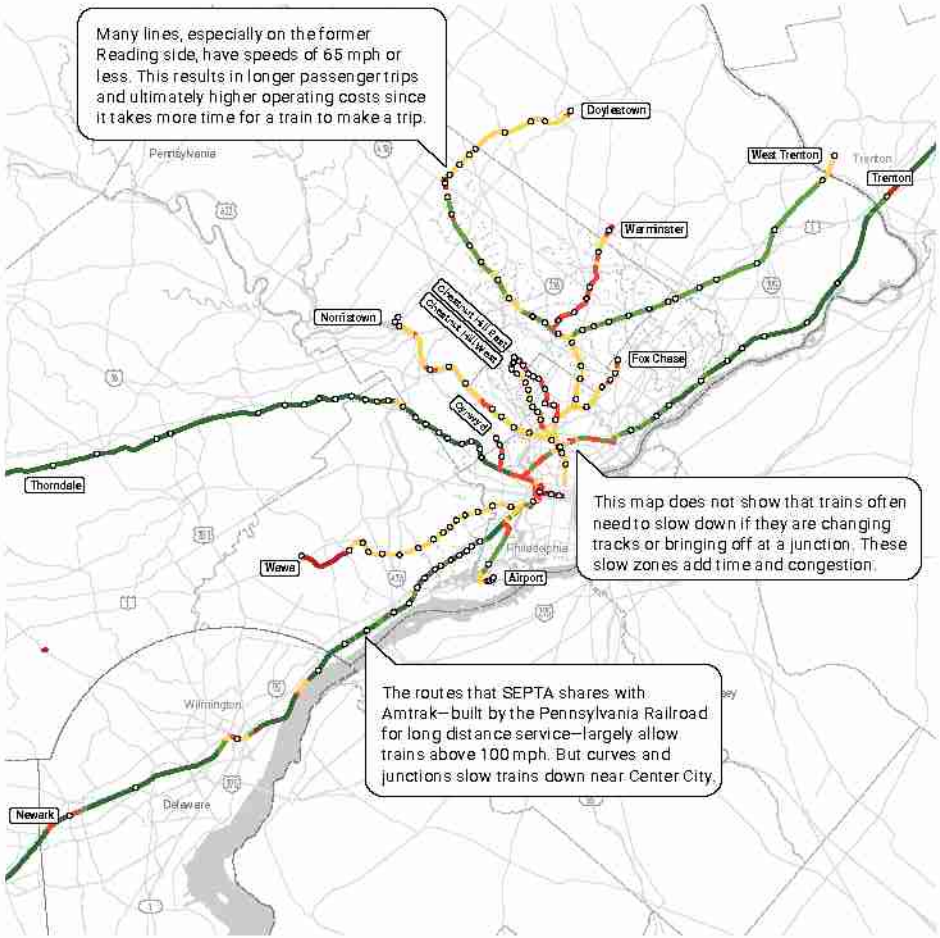


Regional Rail and Area Freight Movement

Major Freight Lines
Shared with Regional Rail

1:500,000
0 5 10 20 miles
FRA

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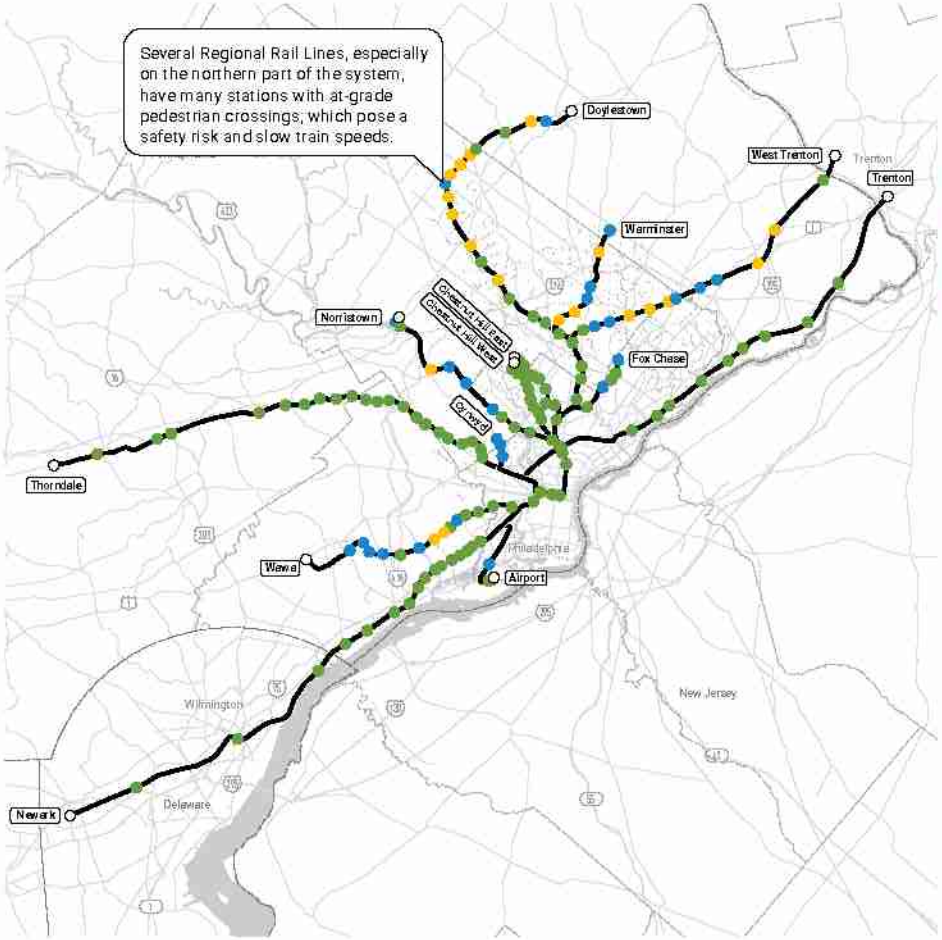
Regional Maximum Rail Speeds

- < 20 mph
- 21 - 40 mph
- 41 - 65 mph
- 66 - 90 mph
- 91 + mph

Data reflects 2021 conditions

1:500,000 OpenStreetMap

0 5 10 20 miles



Station Pedestrian Crossings

Type of crossing:

- At grade pedestrian only crossing at platforms
- At grade road crossing adjacent to station used for pedestrian access
- All pedestrian crossings at station are grade separated, or no crossings exist

1:500,000 SEPTA 2019

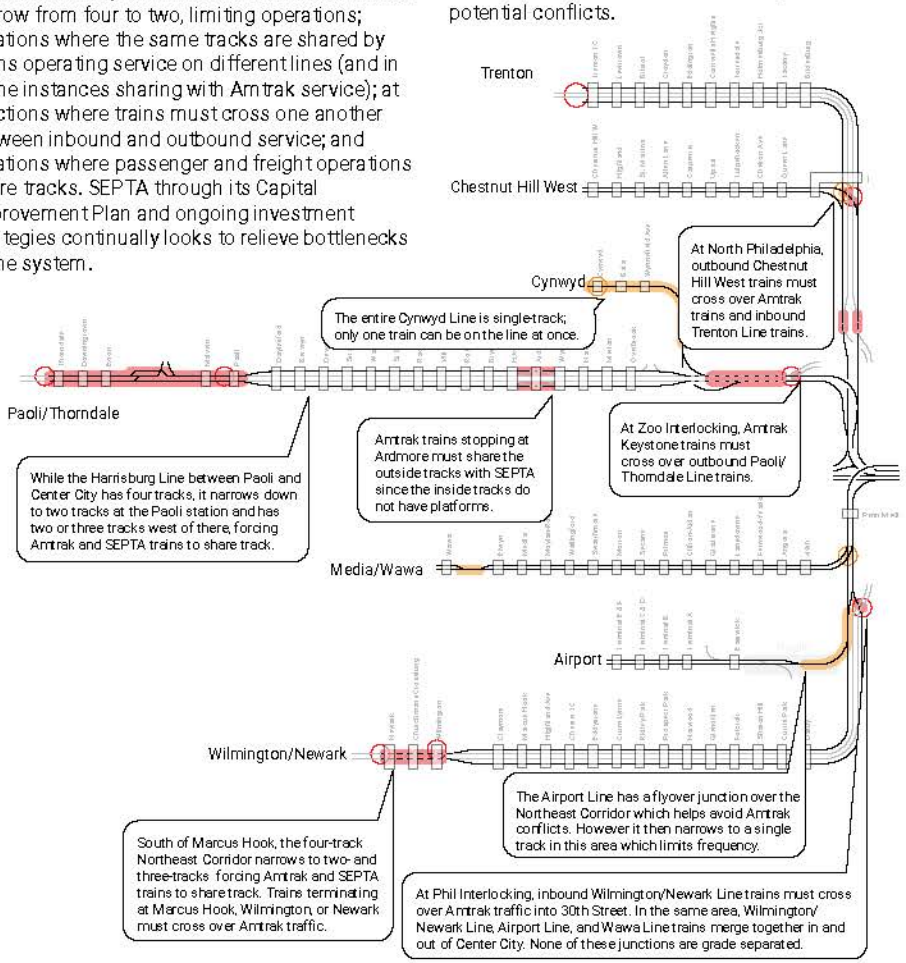
0 5 10 20 miles

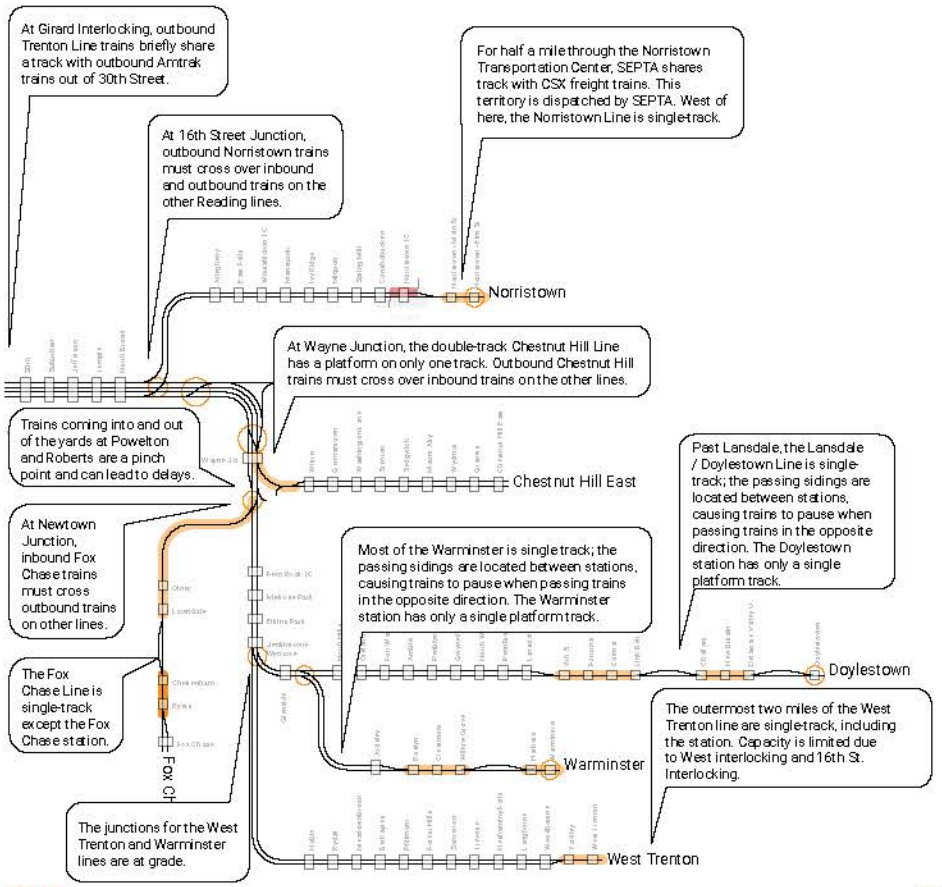
Infrastructure and Operations

The current infrastructure has the capacity for significantly more service, especially off-peak, but a few bottlenecks cap the capacity of the entire network.

There are a variety of operational challenges that exist on the SEPTA Regional Rail network today. These range by line and by location, and include areas where only one track exists, or where tracks narrow from four to two, limiting operations; locations where the same tracks are shared by trains operating service on different lines (and in some instances sharing with Amtrak service); at junctions where trains must cross one another between inbound and outbound service; and locations where passenger and freight operations share tracks. SEPTA through its Capital Improvement Plan and ongoing investment strategies continually looks to relieve bottlenecks in the system.

This diagram shows the flow of Amtrak (grey) and SEPTA (black) trains in both directions across the system; it does not show the full detail of track connections. Where lines overlap there are potential conflicts.





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Demand

Many Regional Rail stations are located in dense, walkable places that have the underlying demand to support all-day frequent service.

The Regional Rail network has been designed to bring riders long distances into Center City. However, many of the stations within the City of Philadelphia and in dense areas across the region, have demand to support all-day frequent service that is much more similar to subway-style service. Most people access services like these within a short walk.

Population density, employment density, industry type, and socioeconomic levels combine to form very high demand throughout much of the City, high enough to support all day service that comes every 15 minutes or more frequently.

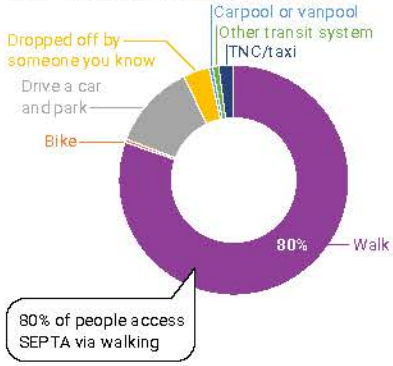
Station spacing along many of the lines within the City is close enough to facilitate shorter trips along the line, not just into Center City.

The vast majority of SEPTA riders walk to access transit. In the 2018 SEPTA Customer Satisfaction Survey, 80% of riders say they most frequently arrive at their SEPTA station or stop by walking. Even for rider survey respondents that reported making at least 5 trips on Regional Rail over the course of a week, that number is 54%. Pedestrian connections at and around stations greatly impact the overall transit experience. Although many neighborhoods served by Regional Rail are technically walkable, the conditions around them do not encourage walking.

The underlying demand for SEPTA service is closely related to land use and is largely concentrated on and around existing and inactive rail lines in Philadelphia and the suburban counties (as shown in the adjacent map).

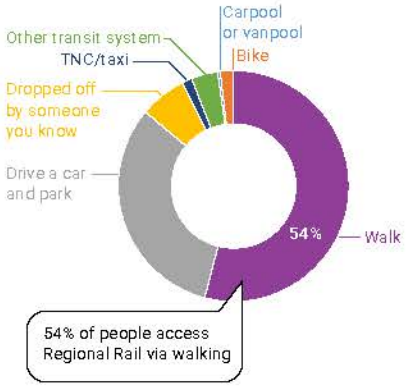
The majority of people walk to access SEPTA transportation

All SEPTA transportation access methods:

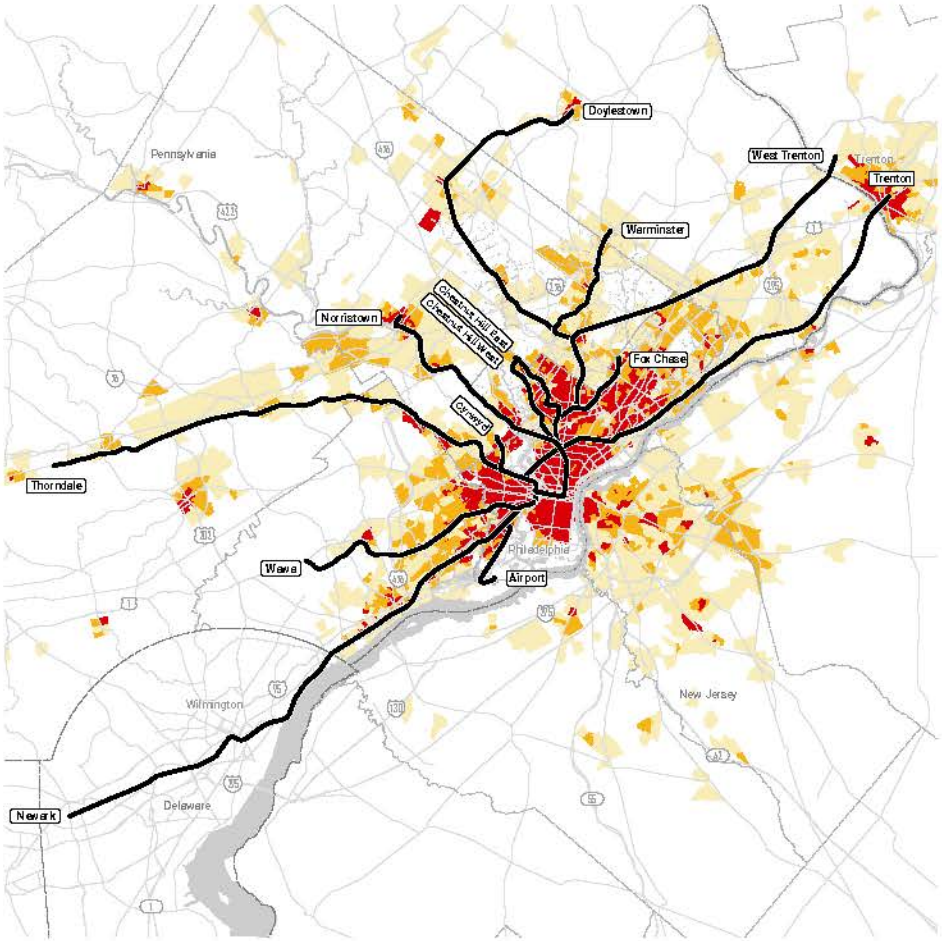


The majority of Regional Rail riders also walk to stations

Regional Rail access method:



Data source: SEPTA 2018 Customer Satisfaction Survey



Underlying Demand for Service

Potential Transit Demand based on Residents and Jobs per Acre

- 60 Min. Service
- 30-60 Min. Service
- All Day Frequent Service

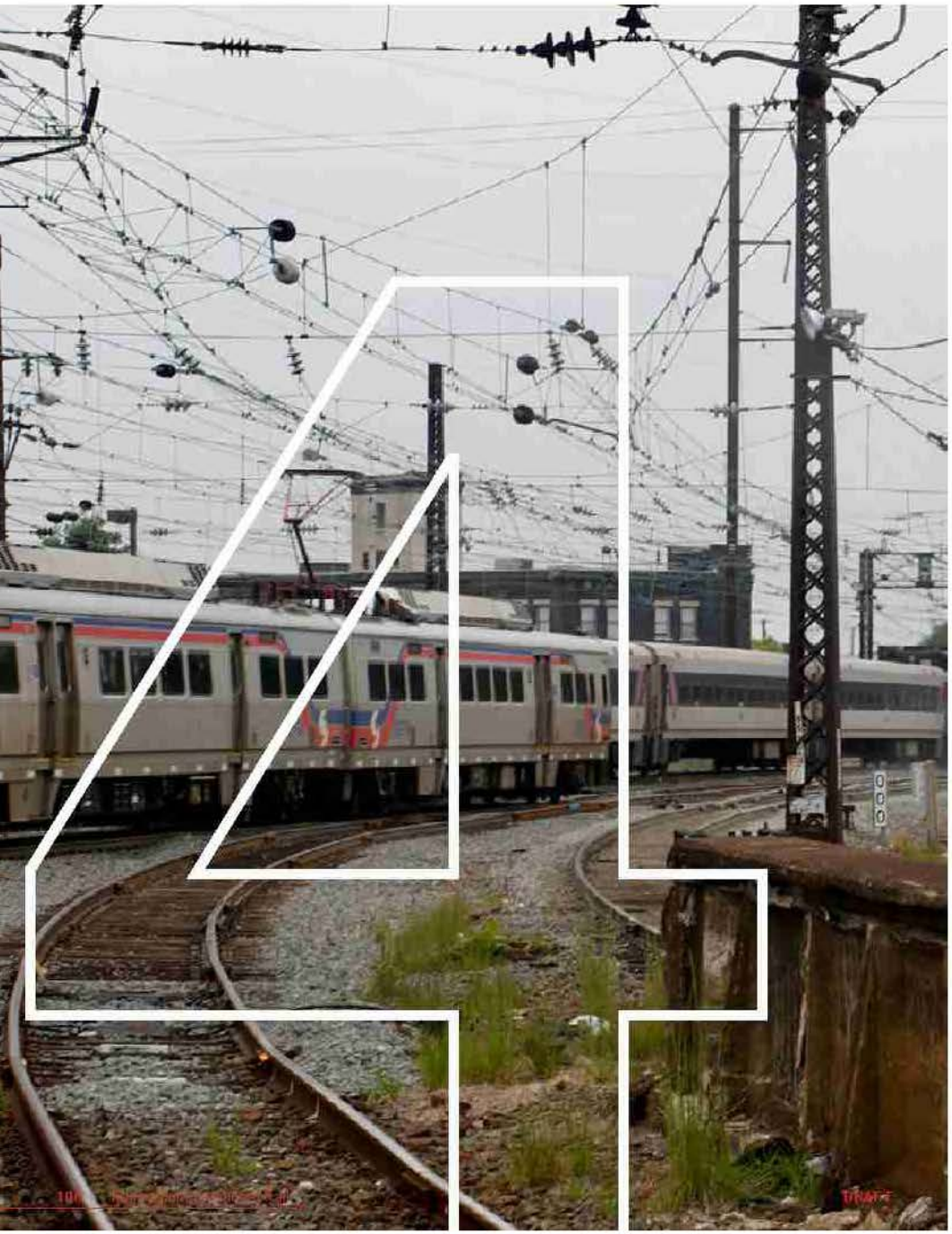
2019 ACS 5-Year Surveys
CTPP, DVRPC

1:500,000

0 5 10 20 miles

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- Scenarios 114
- Evaluating Scenarios 128
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Creating the Vision

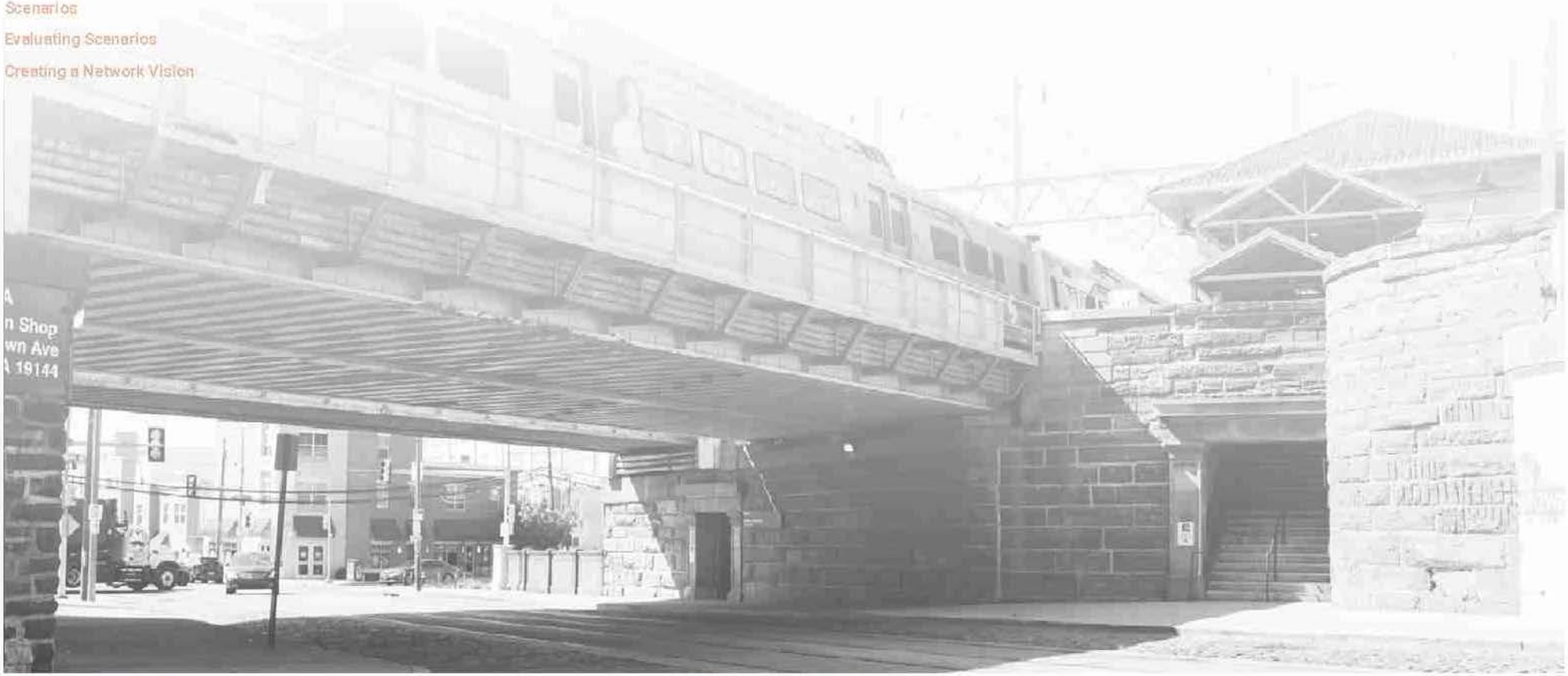
Identifying Opportunities

In Phase 1, people provided input about why they ride Regional Rail, why they don't, and what would improve service and the customer experience.

Scenarios

Evaluating Scenarios

Creating a Network Vision



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Identifying Opportunities

In Phase 1, people provided input about why they ride Regional Rail, why they don't, and what would improve service and the customer experience.

How we Collected Feedback

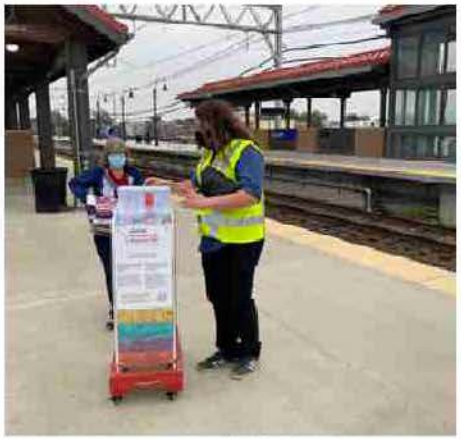
Outreach is at the core of how we reimagine Regional Rail and create a Network Vision. The first phase of outreach began in Fall 2021 and focused on answering the following questions:

- What's working well on Regional Rail?
- What isn't working so well on Regional Rail?
- What are people's priorities when it comes to riding and getting around?

We answered these questions by collecting feedback through an online survey, supported by virtual public meetings, in-person pop ups, and stakeholder meetings. We reached more than 5,000 people from across the spectrum: people who currently ride Regional Rail, people who have ridden in the past but no longer do, people who ride other SEPTA services, and people who don't use public transit at all.

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October 4-5, 2021 Reimagining Regional Rail Pop-ups across the system



Regional Rail engagement cart at Wayne Junction Transportation Center



Regional Rail conductor helping get the cart off the train



Regional Rail engagement cart at Norristown Transportation Center



Regional Rail engagement cart on a Regional Rail train

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Identifying Opportunities

In Phase 1, people provided input about why they ride Regional Rail, why they don't, and what would improve service and the customer experience.

The initial survey respondents were consistent with the type of people who currently and historically have ridden Regional Rail—primarily white, high-income, and relatively young. While this captures the people that Regional Rail is currently working the best for, it is not inclusive of everyone that Regional Rail can serve. To better capture different and diverse perspectives, we added focus groups and community workshops to ensure that people who fall outside of the norm on Regional Rail were also asked about their perception and opinion about Regional Rail. This provided additional context about the barriers to riding Regional Rail, particularly around concerns identified in the online survey such as fare affordability, cleanliness, network integration, accessibility, and schedules.

Safety and cleanliness are key concerns for SEPTA riders system-wide; however, in the focus groups, comfort, safety (peace of mind) and cleanliness were seen as key benefits of the Regional Rail. Regional Rail was also described as more reliable (fewer delays) and generally faster from destination to destination. However, the disjointed fare structure between Regional Rail and the rest of the SEPTA system and the higher price associated with Regional Rail were a big part of why people chose not to ride Regional Rail. Many people in the focus groups also thought it was unclear how to pay for Regional Rail. Focus group participants encouraged SEPTA to change the fare structure (reduce cost) so that Regional Rail is as affordable of an option as SEPTA Bus and Metro.

The focus groups noted that there is a perception that Regional Rail ridership is more affluent and white. They suggested adding more stations in the inner-city ring where Regional Rail traverses along or has stops in predominantly Black neighborhoods, in addition to increasing train frequency to make wait times closer to those for SEPTA Bus or Metro. They also noted that many Black people in Philadelphia do not feel welcome or don't feel like they belong on Regional Rail. Introducing and increasing awareness about Regional Rail as a public transit option that is welcoming for everybody is necessary in addition to other measures like frequency and fare changes to overcome these perceptions.

The primary challenges identified were with:

Affordability

- The system is too expensive compared to parallel service options
- The disparity between Regional Rail and SEPTA Metro prices causes many people to take a longer, less expensive trip on SEPTA Metro or Bus rather than a shorter, more expensive trip on Regional Rail

Integration

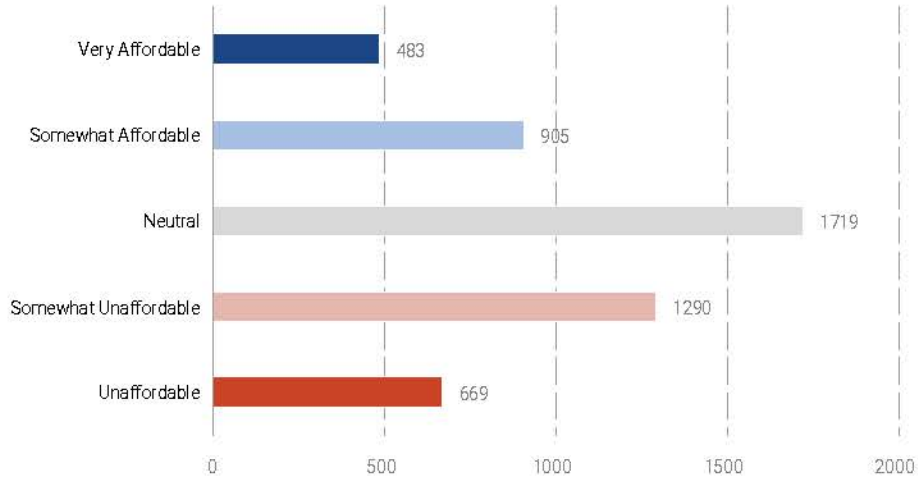
- It is hard to transfer from Regional Rail to other services to complete your trip

Schedule

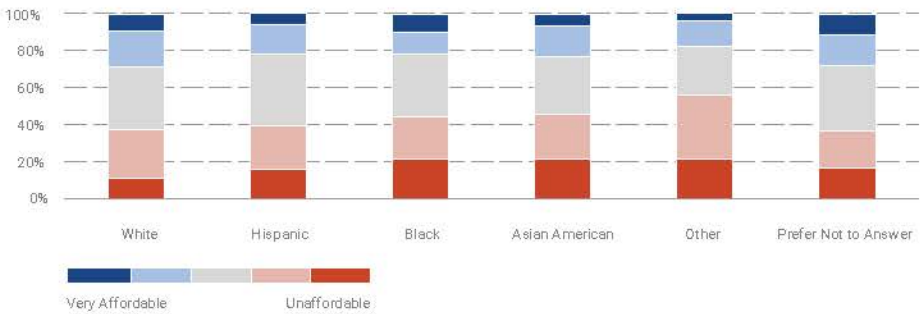
- Service is infrequent and hard to rely on for trips other than traditional nine-to-five commutes

Regional Rail riders have mixed opinions on its affordability, but it does not vary widely by race

Is Regional Rail affordable?



Is Regional Rail affordable?



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Creating the Vision

Identifying Opportunities

Scenarios

Three scenarios were developed in response to the findings from Phase 1 outreach. They address the main challenges in different ways and ultimately guide the new Network Vision.

Scenario 1, Regional Coverage, imagines a Regional Rail system that prioritizes coverage.

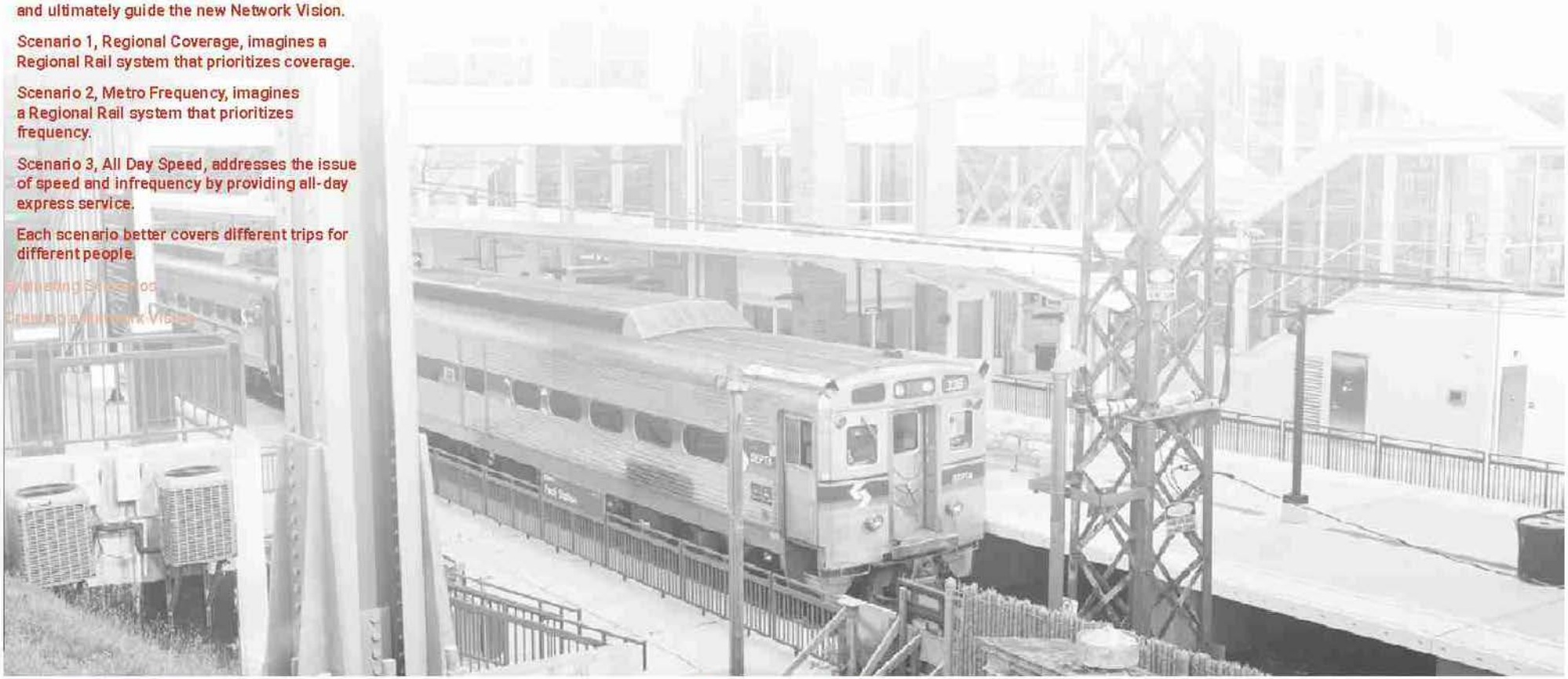
Scenario 2, Metro Frequency, imagines a Regional Rail system that prioritizes frequency.

Scenario 3, All Day Speed, addresses the issue of speed and infrequency by providing all-day express service.

Each scenario better covers different trips for different people.

Evaluating Scenarios

Creating a Network Vision



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Scenarios

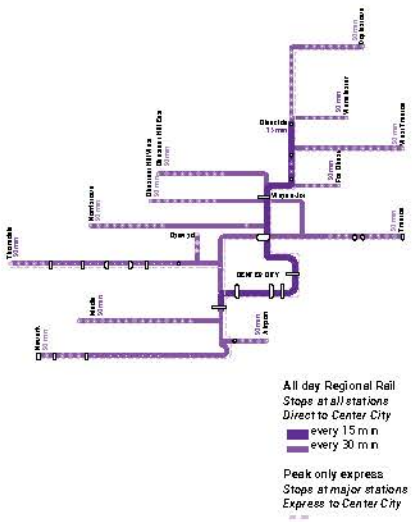
Three scenarios were developed in response to the findings from Phase 1 outreach. They address the main challenges in different ways and ultimately guide the new Network Vision.

There are several ways to run Regional Rail service to better serve different kinds of trips. By leaning on public input, we developed three scenarios reflecting the types of trips and service people wanted, which were developed to inform the final Network Vision for Regional Rail. All three scenarios deploy the same amount of total service in different ways to illustrate tradeoffs between them, and each scenario map depicts how each station would experience each type of service.

The service patterns in the scenarios also change things like stations and platforms, train equipment, and fares. Frequent service is defined as service every 15-minutes or better. In determining where trains should come more frequently, underlying demand for transit service was studied extensively. Underlying demand refers to an estimated level of transit frequency that can be sustained based on population density, employment density, socioeconomic factors, and industry types. The higher the underlying demand, the more frequent service the area can support and the higher levels of transit ridership that can be expected when connected with other high demand areas via transit.

Scenario 1: Regional Coverage

"30-minute all day service everywhere"



Scenario 1 Benefits

Provides consistent service in both directions all-day

Simple to communicate and easy for riders to understand

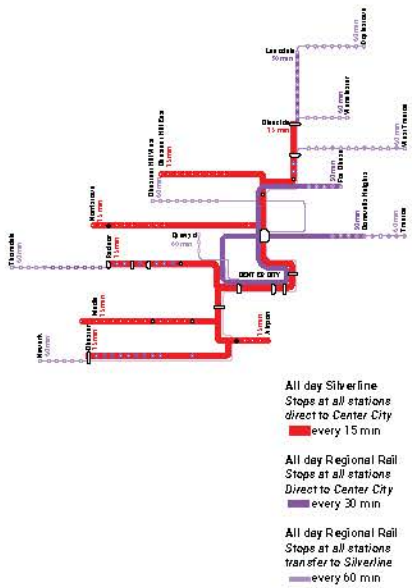
Scenario 1 Tradeoffs

Does not focus on offering frequent service

Does not operate off-peak express service, so midday travel times are not competitive with driving

Scenario 2: Metro Frequency

"High-frequency SEPTA Metro style service where demand is highest"



Scenario 2 Benefits

Reliable frequent service in the core

Frequent service in both directions all day in the inner parts of the system

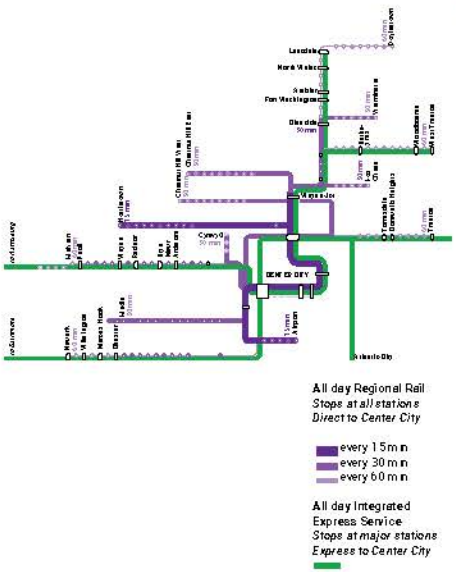
Scenario 2 Tradeoffs

Less frequent service in the outer parts of the system

Does not operate off-peak express service, so midday travel times are not competitive with driving

Scenario 3: All Day Speed

"All day express service better integrated with Amtrak"



Scenario 3 Benefits

Some stops with frequent express to downtown all day

Minimizes duplicative rail service between service providers

Scenario 3 Tradeoffs

Less frequent service on much of the system

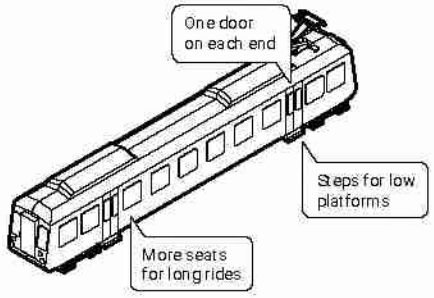
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Scenario 1, Regional Coverage, imagines a Regional Rail system that prioritizes coverage.

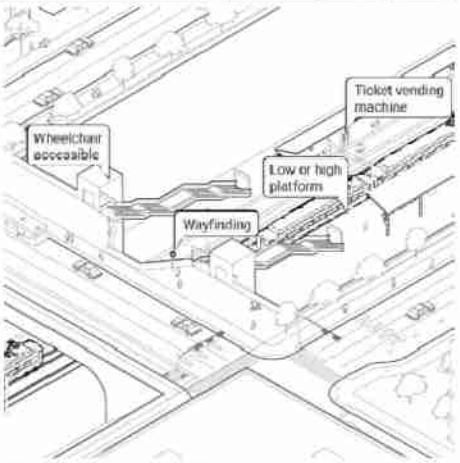
Scenario 1 provides 30-minute service in both directions, all day, across the entire system. Currently, inconsistent and infrequent service makes it difficult to rely on Regional Rail. Scenario 1, Regional Coverage, addresses this by spreading the frequency system wide.

Much of the Regional Rail system has a train once an hour in the middle of the day. Evening and weekend services are similar. That can be inconvenient for riders, who might have to choose between being 5 minutes late or 55 minutes early. Scenario 1, Regional Coverage, has 30-minute service on every line from 5:00am to 1:00am. This would provide riders with a reasonably convenient trip no matter where they are traveling.

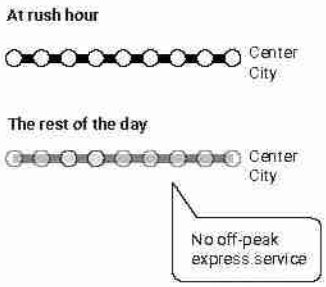
In Scenario 1, trains are designed with plenty of seats and one door on each end.



In Scenario 1, stations are wheelchair accessible and have improved wayfinding.

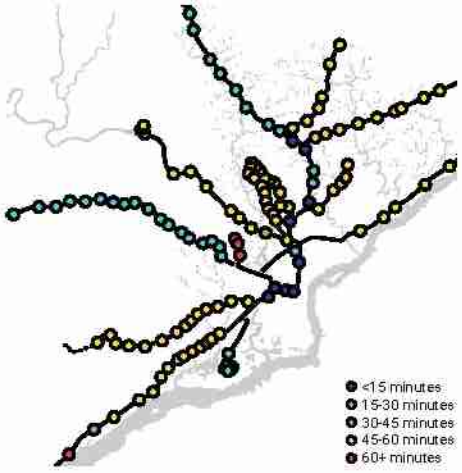


Scenario 1 features express service to and from Center City at peak hours.

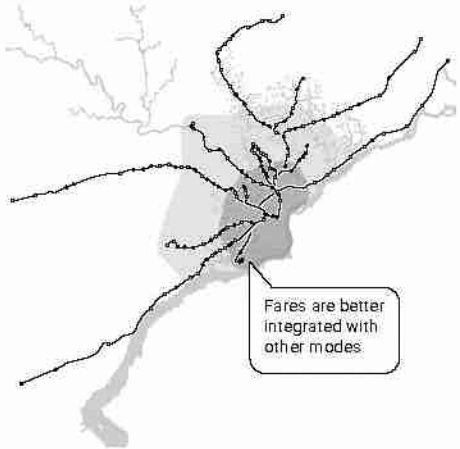


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In 2019, much of the Regional Rail network had 60-minute midday inbound frequency.



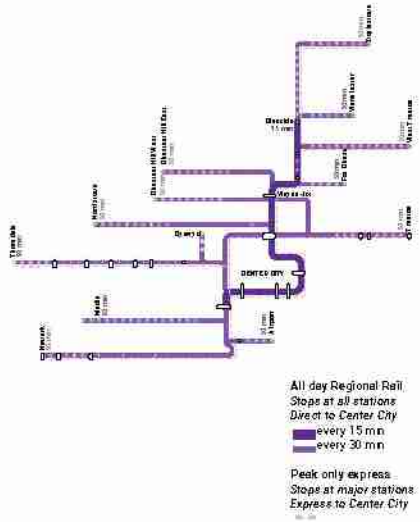
Scenario 1 better integrates fares and transfers with other modes.



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Scenario 1: Regional Coverage

"30-minute all day service everywhere"



Scenario 1 Benefits

Provides consistent service in both directions all-day

Simple to communicate and easy for riders to understand

Scenario 1 Tradeoffs

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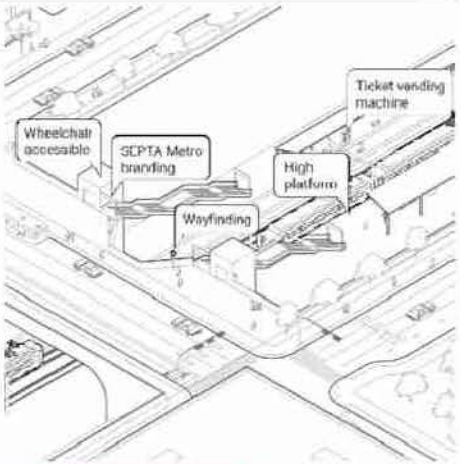
Does not operate off-peak express service, so midday travel times are not competitive with driving

Scenario 2, Metro Frequency, imagines a Regional Rail system that prioritizes frequency.

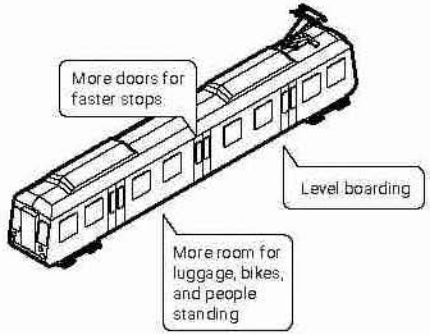
Scenario 2 provides 15-minute service where demand supports it. Scenario 2, Metro Frequency, addresses the issue of infrequency by providing frequency where the land use justifies the investment.

The State of the System chapter shows that a large area in the core of the system has the underlying demand for service that runs every 15-minutes or better. Scenario 2 rebrands a portion of the Regional Rail system as the Silverline (S Line), a new part of SEPTA Metro, that uses Regional Rail tracks but runs like a subway with a train every 15-minutes, all-day, every day. Riders would not have to reference a schedule, and fares integrate with bus, trolley, and the Metro. Station platforms allow for level boarding, and trains have room for bikes, wheelchairs, strollers, and luggage.

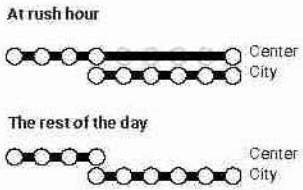
In Scenario 2, stations that have frequent service are rebranded as SEPTA Metro.



In Scenario 2, trains that have frequent service have more doors, less seats, and level boarding.

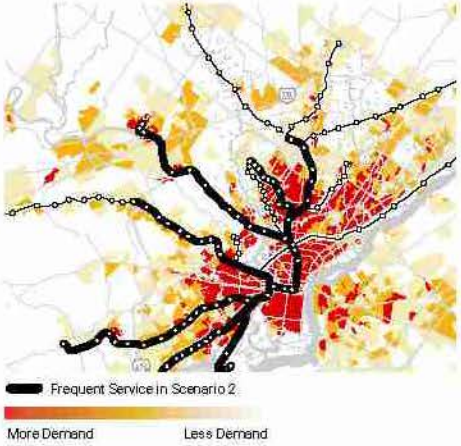


In Scenario 2, the S Line trains run local service all day and Regional Rail trains run Express into Center City at rush hour.

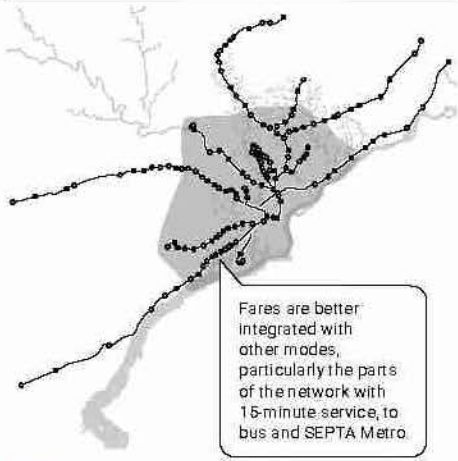


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Scenario 2 adds frequency where there is high demand for transit service.



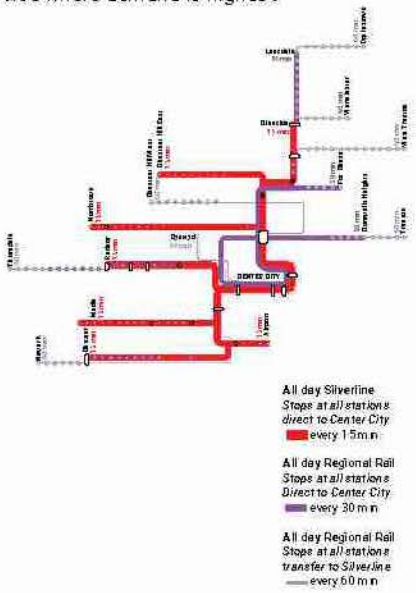
Scenario 2 better integrates fares and transfers to bus and SEPTA Metro, particularly the parts of the network with 15-minute service.



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Scenario 2: Metro Frequency

"High-frequency SEPTA Metro style service where demand is highest"



Scenario 2 Benefits

Reliable frequent service in the core

Frequent service in both directions all day in the inner parts of the system

Scenario 2 Tradeoffs

Less frequent service in the outer parts of the system

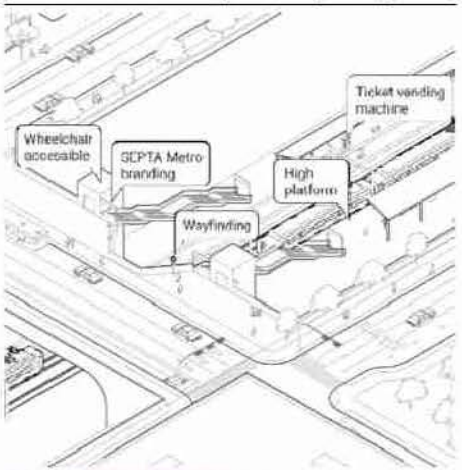
Does not operate off-peak express service, so midday travel times are not competitive with driving

Scenario 3, All Day Speed, addresses the issue of speed and infrequency by providing all-day express service.

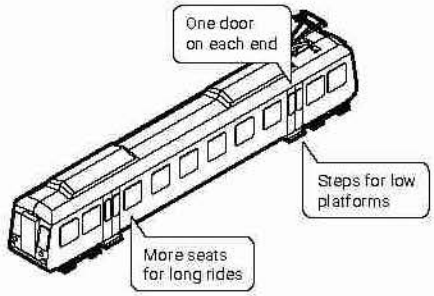
Scenario 3 provides 30-minute service everywhere across the system, both directions, all day. Scenario 3, All Day Speed, addresses the issue of speed and infrequency by providing all-day express service.

Regional Rail is the fastest SEPTA mode. However, off-peak local trains can be 20-minutes slower than peak expresses. In Scenario 3, key stations across the system have express service that can get riders to Center City up to 20-minutes faster than today. The express service runs both ways, all day, every 30-minutes, and combines SEPTA and Amtrak–and the same ticket works for both–minimizing duplicative rail service.

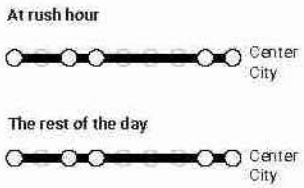
In Scenario 3, stations are wheelchair accessible and have improved wayfinding.



In Scenario 3, trains are designed with plenty of seats and one door on each end.

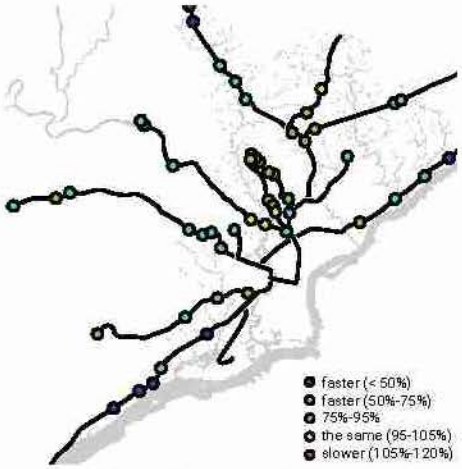


Scenario 3's all day express service has the same stopping patterns at rush hour and the rest of the day.

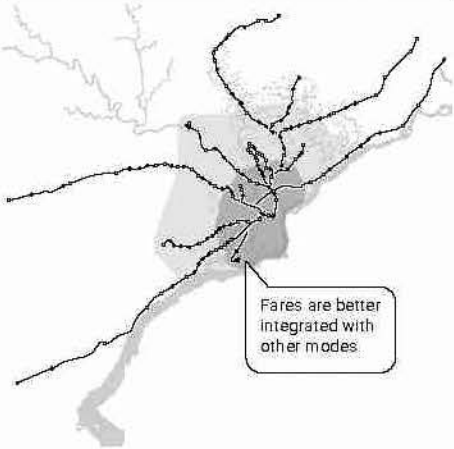


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Scenario 3 addresses travel time to Center City compared to other SEPTA modes.



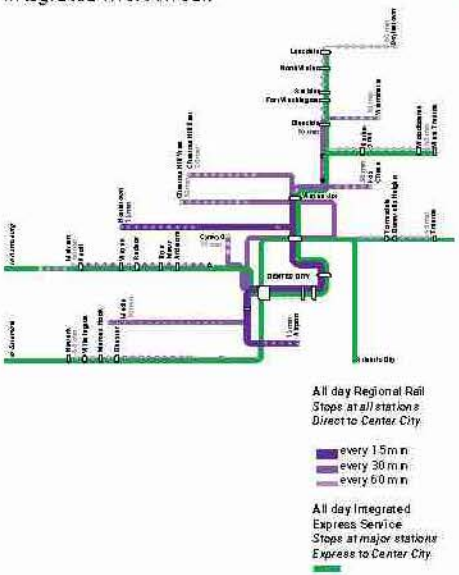
Scenario 3 better integrates fares and transfers with other modes.



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Scenario 3: All Day Speed

"All day express service better integrated with Amtrak"



Scenario 3 Benefits

Some stops with frequent express to Center City all day

Minimizes duplicative rail service between service providers

Scenario 3 Tradeoffs

Less frequent service on much of the system

Does not operate off-peak express service, so midday travel times are not competitive with driving

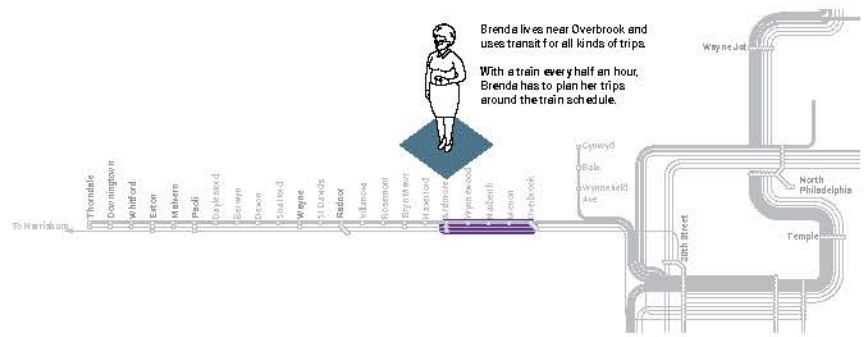
Scenarios

Each scenario better covers different trips for different people.

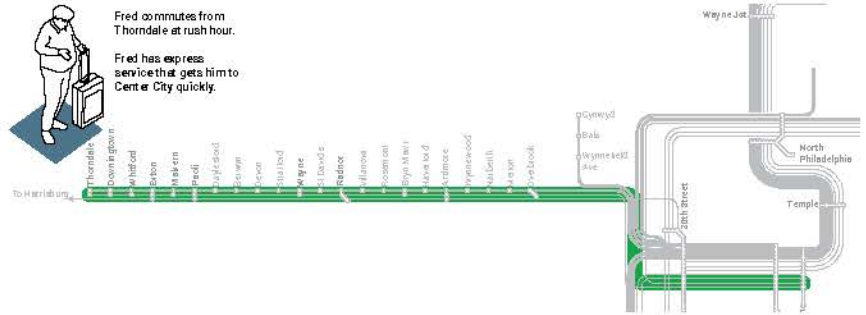
Regional Rail is an extremely versatile and reliable transit service, and the way the service is prioritized and scheduled has a dramatic impact on the way that people can use it. If service is infrequent during some parts of the day and more frequent during others, people whose lives are more regularly planned can benefit more from the service. If the train is scheduled frequently throughout the day, people can use it for a larger variety of types of trips to a larger variety of places.

Different types of typical trips see a range of changes and tradeoffs in each scenario. Here, three trips show how each scenario's service characteristics may affect a rider's experience. Fictional character Brenda lives near Overbrook and uses transit for all kinds of trips throughout the day. Fred commutes from Thorndale at rush hour, and Isabella lives in Paoli and works a midday shift in University City.

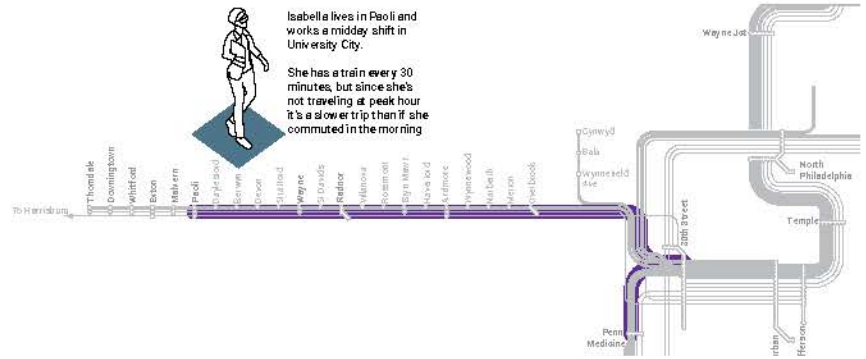
In Scenario 1, Brenda's trips get a little easier



In Scenario 1, Fred has an easy, regular trip



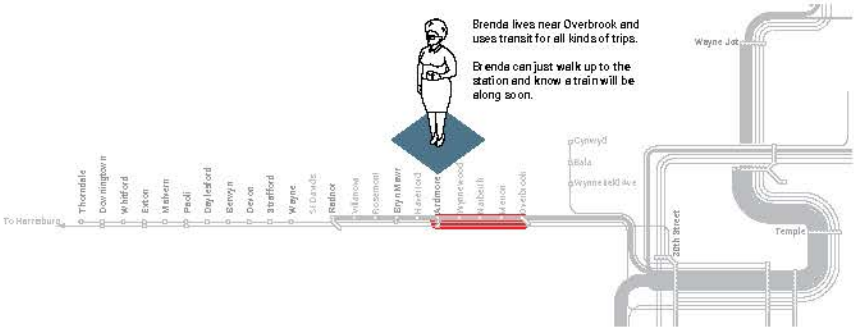
In Scenario 1, Isabella can count on the train, but it's a slower trip



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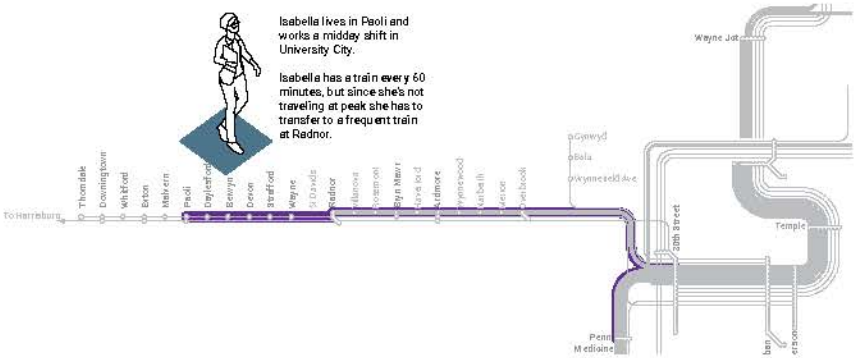
In Scenario 2, Brenda can treat Regional Rail like subway-style transit



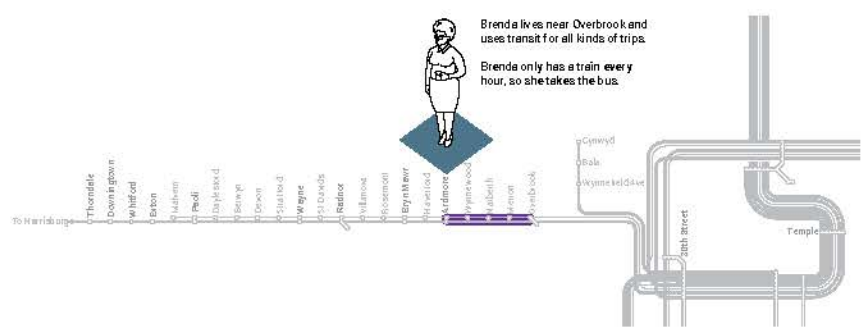
In Scenario 2, Fred has an easy, regular trip



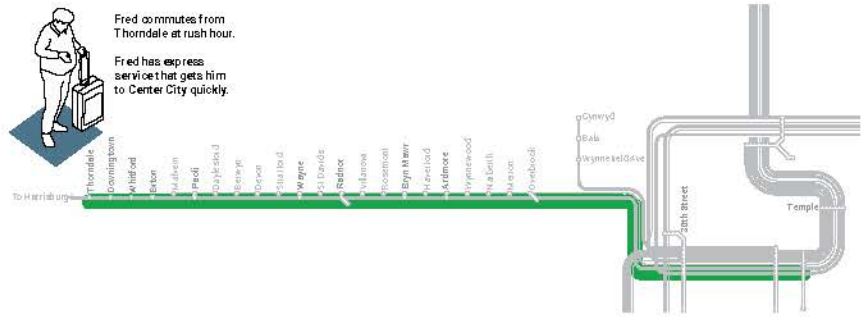
In Scenario 2, Isabella has to transfer trains at Radnor



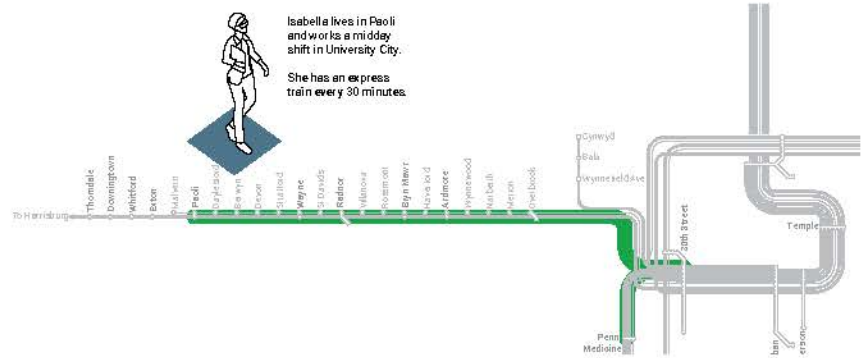
In Scenario 3, Brenda only has one train per hour



In Scenario 3, Fred has an easy, regular trip



In Scenario 3, Isabella has a fast trip to Center City every 30-minutes



Creating the Vision

Identifying Opportunities

Scenarios

Evaluating Scenarios

Each Scenario was evaluated against three main goals and objectives

Each scenario performed well at different criteria.

The impact on ridership of each scenario was measured using DVRPC's Regional Travel Model. Increased frequency had the biggest positive impact on ridership, especially in dense areas.

Scenario 2 performed best against most metrics.

Creating a Network Vision



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Evaluating Scenarios

Each Scenario was evaluated against three main goals and objectives.

By evaluating the three scenarios against the goals and objectives, SEPTA and the public can understand where each scenario has its strengths and weaknesses. This process allows us to create a final proposed Regional Rail network that doesn't just fill gaps in the existing system but transforms mobility in the SEPTA region.

All of the scenarios represent an increase in service levels and improved infrastructure as compared to the existing system. While the number of service hours between scenarios was kept constant, it's important to understand where decisions about frequency and other service characteristics, as well as infrastructural investments, yield different results.

We designed the goals and objectives to respond directly to gaps we identified in the existing system. Today, the majority of Regional Rail riders are higher-income workers commuting to and from Center City from outside of the City of Philadelphia. Most of the service is infrequent, and each line has many service patterns. Most Regional Rail riders do not transfer to or from other SEPTA services. Accessibility varies widely at stations and fares are a barrier for many could-be riders in low-income areas.

We found that most Regional Rail riders are white non-Hispanic (70+%) and high-income (60+%). To increase/better serve low-income and minority riders, every scenario increases frequency in the low-income areas, better integrates with other SEPTA modes through scheduling and infrastructure and offers lower fares. The goals and objectives measure these benefits directly.

Access to opportunity / equity



Goal 1

Increase and improve access to opportunity

Objectives

Connect both traditional and non-traditional users with where they want to go, when they want to get there

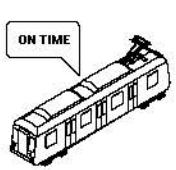
Make Regional Rail more affordable and more useful for lower-income people

Operate service so it offers travel times that are competitive with driving

Evaluation Criteria

- Access to destinations within 30-minutes (AM peak and Midday)
- Access to destinations within 30-minutes for low-income communities (AM peak and Midday)
- Average transportation fare for low-income communities (for home-based trips)
- Difference between average global transit travel time vs driving (PM peak) for key trip pairs
- Difference between average global transit travel time vs driving (Midday) for key trip pairs

Trust and reliability



Goal 2

Create a reliable, predictable Regional Rail system that people can trust

Objectives

Increase the usability of the whole SEPTA system by integrating Regional Rail lines with each other, bus, and rail transit

Go beyond the minimum accessibility requirements to make the system easy to use for everyone

Evaluation Criteria

- Number of transfer points between frequent Regional Rail and SEPTA Metro
- Number of frequent bus routes connecting to frequent Regional Rail outside of Center City
- Percentage of boardings with full level boarding

Seamless, simplified network



Goal 3

Prioritize an intuitive rider experience through a seamless, welcoming system

Objectives

Improve service reliability

Make service easy to understand and minimize duplicative rail service

Offer frequent service where demand justifies it

Evaluation Criteria

- Number of times a day a train passes through a potential delay point
- Number of service patterns
- Population within 15-minute walk (3/4 mile) of frequent service stations

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Evaluating Scenarios

Each scenario performed well at different criteria.

Scenario 1 increases ridership in suburban areas by offering a system with all-day 30-minute service, not just during peak periods.

Scenario 1

Increases ridership in all parts of system, especially outer portions of the system, due to the increases in frequency relative to the current network

Benefits those traveling outside of peak periods

Provides service that is faster than driving for key trip pairs during rush hour

However, Scenario 1 also...

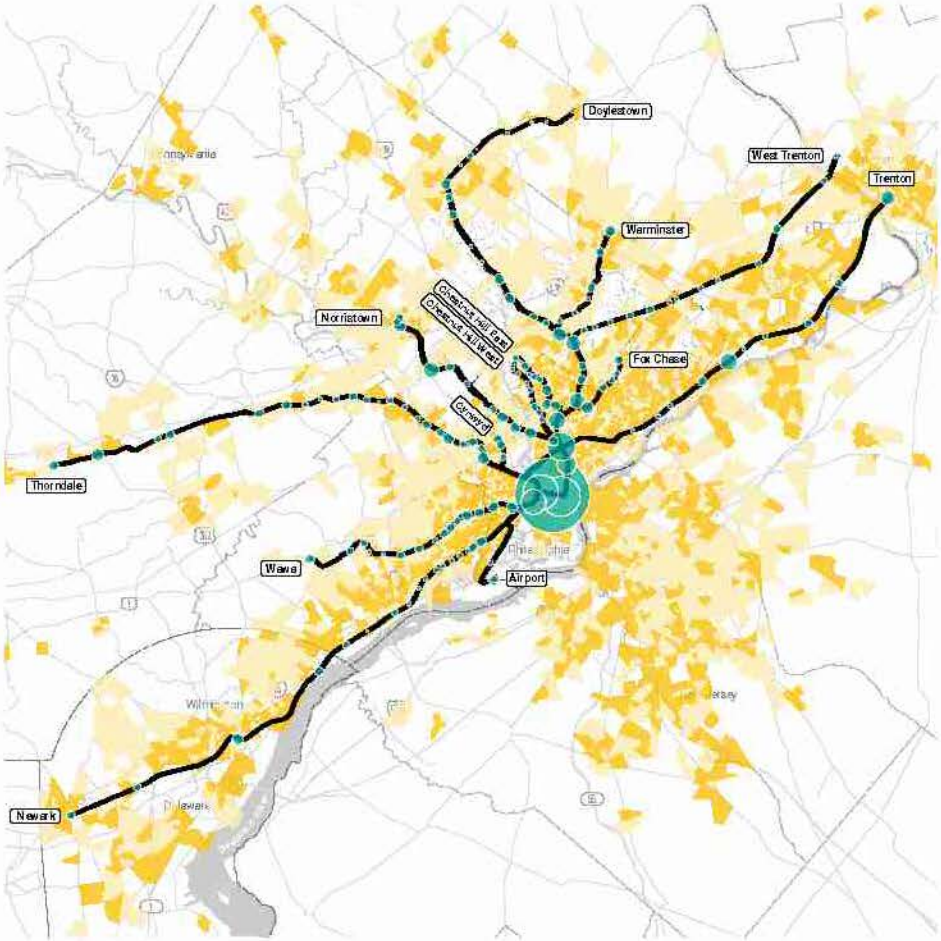
Provides very little frequent service, despite improved frequency from the current system

Does not increase access to destinations that can be reached within 30-minutes during peak or midday for any riders

Does not connect as well into the rest of the SEPTA system

Does not address accessibility adequately—it has the lowest percentage of boardings at stations with full level boarding

Has the highest potential for delay



Scenario 1 Ridership

Total Daily Boardings per Stop
(circles sized proportionally)

100 500 1,000 5,000 10,000

Non-Traditional Commuters

Share of Commuters Leaving for Work Outside the AM Peak (Before 6AM or After 9AM)
Regional Mean: 36%

Above average

At or below average

1:500,000 2019 ACS 5-Year Surveys

0 5 10 20 miles

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Each scenario performed well at different criteria.

Scenario 2 increases ridership and access most, scoring highest in almost every metric

Scenario 2

More than doubles ridership over the existing system (an increase of 115%)

Matches frequent service to demand, providing frequency where the land use justifies it

Greatly increases access to destinations during peak and midday periods for both the region as a whole and low-income communities

Provides the lowest average fare for low-income communities

Provides service that is faster than driving for key trip pairs during rush hour (more so than Scenario 1)

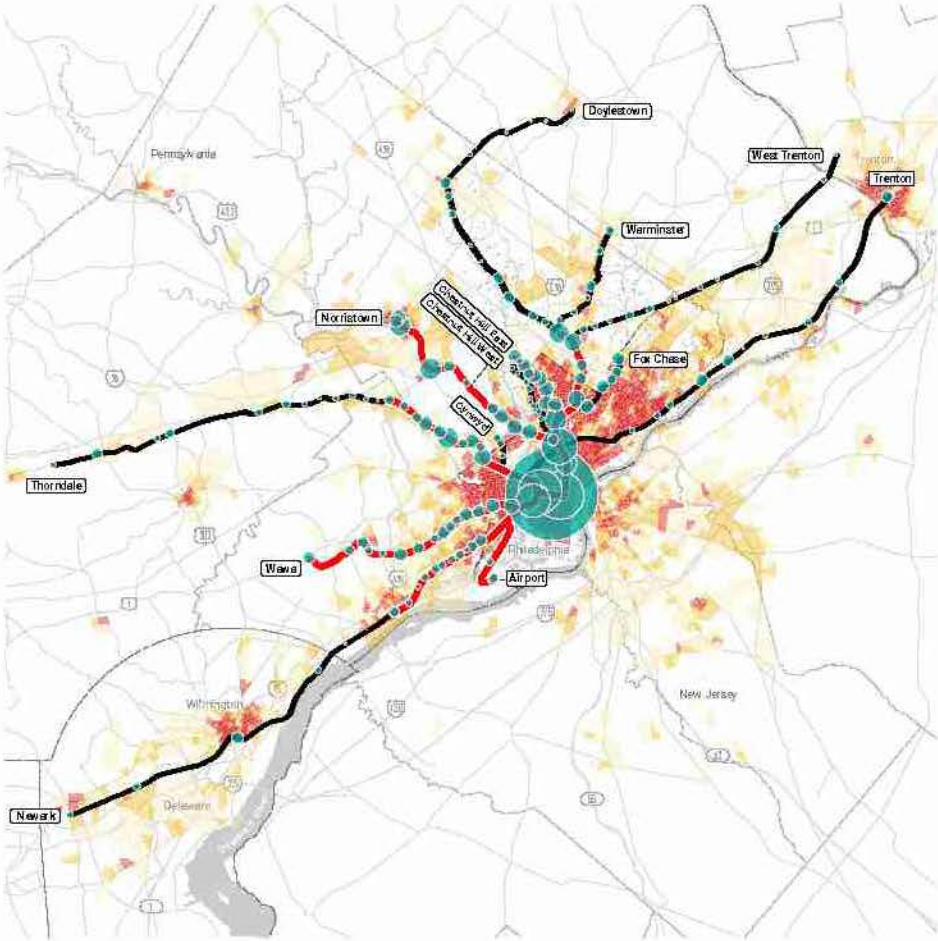
Has the highest number of transfer points between frequent Regional Rail and SEPTA Metro and frequent bus service, making it easy to get farther faster

Improves accessibility with the vast majority of stations having full level boarding

Has the lowest potential for delay

However, Scenario 2 also...

Has the most major cost elements for infrastructure capital costs



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Scenario 3 offers faster trips, but only in some places.

Scenario 3

Speeds up trips for riders boarding at express stations, leading to more places being accessible in a 30-minute time frame than Scenario 1

Eliminates redundancy between SEPTA and Amtrak

Provides some sections of frequent service

Has the fewest major cost elements for infrastructure capital costs

However, Scenario 3 also...

Has the smallest increase in system-wide ridership

Provides the slowest travel times of the scenarios between key trip pairs, making it less competitive with driving

Provides lower quality service to non-express stations on express lines.



North Philadelphia Station Accessibility

Areas within 60 minutes on RR at 8 am

Existing System

Scenario 3

1:500,000 SEPTA

0 5 10 20 miles

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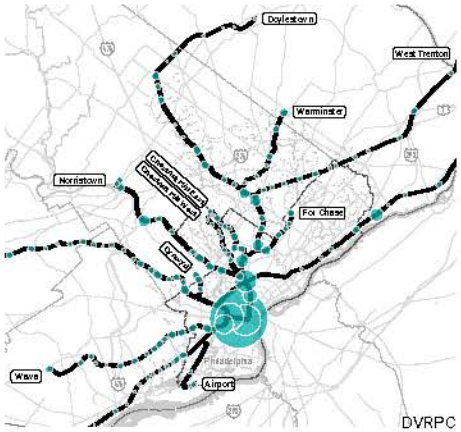
Evaluating Scenarios

The impact on ridership of each scenario was measured using DVRPC's Regional Travel Model (for build year 2045). Increased frequency had the biggest positive impact on ridership, especially in dense areas.

The scenarios were all run through the DVRPC Regional Travel Model to obtain ridership estimates at the station level. All scenarios increased ridership over the existing system, but by different amounts and in different places.

All scenarios were run through the DVRPC Regional Travel Model to obtain ridership estimates at the station level. DVRPC's model includes regionally-adopted population and employment growth projections made at the TAZ level accounting for land uses in each TAZ. Travel demand models are used to estimate the outcome of proposed projects or services. The model estimates the number of trips, then determines where those trips occur. Next, it predicts the mode choice; how a particular trip will be made, such as by driving a car, carpooling, riding transit, or walking. Finally, a trip assignment is performed where the model determines which paths along the road or transit network each trip will take to reach its final destination. These paths are calculated to find those that minimize travel time and cost. The differences in service frequency, travel time, and service patterns between the scenarios influences how the travel model assigns trips. More frequent and faster service has more trips assigned to transit as compared to other modes.

Scenario 1 had the second-highest ridership increase, primarily in areas with high population density

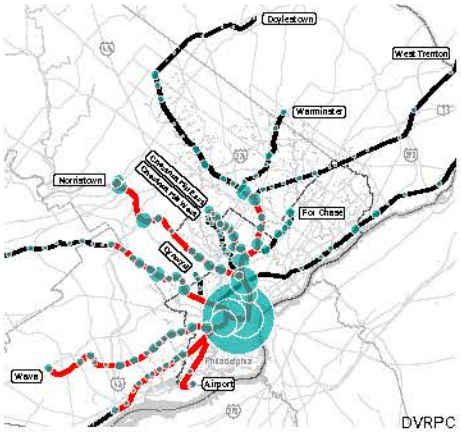


Scenario 1 Ridership:
Total Daily Boardings per Stop

100 500 1,000 5,000 10,000 (circles sized proportionally)

Scenario 1 had increased ridership everywhere, but we saw much bigger increases in some areas. The areas with the most increase were areas with high population density and areas with non-traditional commuters (i.e., those who commute outside the peak periods).

Scenario 2 had the highest ridership increase because of the extent of the high frequency network and its overlap with demand for trips



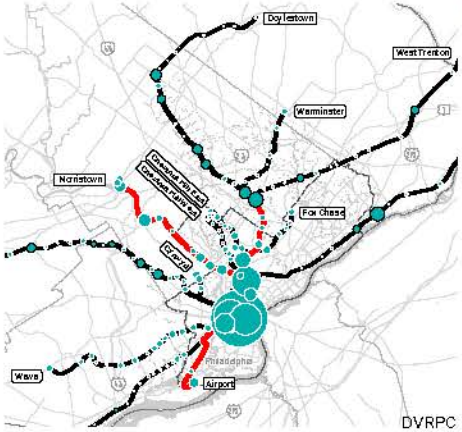
Scenario 2 Ridership:
Total Daily Boardings per Stop

100 500 1,000 5,000 10,000 (circles sized proportionally)

All Day Frequent Service

Scenario 2 had increased ridership significantly over Scenario 1, especially where there was underlying demand. Scenario 2 benefited nontraditional commuters.

Scenario 3 had the lowest ridership gains, and the increases that did happen were concentrated at express stops or on the frequent lines



Scenario 3 Ridership:
Total Daily Boardings per Stop

100 500 1,000 5,000 10,000 (circles sized proportionally)

All Day Frequent Service

Express Stations

Scenario 3 had high ridership at express stations and on frequent lines. Ridership at stations without express service was lower than in other scenarios. Scenario 3 had the lowest ridership increase of the three proposed scenarios.

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Higher frequency increases ridership across the system, but especially in dense areas.

This table and map show that more frequent trains are the biggest driver of ridership increases. Comparing Scenario 2 and Scenario 3 to Scenario 1 reveals where particular service changes result in positive or negative effects on ridership. Because Scenario 1 gives every line and every station the same level of service, 30 minutes all day, we can understand what influences ridership when service levels and patterns are not the same for every station and line, and when a station has higher or lower frequency than 30 minutes.

Every line with frequent service in Scenario 2 has much higher ridership than in Scenario 1. Lines with high underlying demand and large travel flows saw the biggest increase in ridership (Chestnut Hill East, Paoli/Thorndale, and Manayunk/Norristown). The higher the underlying demand, the more frequent service the area can support and the higher levels of transit ridership that can be expected when connected with other high demand areas via transit.

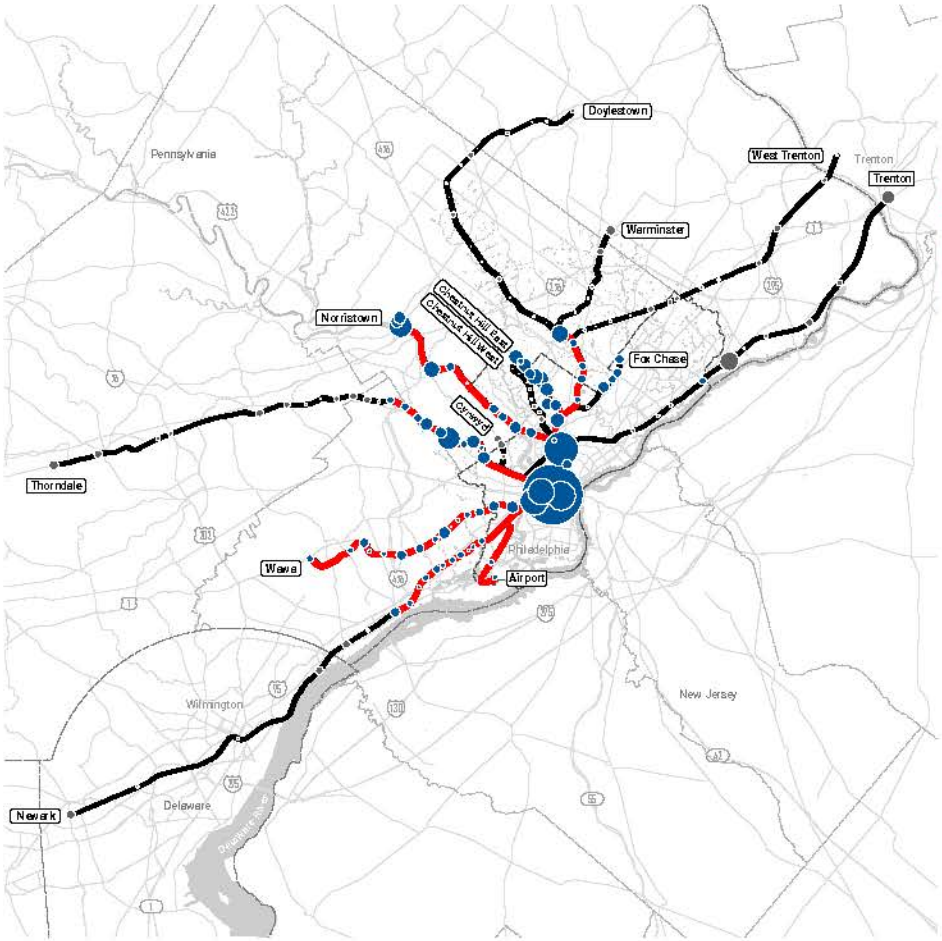
In Scenario 3, the two lines with the biggest increase in ridership over Scenario 1 also have frequent service.

Scenario 2 saw ridership losses for those lines with 60-minute service.

Total Ridership Change from Scenario 1 to Scenario 2

Line	Ridership Change	Frequency Change (minutes)
Chestnut Hill East	149%	30 to 15
Paoli/Thorndale middle, Radnor to Haverford	105%	30 to 15
Paoli/Thorndale inner, Ardmore to Overbrook	77%	30 to 15
Manayunk/Norristown	73%	30 to 15
Wilmington/Newark inner, Darby to Chester	67%	30 to 15
Fox Chase	59%	no change
Wawa	55%	30 to 15
Airport	22%	30 to 15
Lansdale/Doylestown	-12%	partially reduced 30 to 60
Warminster	-17%	30 to 60
Chestnut Hill West	-17%	30 to 60
Trenton inner, Bridesburg to Cornwells Heights	-22%	no change
West Trenton	-29%	30 to 60
Wilmington/Newark outer, Highland Ave to Newark	-31%	30 to 60
Paoli/Thorndale outer, St Davids to Thorndale	-35%	30 to 60
Cynwyd	-40%	30 to 60
Trenton outer, Eddington to Trenton	-42%	30 to 60

Shaded lines made frequent in Scenario 2



Ridership Change from Scenario 1 to Scenario 2

Total Daily Boardings per Stop
(circles sized proportionally)

100 500 1,000 5,000

Positive Difference (Increase in Ridership)

Negative Difference (Decrease in Ridership)

All Day Frequent Service

1:500,000

0 5 10 20 miles

DVRPC

Higher frequency increases ridership across the system, but especially in dense areas.

Express stations see ridership increases, but providing express service only at some stations yields mixed results.

In Scenario 3, the top ridership increases over Scenario 1 are in the two more frequent lines. The next two ridership increases (Lansdale/Doylestown and the middle section of Paoli/Thorndale) also see notable ridership increases over Scenario 1 because of the inclusion of express service, even with frequency cuts.

These increases are probably due to the fact that most ridership this far out is into Philadelphia and Center City specifically, instead of other stations along the line. Therefore, faster service may be even more attractive to riders than more frequent service. In addition, many riders along these lines are driving to park-and-rides, so may be willing to drive to a station with express service rather than access the closest station in Scenario 1.

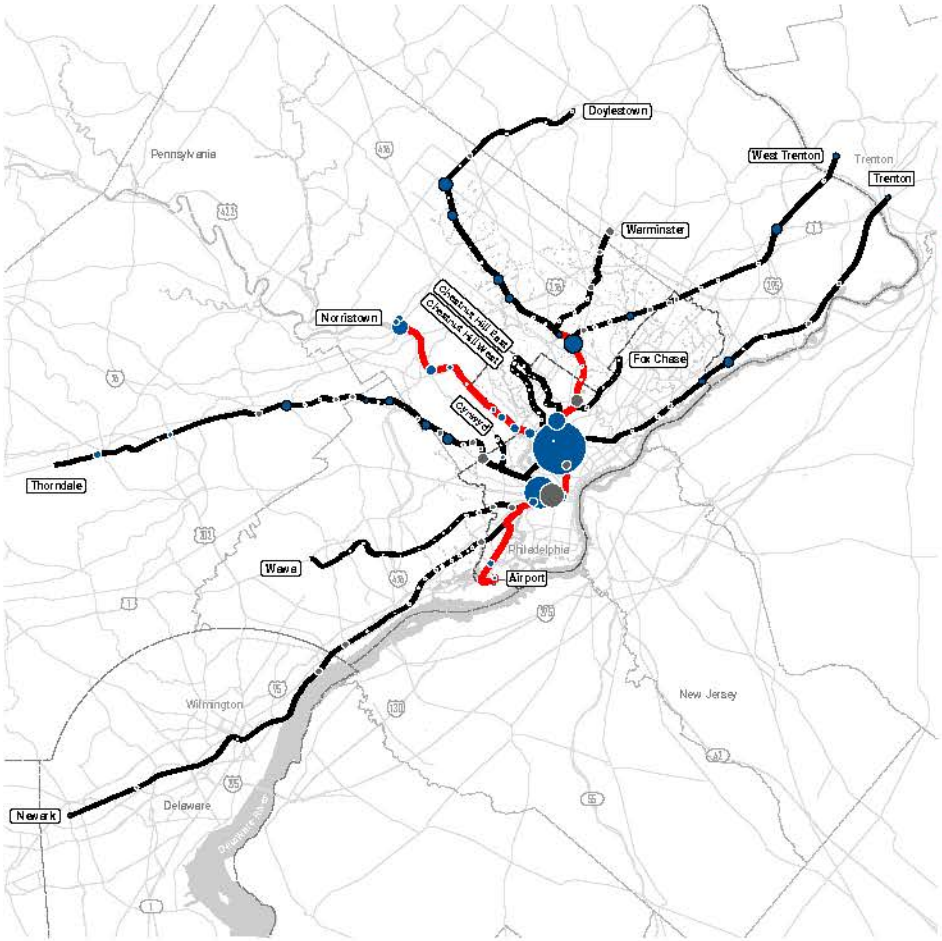
Other lines stay close to the same ridership or experience losses. This indicates that while express stations get faster service, it is to the detriment of service at nearby stations. Express service may also not match up well with travel flows, as not everyone is traveling into Center City.

Total Ridership Change from Scenario 1 to Scenario 3

Line	Ridership Change	Frequency Change (minutes)
Manayunk/Norristown	34%	30 to 15
Airport	20%	30 to 15
Lansdale/Doylestown	19%	30 to 60, + express
Paoli/Thorndale middle, Radnor to Haverford	12%	30 to 60, + express
Cynwyd	11%	no change
Chestnut Hill West	8%	no change
Trenton inner, Bridesburg to Cornwells Heights	5%	30 to 60, + express
Paoli/Thorndale outer, St Davids to Thorndale	1%	30 to 60, + express
Chestnut Hill East	0%	no change
Paoli/Thorndale inner, Ardmore to Overbrook	-3%	30 to 60, + express
Fox Chase	-7%	no change
Trenton outer, Eddington to Trenton	-10%	30 to 60, + express
Wawa	-11%	no change
West Trenton	-14%	30 to 60, + express
Wilmington/Newark outer, Highland Ave to Newark	-15%	reduced 30 to 60, + express
Wilmington/Newark inner, Darby to Chester	-27%	reduced 30 to 60, + express
Warminster	-35%	reduced 30 to 60

Shaded lines added express in Scenario 3

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Ridership Change from Scenario 1 to Scenario 3

Total Daily Boardings per Stop (circles sized proportionally)

100 500 1,000 5,000

All Day Frequent Service

Positive Difference (Increase in Ridership)

Negative Difference (Decrease in Ridership)

Express Station

1:500,000

DVRPC

0 5 10 20 miles

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Scenario 2 performed best against most metrics.

Metrics allow us to understand where each scenario does better or worse and by how much. The scenarios and the existing system were assessed against fifteen metrics. Scenario 2 fared the best—meaning it meets our goals best.

Each one of the three scenarios employs more operating hours than the current system and thus requires more costs to keep it running, but those investments result in every scenario measuring better than existing service on each of the fifteen metrics.

The metrics measure a broad range of criteria, from cost to rider access to fare costs, and number of service patterns. Scenario 2 scores highest (or is tied for highest) of the scenarios for every metric except two. Scenario 2 scores particularly well on destination access because it makes it quicker for riders to get more places across the network and services are better connected to each other for easy transfers. It also has the cheapest average fare for riders, more accessible stations, and puts frequent service near more residential areas.

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Evaluation criteria:	Scenario 1: Regional Coverage	Scenario 2: Metro Frequency	Scenario 3: All Day Speed
Total Systemwide Ridership Increase (% from existing year - 2019)	103% ridership increase	115% ridership increase	65% ridership increase
Major cost elements for infrastructure capital costs	29 major cost elements	45 major cost elements	25 major cost elements
Access to opportunity / equity:			
Destination access in 30 minutes: AM peak	59,100 destinations	111,120 destinations	64,990 destinations
Destination access in 30 minutes: Midday	59,100 destinations	111,130 destinations	64,850 destinations
Destination access in 30 minutes for low-income communities: AM Peak	71,490 destinations	152,880 destinations	90,390 destinations
Destination access in 30 minutes for low-income communities: Midday	71,490 destinations	152,880 destinations	90,190 destinations
Average transportation fare for low-income communities (for home-based trips)	$2.72	$1.96	$2.37
Difference between average global transit travel time vs driving (PM peak) for key trip pairs	-3.5% difference	-5% difference	2% difference
Difference between average global transit travel time vs driving (Midday) for key trip pairs	22% difference	20% difference	23% difference
Trust and reliability:			
Number of transfer points between frequent Regional Rail and SEPTA Metro	5 transfer points	11 transfer points	7 transfer points
Number of frequent bus routes connecting to frequent Regional Rail outside of Center City	2 connecting routes	8 connecting routes	5 connecting routes
Percentage of boardings at stations with full-level boarding	72% full-level boarding	91% full-level boarding	74% full-level boarding
Seamless, simplified network:			
Number of times a day a train passes through a potential delay point	3,324 delay points	2,872 delay points	3,281 delay points
Number of service patterns	25 service patterns	25 service patterns	20 service patterns
Population within 15-minute walk (3/4 mile) of frequent service stations	188,209 people	498,925 people	222,247 people

Creating the Vision
Identifying Opportunities
Scenarios
Evaluating Scenarios
Creating a Network Vision

Feedback on scenario preferences was collected through an online quiz that allowed people to weigh in on the trade-offs between different types of service and express preferences between scenarios.

Respondents preferred Scenario 2 but identified elements of each scenario that resonated with them.

We followed up with underrepresented groups, and they also preferred Scenario 2.

Extensions do not have the same ridership potential as providing more service on the existing network.

Infill stations in the right locations could boost ridership. Six infill stations are identified as potential opportunities.



DRAFT DRAFT

Feedback on scenario preferences was collected through an online quiz that allowed people to weigh in on the trade-offs between different types of service and express preferences between scenarios.

Outreach around the scenarios allowed us to get feedback from riders and non-riders across the SEPTA service area. This phase of outreach included an online interactive tool that captured which scenario resonated most with the public through a short quiz. Public meetings and community workshops with non-riders were also held to help fill in some gaps left by the online tool.

The online interactive tool matched users with one of the three scenarios based on trade-off questions about frequency, speed, demand, and infrastructure. The tool also collected information on demographics and how often the respondent currently rides Regional Rail. The tool matched users with a scenario based on their answers, but they were free to pick a different scenario at the end. Most people picked the scenario they were matched with, but some did not.

A total of approximately 2,700 respondents participated in the survey before it closed in August 2022. Concerned by the lack of low-income and minority voices in the survey and public meetings, Community Workshops with riders and non-riders in West and North Philadelphia, Norristown, and Chester helped engage historically unrepresented groups and more closely reflect the region's demographics. To provide an in-person opportunity for engagement, the components of the online tool were adapted from the web interface to an exhibit-style open house meeting hosted in Jefferson Station. Participants were able to experience the engagement similarly to the online experience: if they had just five minutes to catch their train, someone could quickly go through the questions with a facilitator to provide their input and recommend a scenario. If the participant had more time, a wealth of information was provided on the backside of the poster frames in order to allow for longer, more detailed conversations about the scenarios and Regional Rail's service. By hosting the event in such a high-volume location and holding pop up outreach in the station throughout the day, over 800 riders were reached with information about the project.

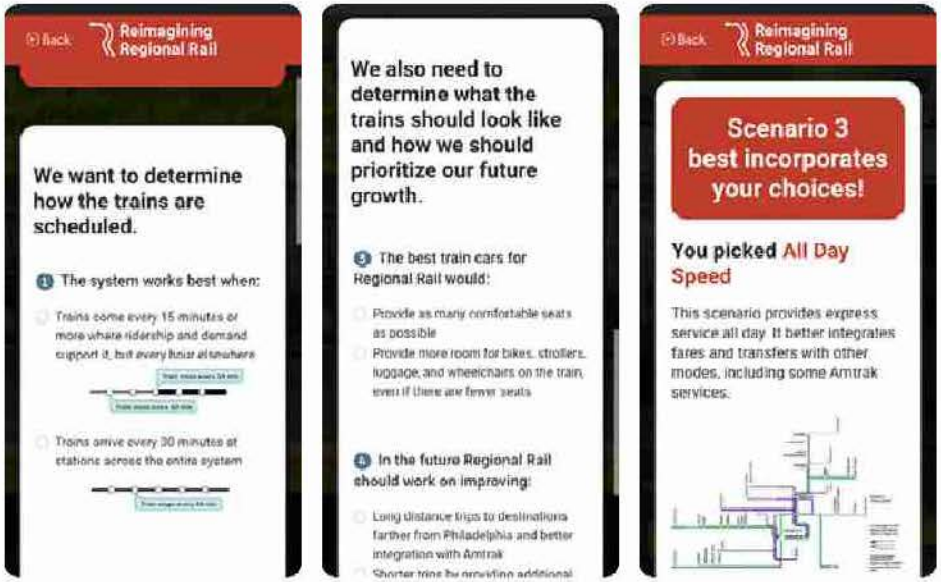
The in-person public meeting in Jefferson Station allowed people who were on their way to use Regional Rail to give comments and learn about the project and how to get involved





People interacting with technical staff at Jefferson Station

The online tool matched users with a scenario based on tradeoff questions



Screenshots of mobile experience for Outreach Phase 2

Respondents preferred Scenario 2 but identified elements of each scenario that resonated with them.

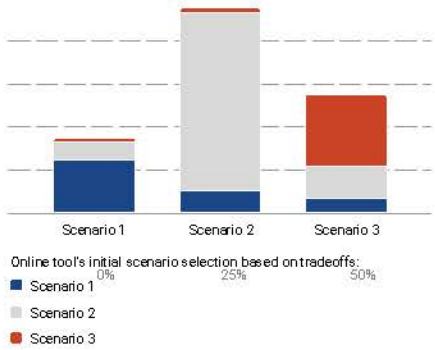
Scenario 2 was the preferred scenario in every county in the SEPTA service area except Bucks and Chester County. The frequent service in Scenario 2 does not extend into these two counties. Scenario 3 was preferred by the second largest group, but more than a third of respondents who chose Scenario 2 were matched with one of the other scenarios. Quite a few people felt conflicted—many people chose a different scenario than the quiz suggested as the best match for their preferences.

Most respondents who chose a scenario other than the one suggested ultimately voted for Scenario 2 as their preferred scenario.

In the online tool, we heard from regular Regional Rail riders but also from people who occasionally or never ride. As with our earlier survey, the users were of a similar makeup to Regional Rail riders today: more likely to be male, white, high income, and own a car.

Respondents were from all over the region, but primarily in zip codes that currently have Regional Rail service. Several areas that have service today did not receive high levels of engagement in the online tool.

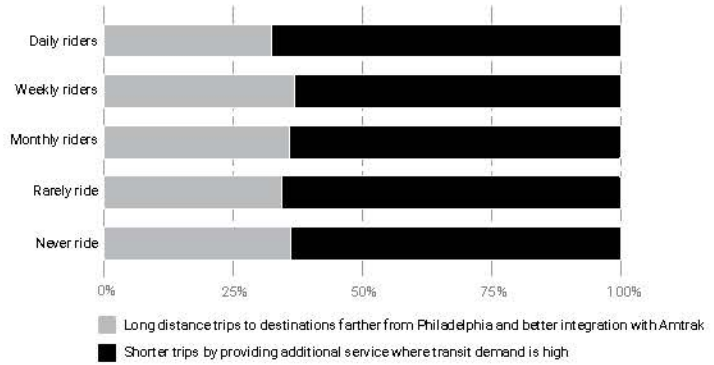
Phase 2 Submitted Scenario Totals

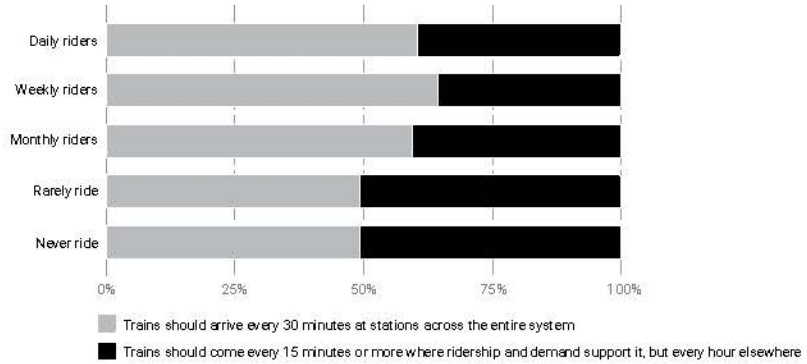


Scenario Preferences, By Home Geography

Area	Responses	Scenario 1	Scenario 2	Scenario 3
Pennsylvania	2,137	23%	57%	20%
Philadelphia County	1,244	20%	65%	15%
Bucks County	111	39%	32%	29%
Chester County	134	33%	26%	41%
Delaware County	215	23%	56%	21%
Montgomery County	416	26%	49%	25%
All Other PA Counties	17	6%	59%	35%
New Jersey	42	29%	60%	12%
Delaware	27	22%	44%	33%
All Other States	64	8%	78%	14%
Total	2,322	23%	57%	20%

People preferred SEPTA to focus Regional Rail on shorter trips where demand is high





Providing 30-minute frequency everywhere benefits current riders—but potential new riders are more likely to value 15-minute frequency in some places. Those who ride Regional Rail regularly are slightly more likely to prefer 30-minute service everywhere rather than more frequent service only where demand is highest.

In general, people prefer some express service, but there is a strong desire for all stops to have service. Across all types of users, people want SEPTA to focus on a Regional Rail that serves shorter trips where demand is high.

We followed up with underrepresented groups, and they also preferred Scenario 2.

Most online survey respondents were consistent with the type of people who currently and historically have ridden Regional Rail—primarily white, high-income, and relatively young. While this captures the people that Regional Rail is currently working the best for, this phase of outreach was missing the voices of those who could benefit the most from a redesigned network. The second phase of outreach included a variety of community workshops targeting those communities.

Community workshops were held in West Philadelphia, North Philadelphia, Norristown, and Chester, with 109 total participants giving their feedback. Participants were a blend of non-riders and riders who use the system occasionally or just for commuting.

Common barriers to non-riders or challenges for riders that were brought up include:

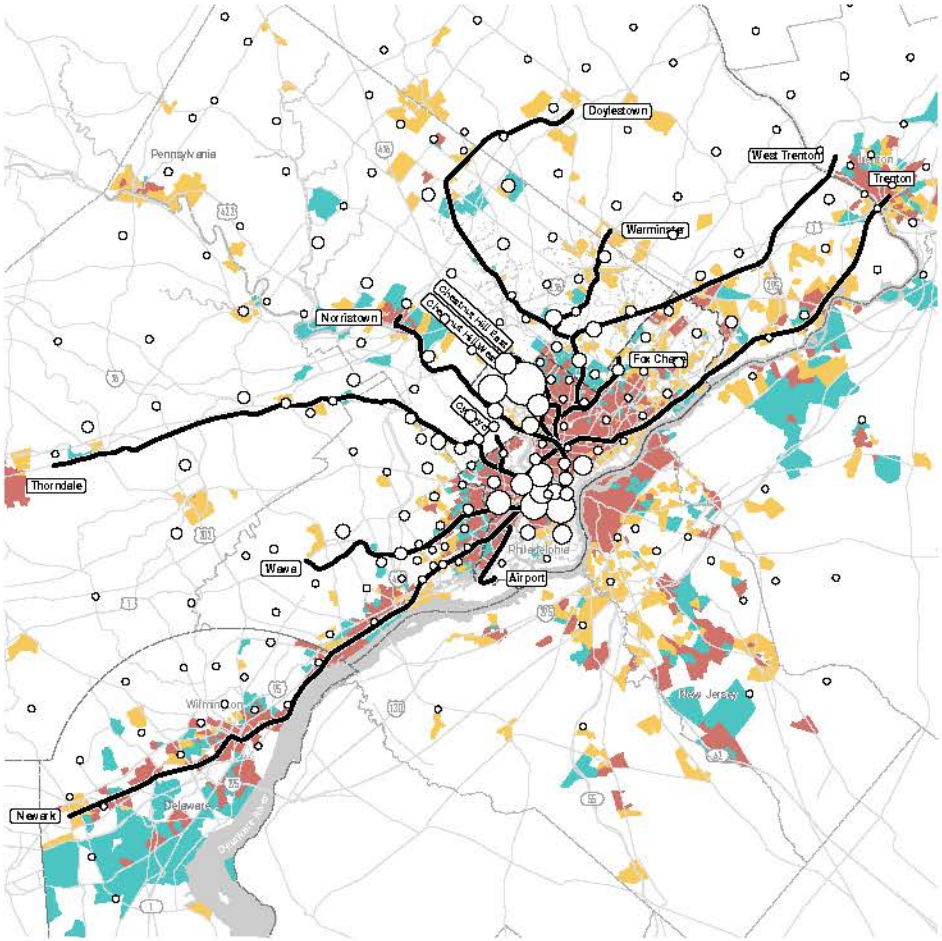
- Lack of frequency, particularly outside of peak periods and on weekends.
- Limited span of service. Service does not extend late enough into the evening.
- High fare prices. Affordability is a major barrier.
- Difficulty accessing stations and feeling safe and secure while waiting for service.
- Complex and confusing service. People don't know how to interpret schedules or transfer to other services.

Proposed changes to the system were perceived positively. In general, people want to use Regional Rail more and they feel that the proposed improvements would help them do it. However, there is skepticism about the feasibility of the proposed changes, and concerns about timeliness. This is related to the historical lack of trust in the system. People want future plans to look at service holistically and include improvements to wayfinding, safety and security, easier fare payment options, and real-time information to help make service more usable. From the perspective of business development participants, more frequent service in the future would be tied to better job access.

Overall, participants and survey respondents showed overwhelming support for Scenario 2.

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Number of Responses to Phase 2 Online Tool

- 5
- 50
- 100

Proportion of Minority & Low-Income Populations Compared to the Regional Average

- Minority Population Above Average
- Low-Income Population Above Average
- Both Populations Above Average

Minority is defined in the ACS as everyone who is not white alone and not Hispanic.

1:500,000 2019 ACS 5-Year Surveys, SEPTA

0 5 10 20 miles

Extensions do not have the same ridership potential as providing more service on the existing network.

The Greater Philadelphia commuter rail network was once significantly larger, with lines to West Chester, Reading, Allentown, Newtown, and Jersey City. There have been occasional proposals to reopen some of these lines, but extensions are significant capital projects, and, ultimately, all proposed extensions must be evaluated against the potential of upgrading service on existing lines.

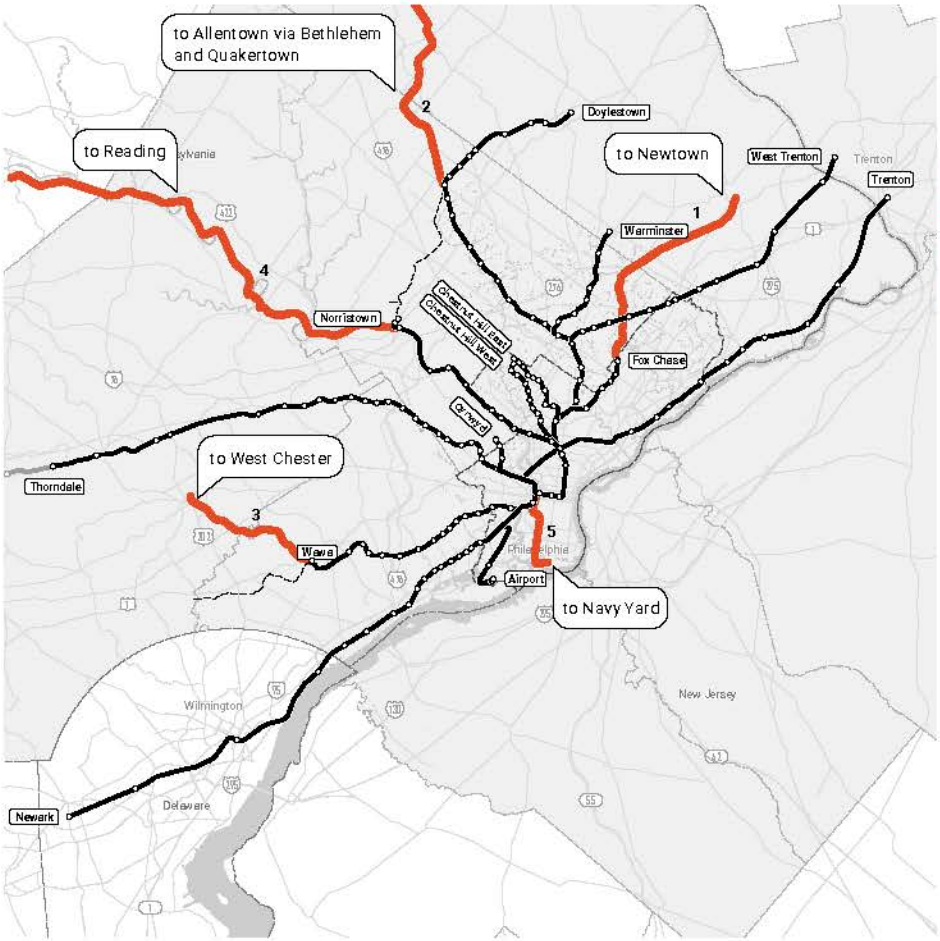
SEPTA discontinued service on nearly 150 miles of commuter rail service in the 1980s, much of it diesel-powered lines with infrequent services. We own the right-of-way on some former lines: the Media/Wawa Line to West Chester, the Fox Chase line to Newtown, and the line from Lansdale towards Bethlehem. While the track is often still there, considerable reconstruction and new stations would be required to operate the service.

At the request of the City of Philadelphia, an extension to the Navy Yard using the 25th Street Viaduct was also evaluated. This extension is unique as it had no former regular passenger service and is currently used for freight service. Due to the novel nature of this concept, there are no previous detailed studies or ridership estimates that could be used as a baseline. However, demand along this corridor is strong, as evidenced by the complementary Bus and Metro services that exist cross South Philadelphia. There are several challenges along that corridor that would need further study, including how the service could work with existing freight service and how passenger service would connect into the rest of the SEPTA system at/around Penn Medicine and 30th Street Stations.

Extensions are significant capital projects. For example, the 3.5-mile extension to Wawa, with a new station, parking garage, and layover yard, cost approximately $200 million. While many extensions have been proposed in the past, only those within the DVRPC boundary (which would make them eligible for local funding) were assessed.

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Evaluated Expansion Projects

Evaluated Restorations

1. Fox Chase to Newtown
2. Lansdale to Allentown (via Bethlehem, Quakertown)
3. Wawa to West Chester (Service to Wawa restored in 2022.)
4. Norristown to Reading
5. 30th St. to Navy Yard (no former regular passenger service)

SEPTA Regional Rail lines

SEPTA Regional Rail station

Other SEPTA owned railroad lines

DVRPC region

1:500,000 SEPTA

0 5 10 20 miles

Extensions do not have the same ridership potential as providing more service on the existing network.

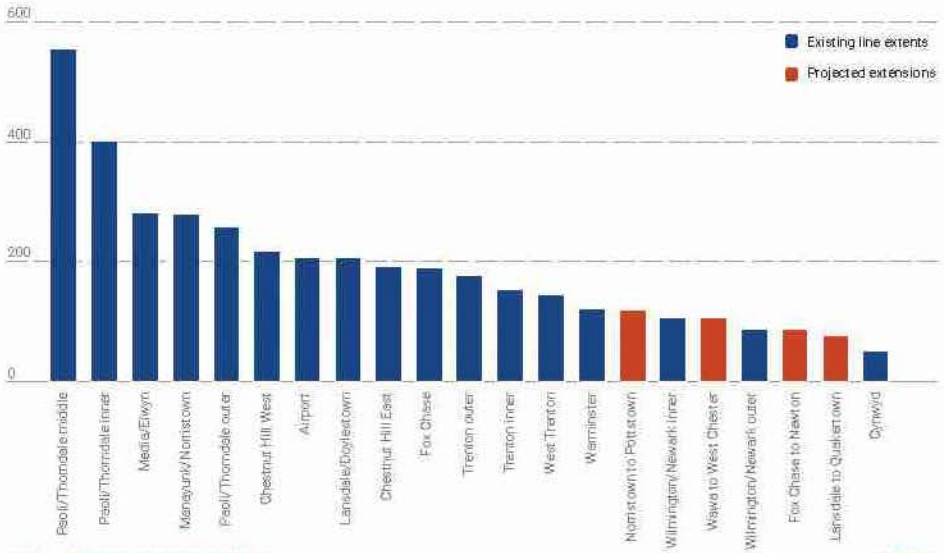
Ridership projections were used to understand the potential for these routes, with the ultimate finding that ridership is relatively low on all analyzed extensions. Overall, these extensions combined would involve increasing the total miles of rail by 22% with only a 9% increase in ridership. The three scenarios assessed in Phase 2 of this project, all three of which improved service only on existing, active lines, had overall ridership increases ranging between 71% and 121%

Three of the extensions have lower projected ridership per mile than most existing lines, including some lower productivity segments like the outer section of the Wilmington\Newark Line. Norristown to Pottstown showed the highest ridership potential.

Additionally, it's very likely that many potential SEPTA riders in the extension regions use Regional Rail and simply drive to an already existing station. It's possible that some of the projected future ridership is actually just shifted ridership.

Given the low ridership and high-cost associated with the assessed extensions, it's a better investment and more aligned with SEPTA's goals to prioritize investments and improvements for the existing network. If extensions are re-assessed moving forward given current funding sources and constraints, the costs and benefits of implementing extensions should be compared to the costs and benefits of improving the current system as well as implementing bus service in these areas instead of rail given the relatively low demand in the potential service areas.

Regional Rail 2019 Weekday Ridership per Mile (Real and Projected for Extensions)





Amtrak at Harrisburg



CSX at Navy Yard



Norfolk Southern on Reading Line

Regional partners are actively pursuing rail expansion connecting to or extending SEPTA services.

Due to limited funding and relatively high cost of extension projects, SEPTA is not advancing any extensions of service as a part of the Network Vision (except for restoration of service to Coatesville which will use a shared station with Amtrak and largely use existing infrastructure for operations).

However, partners across the region are making efforts to expand access to rail services to improve connectivity within our region and create new connections to activity centers beyond the SEPTA service area. SEPTA will continue to work with our partners across the region to provide technical support, coordination on service concepts, and evaluation of potential integration with SEPTA's Network Vision.

Some of these potential extensions have been identified through the FRA's Corridor ID Program and have established project sponsors responsible for advancing the initiative. For example, the proposed Reading-Philadelphia intercity rail line has an established organization in the form of the Schuylkill River Passenger Rail Authority (SRPRA) that is actively advancing through steps in the Corridor ID Program.

Restoration of service to West Chester

Restoration of service along SEPTA's West Chester Branch via an extension of SEPTA's Wawa Line or a novel, rail-shuttle service.

Restoration of service to Reading

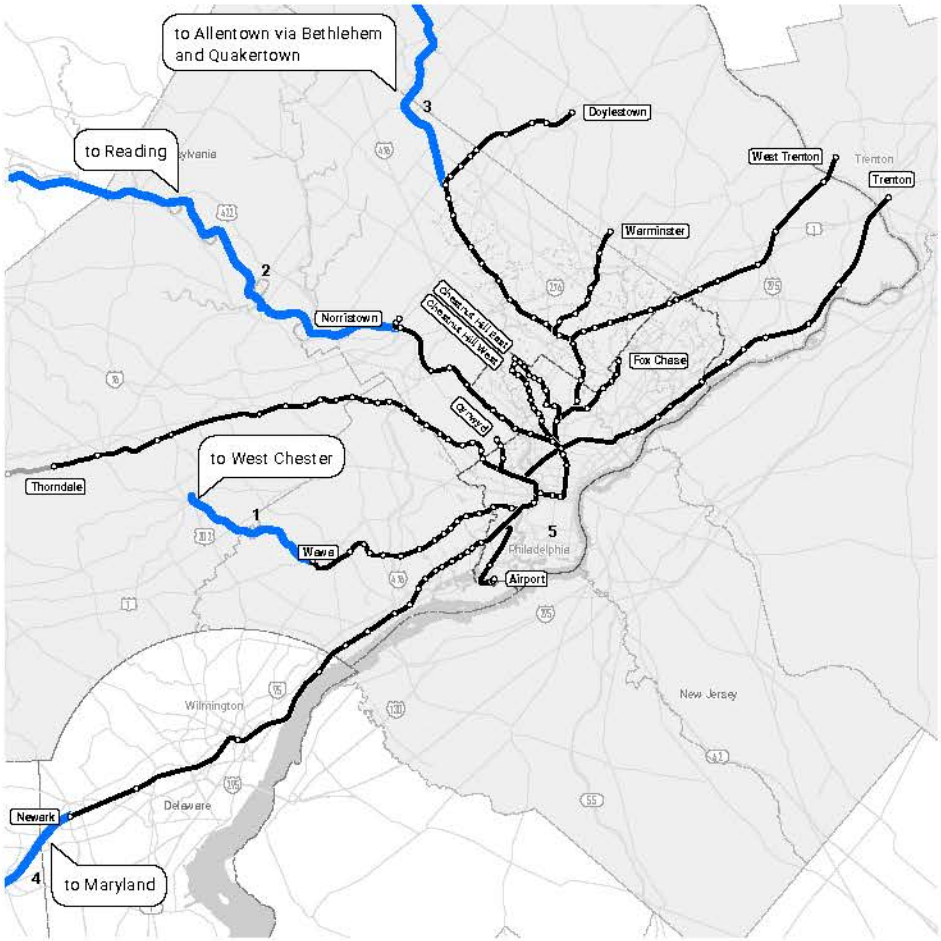
Restoration of intercity service to Reading with connections to Philadelphia and New York City

Restoration of service to Lehigh Valley

Restoration of intercity service to the Lehigh Valley to/from either New York City (via New Jersey) or Philadelphia

Perryville, MD to Newark, DE "Gap Filler"

Extension of MARC Commuter Rail service from its current terminus in Perryville, MD to Newark, DE in order to close the only "gap" in commuter rail service along the Northeast Corridor between SEPTA and MARC to the south



Regional Partner Projects

Proposed projects

1. Restoration of service to West Chester
2. Restoration of service to Reading
3. Restoration of service to Lehigh Valley
4. Perryville, MD to Newark, DE "Gap Filler"

SEPTA Regional Rail lines

SEPTA Regional Rail station

DVRPC region

1:500,000 SEPTA

0 5 10 20 miles

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Infill stations in the right locations could boost ridership. Six infill stations are identified as potential opportunities.

As an optional addition to the Network Vision, six infill stations are proposed for future consideration: Logan, Nicetown, Tioga Crossing, 62nd Street Station, 52nd Street Station, and Girard Avenue Station. The six infill stations are all in locations that have been previously served by transit and that have extremely high demand for frequent transit.

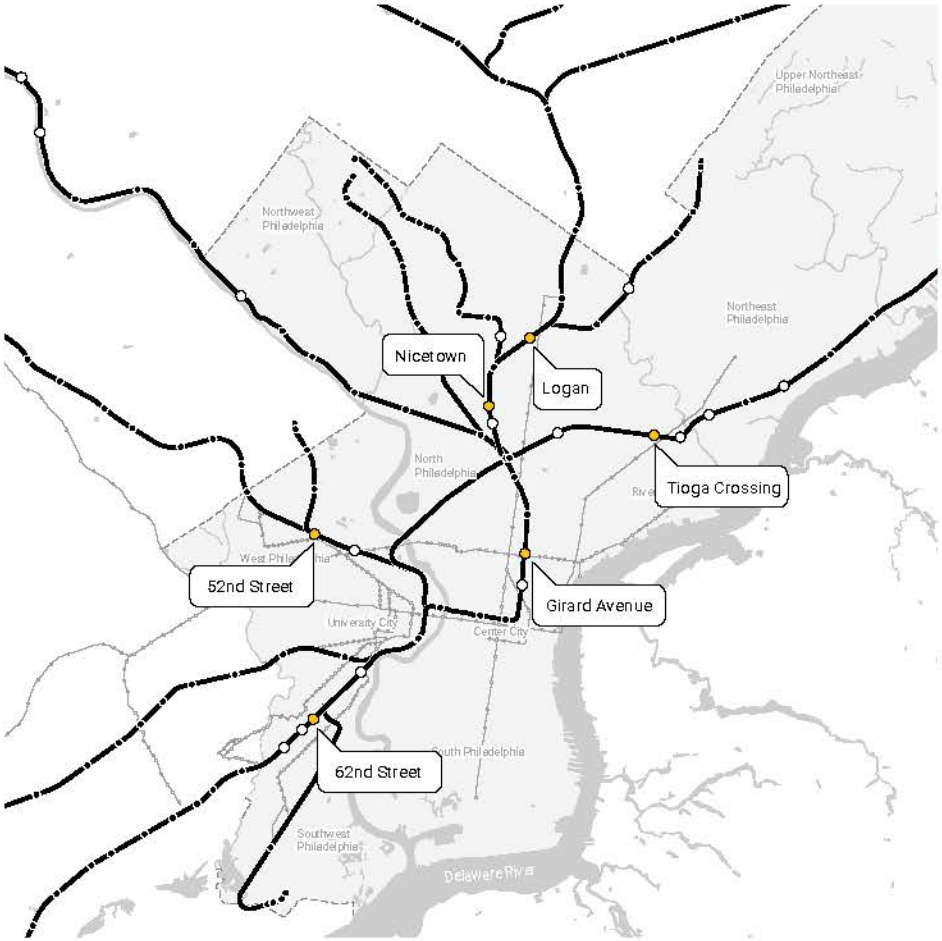
A list of 24 potential infill station locations were selected and evaluated based on five filters: underlying demand, recommended rail frequency, bus transfers, and service overlap. The 18 stations evaluated, but not identified as optional infill stations did not align with the goals and principles of the Network Vision. Nevertheless, SEPTA will re-consider those stations among others along their respective corridors during a corridor-level, alternatives analysis study to more fully analyze, recommend, or dismiss infill stations within the corridor study's framework.

The underlying demand was evaluated to determine which stations could support at last 30 MAX rail service; those that could not were filtered out because the investment is appropriate. Stations along corridors with less than 30 MAX service recommended in the full network vision were also filtered out.

If a potential station is currently served by frequent service (frequent bus or Metro) it was determined to have existing transit propensity that may warrant additional connections with an infill station. Six potential stations were ultimately identified with high ridership and connectivity potential.

These infill stations are not necessary for the service improvements outlined in this plan, so they are proposed for future consideration as the Network Vision is realized. While not necessary for reliability and operational improvements, they can significantly improve access to the network and ridership, and are worth consideration as a part of line-by-line analysis. Factors in this analysis can help guide infill station choice in the future as the region develops and demand changes and partners may offer support. SEPTA will work to identify potential right-of-way needs and advance projects in a manner that do not preclude these infill stations where practical.

Infill stations could be considered as part of a future public-private partnership to help finance an infill station and induce transit-oriented community development.



Potential Infill Stations

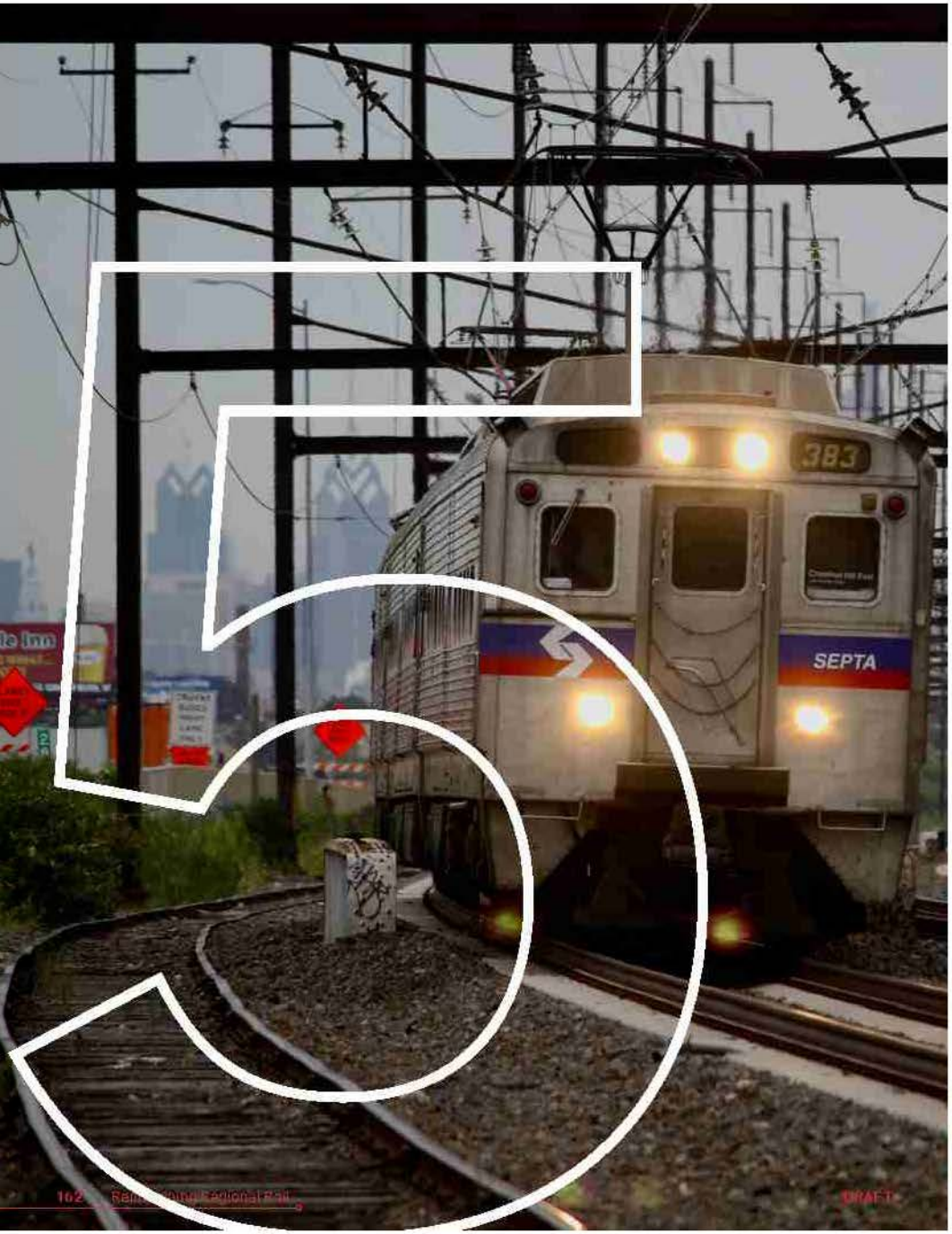
- SEPTA Regional Rail lines
- Six optional infill stations
- Other evaluated infill stations
- SEPTA Metro routes

1:150,000 SEPTA

0 1 3 6 miles

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Reimagining Regional Rail

Network Vision

Vision Summary

The Network Vision creates a lifestyle network that will work for all types of trips across the region, providing consistent, integrated, and reliable all-day all-week service to all corners of the existing rail service area.

Branding: SEPTA Regional and SEPTA S Lines need to be easy to ride and easy to understand.

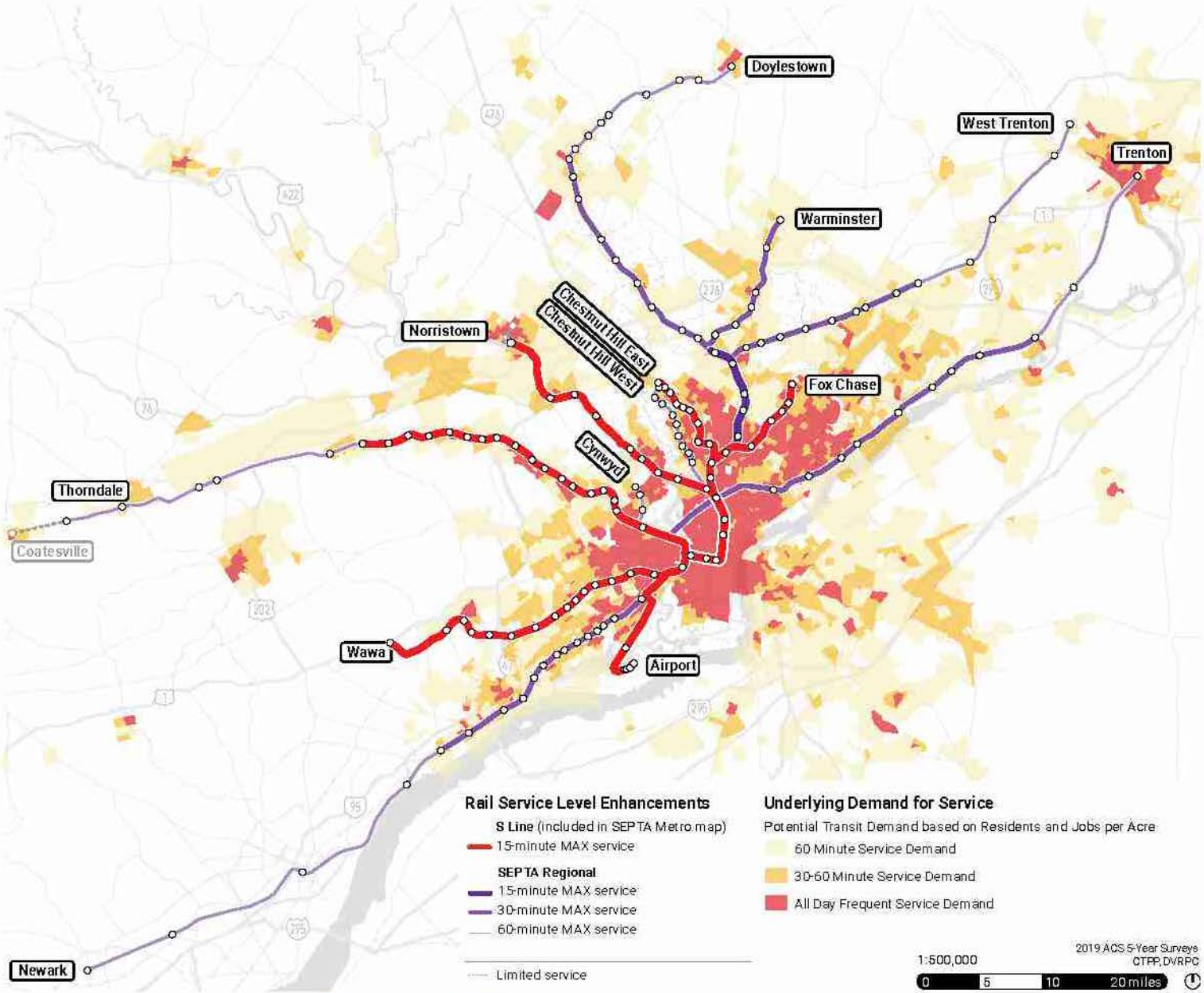
Service Standards: Consistent easy-to-understand service is an essential part of the Network Vision.



Vision Summary

Many Regional Rail stations are located in dense, walkable places that have the underlying transit demand to support all-day frequent service – our region literally grew up around the railroads.

While Regional Rail has traditionally focused on getting people to Center City at rush hour, there are other destinations like universities, hospitals, retail, and other employment centers across the network, many of which have all-day demand. The Network Vision provides more consistent, integrated, and reliable service for everyone with more frequent services where demand warrants it. The Network Vision is not only based on feedback, historical ridership patterns, and an evaluation of infrastructure constraints, but it incorporates the forecasted population and employment growth across our region for decades to come. Realizing the Network Vision will ensure that SEPTA's Regional Rail system is meeting the needs of today and tomorrow.



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Reimagining Regional Rail

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Phasing

Phasing Overview

The vision for Regional Rail will be realized in phases that increase service as capital projects are completed.

Consistent easy-to-understand service is an essential part of the Network Vision.

Early Action: Today-2030

Phase 1: 2030-2035

Phase 2: 2035-2040

Phase 3: 2040-2045



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Phasing Overview

The Network Vision will be realized in phases that increase service as new infrastructure is built.

The Network Vision shows a transformed Regional Rail system - that can't happen overnight. It requires extensive infrastructure projects, additional funding, new operating practices, and extensive coordination with partners like Amtrak.

The scope of change, though, is entirely within the scale of what other agencies have recently completed: Denver built 53 miles of electrified commuter rail from scratch in less than 15 years. Much of this work also has to be done regardless; trains will need to be replaced, tracks rehabilitated, bridges upgraded, signal systems replaced, and catenary reconstructed just to operate the service that SEPTA operates today.

It's also imperative, nearly 35 years after the passage of the Americans with Disabilities Act, that we continue to focus on making the system fully accessible to people in wheelchairs and with other mobility, cognitive, visual, or auditory disabilities. The Network Vision prioritizes those projects to transform the system to be even more productive by serving many more people of all abilities.

This Network Vision can be achieved be splitting the projects into phases, focusing infrastructure projects on specific lines, then increasing service as these projects are completed. If we can focus capacity on implementing a steady stream of projects over several decades, riders will regularly see service improvements.

SEPTA will advance shorter-term policy changes that make fares better integrated with Metro and Bus services and more attractive for shorter trips. We will build on recent improvements to SEPTA Metro branding and signage systems by incorporating best practices into Regional Rail signage at stations and digital components across the entire customer journey.

Network Vision Phasing



Prioritizing Capital Investments

SEPTA spends approximately $300 million every year to maintain a safe and reliable system. We will continue to prioritize capital investments that address safety, provide operational benefits that are realized by our riders, and build towards the service goals established in the Network Vision. Together, these priorities will ensure that we are building a system that is more useful to more people.

System Safety

Safety is paramount in everything we do when improving Regional Rail systems. It is the foundation for all decisions, ensuring that both riders and operators are protected. Prioritizing safety leads to projects that strengthen the overall system, such as upgrading outdated infrastructure to prevent wear and tear, enhancing station environments with better lighting and security, and improving accessibility to ensure safe passage for everyone. By focusing on these areas, we build a system that fosters trust and reliability, making sure that every journey is as safe as possible for all who use and operate the rail system.

Operational Benefit

Investing in infrastructure that delivers operational benefits is key to improving service reliability and efficiency. By upgrading outdated systems and reducing bottlenecks, we enable faster trips and enable more frequent service. Projects such as modernizing tracks, signals, and stations streamline operations, allowing for smoother and more consistent service. Enhanced infrastructure supports the capacity to run more trains, while minimizing delays. This commitment to operational improvements fosters a Regional Rail system that is more efficient, more dependable, and capable of delivering more service for everyone.

Service Goals

To meet our service goals, we will prioritize projects that align with the Network Vision, focusing on key upgrades to enhance system performance. High-level platforms will be essential for speeding up boarding and reducing dwell times, enabling faster and more efficient service. New interlockings will be implemented to increase system resilience, allowing for better responses during disruptions and improved maintenance. Reducing conflicts at critical junctions will ensure that trains can move through the network without unnecessary delays. These improvements will help us build a system that meets the goals set in the Network Vision.

Passenger Benefit

Prioritizing projects that deliver the most benefits to passengers is essential for improving service. By focusing on the core of our system first, we can enhance service reliability and speed up trips for more riders, providing widespread benefits sooner. Station improvements should be guided not only by ridership volume at specific stations but also by their operational impact for riders going through the station. Upgrading stations on the inner portions of lines, for example, reduces dwell times, improving travel times on the entire line. By stringing together station improvements along a corridor, we can operate faster and more efficient service.

Phase 1: 2030-2035

The first major phase will focus on improving the Airport Line and Norristown Line to 20-minute all-day service and extending more consistent Regional service to Fox Chase, Warminster, and West Trenton.

2030-2035

The Airport Line had baseline service (2019) every 30-minutes from 5 am to midnight on weekdays and weekends. The Manayunk/ Norristown Line had baseline service (2019) every 30 minutes during the peak and hourly off-peak and weekends. Increasing frequency to every 20-minutes along this corridor will improve critical connections between the Philadelphia Airport, Center City, and destinations across the entire region.

This phase also includes improvements along the Fox Chase, Warminster, and West Trenton lines to ensure consistent, all-day service with additional peak trains as needed.

As these lines are being implemented, we will continue work on modernizing existing maintenance facilities and yards and building new ones. We will also continue to upgrade stations to accessible level boarding.

The Manayunk/Norristown Line has seen strong ridership growth over the past 15 years and the growing, mixed-use communities like Norristown, Conshohocken, and Manayunk have resulted in more all-day, bi-directional ridership. Increasing service to every 20-minutes on this segment will better serve the all-day demand and promote access to jobs and destinations along this corridor. The airport is a major regional destination and employment center and more frequent service would make the line more useful to travelers as well as airport employees.

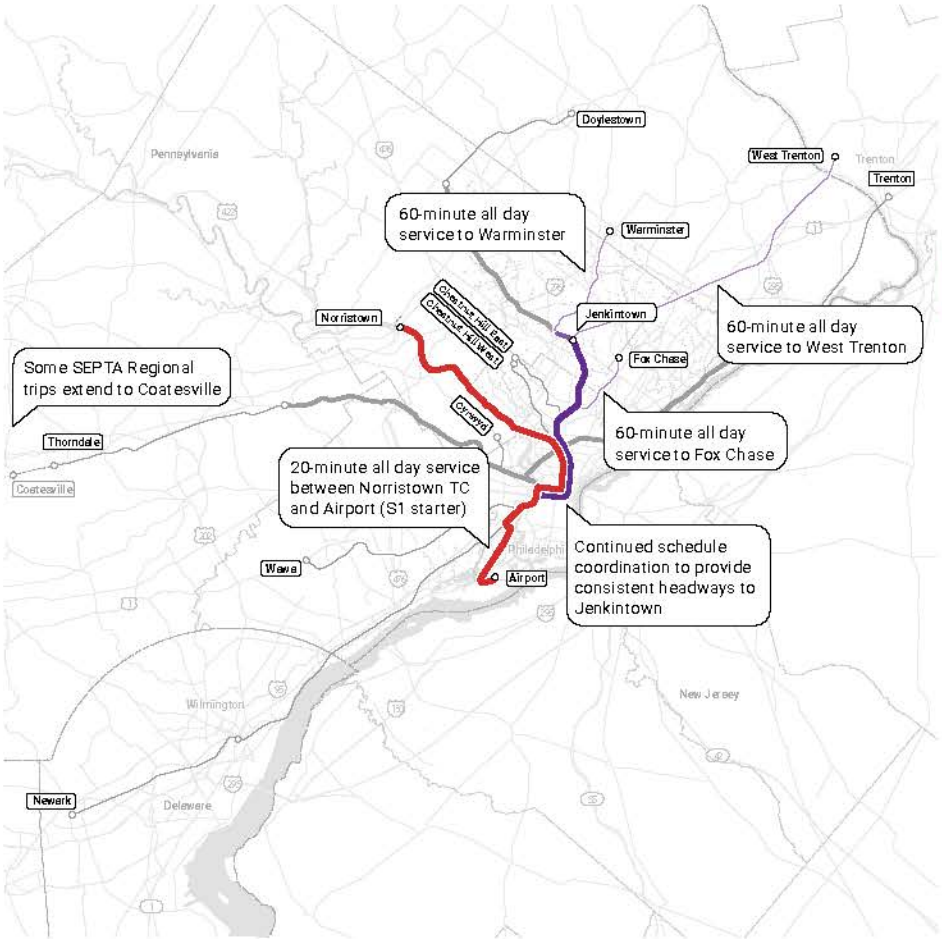
Silverliner VIs will begin revenue service during Phase 1, modernizing our fleet and replacing our oldest regional rail vehicles – the Silverliner IVs that have served our region well over the past 50 years. The new fleet will provide improved passenger experience and operational efficiency with wider aisles and doors, dedicated bicycle storage and micromobility areas, and more efficient low-energy equipment components. These features will reduce cost for additional service as it is ramped up across the network and provide modern and accessible service for all of our riders.

Train Volumes

- 8% more trains per weekday vs. 2019
- 10% trains per weekend day vs. 2019

Fleet Composition

- Silverliner VIs start running in revenue service
- Silverliner IVs begin to be retired



Rail Service Level Enhancements

S Line
- 20-minute MAX service

SEPTA Regional
- 15-minute MAX service
- 30-minute MAX service
- 60-minute MAX service
- Limited service

1:500,000

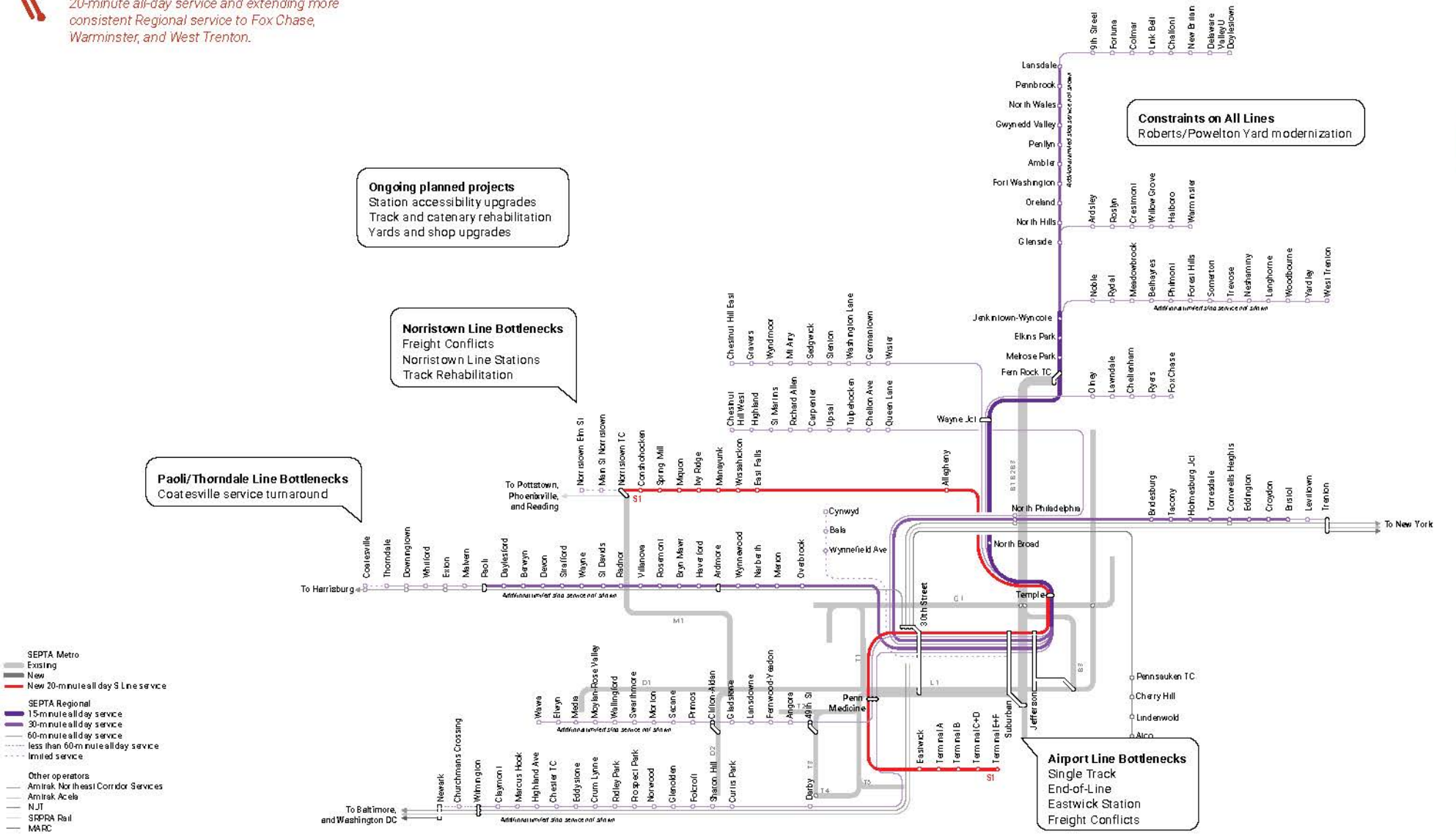
0 5 10 20 miles

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Phase 1: 2030-2035

The first major phase will focus on improving the Airport Line and Norristown Line to 20-minute all-day service and extending more consistent Regional service to Fox Chase, Warminster, and West Trenton.



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Several bottlenecks on the Airport and Norristown Lines needs to be addressed to start S1 service, and new infrastructure allows service to Coatesville.

Airport Line: Single Track

The Airport Line has a 2-mile segment of single track from 60th North to PHIL. This segment includes the SEPTA-only connecting line to the airport, the overpass over the Northeast Corridor, and a segment of single track alongside the Northeast Corridor under the CSX railroad bridge. This inherently limits train frequencies since only an inbound train, or an outbound train can be in this segment at once. Reliably operating a 20 MAX schedule requires this single track bottleneck to be shortened.

Airport Line: Freight Conflicts

The Airport Line shares a roughly 3-mile-long section with Conrail freight trains running on the Chester Secondary between Philadelphia and Claymont Delaware. The Conrail Chester Secondary enters on Track 2 and either crosses over to Track 1 using 60th Street South Interlocking or stays on Track 2 until 90th Street North Interlocking where it departs for Conrail Chester Secondary.

These freight movements often consist of long, slow moving trains that can block SEPTA service in both directions for up to 20 minutes. To provide 20-minute service on this corridor in a reliable manner, SEPTA service and freight movements must be separated.

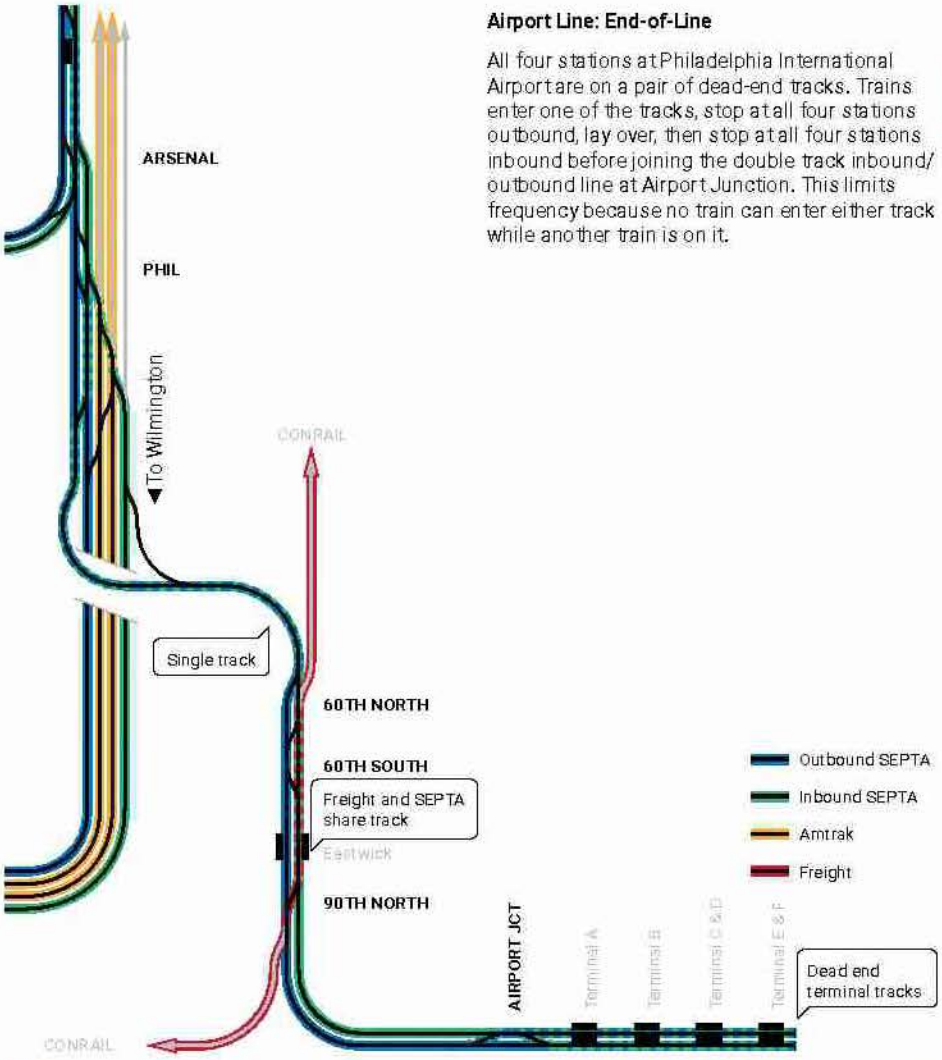
At-grade pedestrian crossing limits the line's throughput, increases dwell times, and highlights the importance that it is rebuilt as a high-level platform.

Airport Line: Eastwick Station

Eastwick Station is the only low-level platform on the Airport Line; however, it represents an opportunity to provide significantly improved connections to various transit services. The Delaware Valley Regional Planning Commission (DVRPC) completed a study in 2020 that evaluated options for improving Eastwick Regional Rail Station into a true intermodal hub, including extending the T5 (Route 36) trolley, consolidating bus service, and improved park-and-ride amenities. Depending on the method of freight separation along the Airport Line, the design of the Eastwick Station will need to provide additional space and a larger pedestrian overpass.



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Airport Line: End-of-Line

All four stations at Philadelphia International Airport are on a pair of dead-end tracks. Trains enter one of the tracks, stop at all four stations outbound, lay over, then stop at all four stations inbound before joining the double track inbound/outbound line at Airport Junction. This limits frequency because no train can enter either track while another train is on it.

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Several bottlenecks on the Airport and Norristown Lines needs to be addressed to start S1 service.

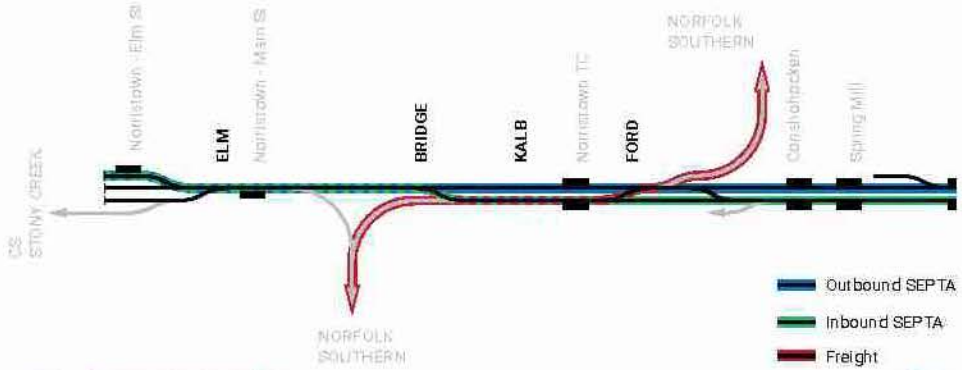
Norristown Line: Freight Conflicts

The tracks around Norristown Transportation Center are one of only a few segments in our entire system that share tracks with freight service. While we own the track and are responsible for dispatching, we must allow for freight movements through Norristown Transportation Center to provide a connection between the Norfolk Southern's Morrisville Line (to Trenton) and Harrisburg Line (via Reading).

Freight trains heading west join the Norristown Line on Track 2 at Ford Interlocking, cross over to Track 1 to travel through Norristown Transportation Center, and head west to the Harrisburg Line via a bridge over the Schuylkill River. While these freight movements are not frequent, they are typically very slow moving and can back SEPTA service in both directions. Freight traffic sharing track through a station also makes the implementation of a high level platforms very technically challenging. In order to provide reliable service more frequently than every 30-minutes on this line, freight service must be separated from SEPTA service by adding a third track.



Freight traffic at Norristown TC



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Norristown Line: Stations

Today, nine of the stations on the Norristown Line have low platforms. Eight of these are inaccessible to riders in wheelchairs; one requires them to use a mini-high platform. These low platform stations make the service harder to use for all passengers since they require climbing up steps into the train. They also lead to long dwell times in stations, making the service slower and less reliable, and require the train to be staffed with additional assistant conductors.

Nine station upgrade projects would make the Norristown Line all high platform; along with the Eastwick station project these would make the Airport to Norristown—the future S1—all high platform. Several of these stations are already funded in SEPTA's current Capital Program.



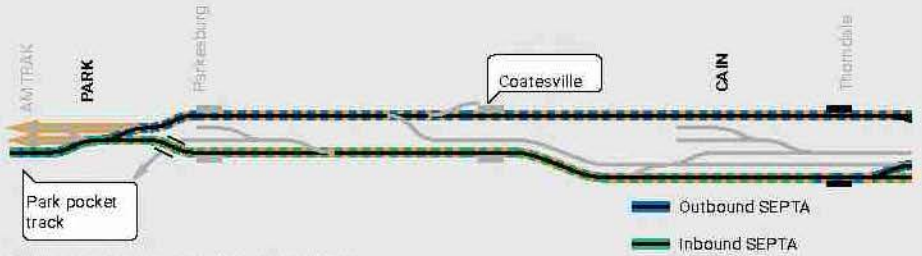
The Airport and Norristown Lines together have 5 stations that are funded for accessible stations with High-Level Platforms in the SEPTA 12-year Capital Program, leaving 5 stations to be funded for full accessibility on the S1.

North Broad to be served by SEPTA Regional lines during initial S1 roll-out.

Paoli/Thorndale Line: Coatesville service turnaround

SEPTA is committed to extending Paoli/ Thorndale Regional Rail service to Coatesville.

To provide cost efficient service, an interlocking is required past Coatesville. Amtrak, SEPTA, and PennDOT are coordinating on changes to Park Interlocking which will include a turnback pocket that will allow for trains to reverse direction.



Programed track layout at Park pocket track in collaboration with Amtrak's Keystone Masterplan

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Phase 3: 2040-2045

The third phase increases service on the Wilmington Line to Marcus Hook and Newark. Meanwhile, the Villanova-Temple S3 will be implemented with entirely high platform stations and the Norristown-Airport S1 is upgraded to full SEPTA Metro 15-min MAX standards.

2040 - 2045

Improved service on the Airport-Norristown Line is projected to continue to increase ridership. This phase increases service levels to match. 15 MAX service also makes bus transfers easier, further integrating the line into the transit system. The line was operated as a 20 MAX service in Phase 1 due to the remaining bottlenecks. Those are addressed in this phase, allowing 15 minute service. This scales service up as demand continues to grow on this corridor with new development and riders taking advantage of improved service.

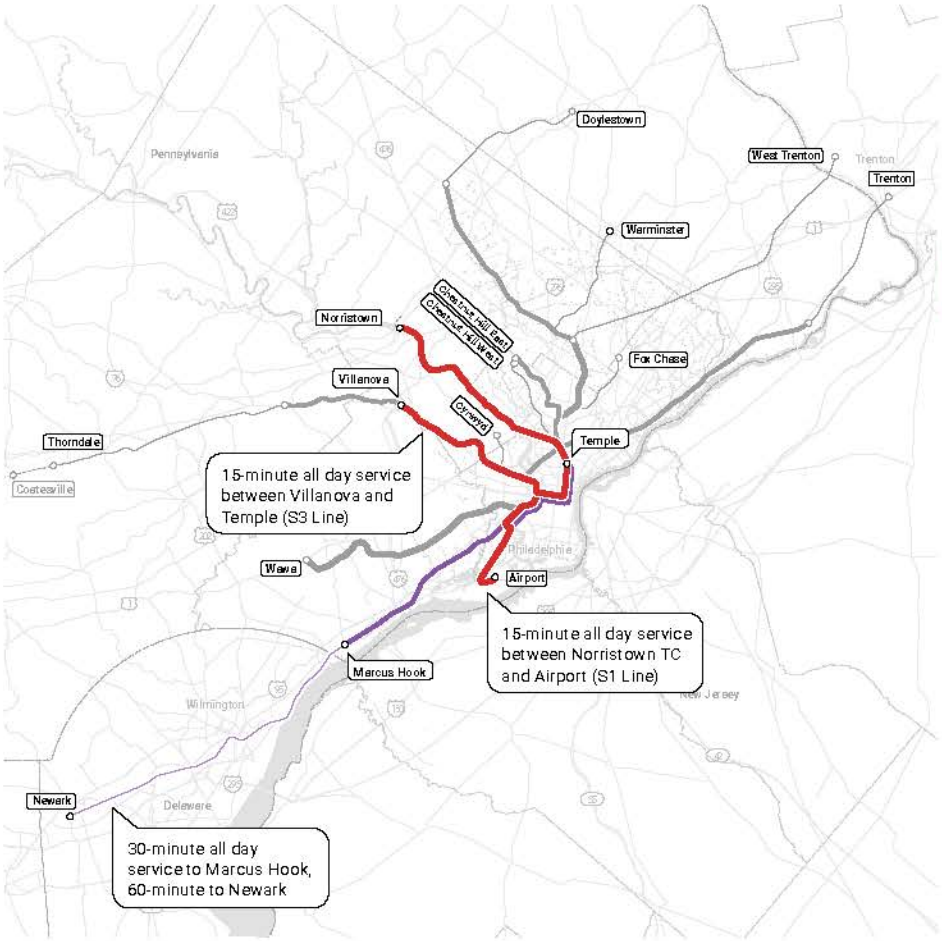
30 MAX service on the Wilmington/Newark Line, which will benefit many residents, including low income residents. This line has significant residential density and connects an important bus hub in Chester to Center City. The PHIL bottleneck that limits service on the Airport Line also limits service on the Wilmington/ Newark Line. Infrastructure improvements allow 30 MAX to Marcus Hook. Coordination and funding from the state of Delaware can improve service frequency beyond Marcus Hook. Further coordination with Amtrak may also improve service and fare integration options on the Wilmington Line.

The high ridership on the Paoli/Thorndale corridor justifies prioritizing upgrades there. Villanova-Temple already has 15 MAX service in Phase 2, but without full station improvements that does not meet S Line standards. Upgrading all stations to level boarding allows for faster, more reliable service. This also allows the simplification of peak hour service, with the same service patterns operating all day every day. This service operates through the Center City serving accessible stations at least as far as Temple.

We will continue upgrading yards and maintenance facilities. A new yard in Delaware would make the service improvements on the Wilmington/Newark Line easier and more cost-effective to operate.

Train Volumes

- 70% more trains per weekday vs. 2019
- 94% more trains per weekend day vs. 2019



Rail Service Level Enhancements

S Line
- 15-minute MAX service

SEPTA Regional
- 15-minute MAX service
- 30-minute MAX service
- 60-minute MAX service
- Limited service

30-minute service can extend to Wilmington if funded by state of Delaware.

1:500,000

0 5 10 20 miles

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Exhibit G
Map of NS-SEPTA Norristown Interface

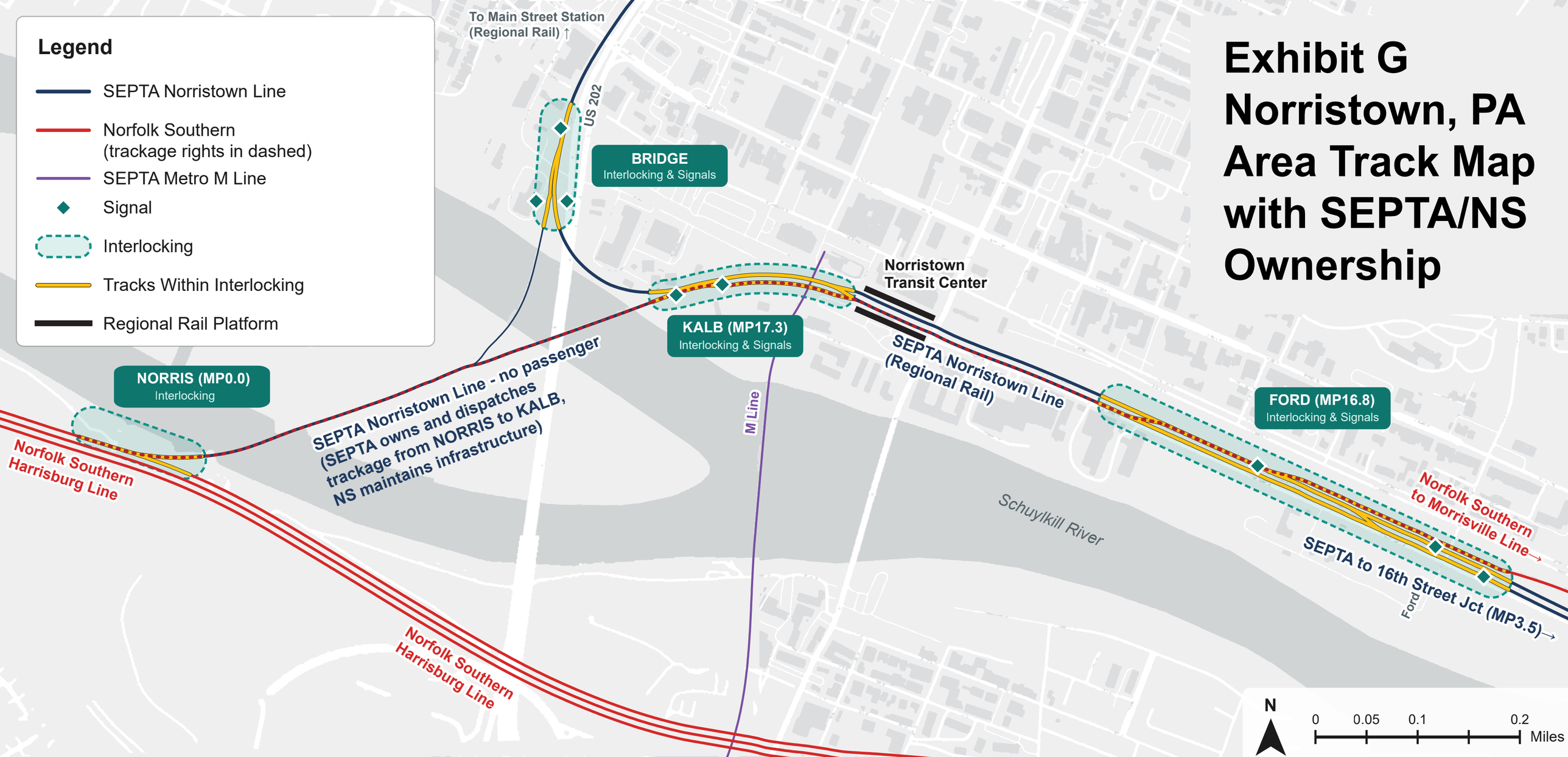


Exhibit G Norristown, PA Area Track Map with SEPTA/NS Ownership

Exhibit H
Trackage Rights Agreement (excerpted)

EXECUTION

TRACKAGE RIGHTS AGREEMENT

BETWEEN

SOUTHEASTERN PENNSYLVANIA
TRANSPORTATION AUTHORITY

AND

CONSOLIDATED RAIL CORPORATION

EFFECTIVE DATE: October 1, 1990

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Section 2.02 Access to Conrail Rail Properties

(a) Conrail hereby grants to SEPTA, subject to the provisions of this Agreement, the right to enter upon and utilize tracks and related operating facilities located on Conrail Rail Properties listed in Exhibit 2 for the purpose of performing the SEPTA commuter rail service, as set forth in SEPTA's public timetables in effect on the effective date of this Agreement, adjusted by SEPTA from time to time, and securing SEPTA Rail Properties and equipment.

(b) Conrail retains its right to use, or permit another person or persons to use, Conrail Rail Properties for any rail purposes, provided that such utilization does not interfere with SEPTA's Trackage Rights.

Section 2.03 Changes in Use of Rail Properties

If there are changes in the scope or nature of services operated over SEPTA Rail Properties or Conrail Rail Properties, Exhibit 1 and Exhibit 2 shall be revised from time to time as the parties shall agree to reflect such changes.

ARTICLE III

MANAGEMENT AND OPERATIONS

Section 3.01 SEPTA Rail Properties

(a) SEPTA retains the right to establish the overall policies governing the management and operational control of all rail service over SEPTA Rail Properties, including, but not

limited to, the dispatching and control of all trains. SEPTA's right shall not be exercised in a manner which would unreasonably interfere with Conrail's Trackage Rights.

(b) The scheduling and movement of SEPTA passenger trains shall take preference over all other train scheduling and movements.

(c) Conrail's freight operating rights described in this Agreement are for the purpose of permitting Conrail to operate road and local freight trains, as well as switching movements, special trains, locomotives, and other on-track equipment. Conrail shall have access to all running, side, switching, public delivery (team), yard, and interchange tracks included in SEPTA Rail Properties necessary for the provision of this freight service, including the right to store equipment, provided that such access shall not unreasonably interfere with SEPTA's existing or planned uses.

(d) Conrail shall have the right to amend and increase the level of its freight service, provided, however, that the character, scheduling or extent of the freight service shall not unreasonably interfere with SEPTA's existing or planned uses of SEPTA Rail Properties.

(e) Conrail may perform special and emergency transportation services, provided that the operations will not unreasonably interfere with SEPTA's uses. Exhibit 3 indicates the clearances as of December 1, 1989 on SEPTA Rail Properties. SEPTA has and will promptly notify Conrail of any modifications of these clearances. If any restrictions on clearances imposed

by SEPTA after the effective date of this Agreement are more restrictive than the clearances set forth in Exhibit 3, and if such restrictions require alteration of SEPTA facilities in order to permit Conrail to move freight shipments, such alteration shall be at SEPTA's expense. If a freight shipment exceeds the clearances on Exhibit 3, and requires alteration of SEPTA's facilities, such alteration shall be at Conrail's expense. "Facilities" as used in this Section 3.01(e) includes, but is not limited to, catenary wire, electric traction facilities and high level platforms located on SEPTA Rail Properties, including those properties listed on Exhibit 2, Category A.

(f) With prior notice to Conrail, (i) SEPTA reserves the right to operate special or emergency trains over Exhibit 1, Category A Properties subject to such reasonable operating restrictions as may be required by the conditions of the properties, and (ii) SEPTA reserves the right to operate high rail inspection trips over such properties.

Section 3.02 Conrail Rail Properties

(a) Conrail retains the right to establish the overall policies governing the management and operational control of all rail service over Conrail Rail Properties, including without limitation the dispatching and control of all trains, which right shall not be exercised in a manner which would unreasonably interfere with SEPTA's Trackage Rights.

(b) SEPTA shall exercise dispatching control of all trains on the Trenton Line (the former New York Short Line) from C.P.

EXHIBIT 1

SEPTA RAIL PROPERTIES

EXHIBIT 1
CATEGORY A
SEPTA RAIL PROPERTIES
USED SOLELY BY CONRAIL

Facilities		Track No.	Mile Posts		Sidings and Facilities
Line Code	Line Segment		From	To	
0301	Bethlehem Br.		24.4	42.0	Lansdale - Eastward and Westward switching leads. Lansdale Yard and all unwired tracks. Hatfield - Public Delivery Track. Souderton - Public Delivery Track. Telford - Middle Track. Perkasie - Frt. Yard. Rockhill - Siding. Quakertown - Eastward Siding and Frt. Yard. Quakertown - Westward Siding.
0345	*Stoney Creek Br.		0.0	9.9	Matlack Tracks. Norristown Cabinet Works.
0329	Norristown Br.		17.6	17.7	Wye Connection - Bridge - Island.
0330	Norristown Br.		0.0	1.0	Norris - Kalb.
0303	Blue Line Connecting Track		0.0	0.7	

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*Mile Post 1.5 to 9.9 - Contractual rights not subject to Conrail Freight Service Easement of 3-30-79.

EXHIBIT 1
CATEGORY B
SEPTA RAIL PROPERTIES
JOINTLY USED

Facilities		Track No.	Mile Posts		Sidings and Facilities
Line Code	Line Segment		From	To	
0328	Ninth Street Br.		3.0	6.7	High Track. Scale and Switching Lead at Wayne Jct. Centennial Track. Wayne Jct. South Side Station Switching Lead. Newtown Siding.
0329	Norristown Branch		3.5	17.3	16th Street Jct. Public Delivery Tracks. Switching Leads between 21st Street and Fox Street. Belvue Switching Lead. Wissahickon Public Delivery Track. Switching Lead between Hermit Land and Davis Street. Manayunk Public Delivery Track and Eastward Siding. Miquon Westward Switching Lead and Layoff. All Unwired tracks between Spring Mill and Plymouth Jct. Plymouth Branch between Plymouth and Property Line. Mogees Switching Lead. All Unwired track between MP 16.2 to Norristown Junction and Switching Lead.

Continued

EXHIBIT 1
CATEGORY B
SEPTA RAIL PROPERTIES
JOINTLY USED

Line Code	Facilities Line Segment	Track No.	Mile Posts From	Mile Posts To	Sidings and Facilities
0301	Bethlehem Br.		6.7	24.4	Glenside - Unwired Siding and Public Delivery Track. Oreland - East Leg of Plymouth Br. Wye. Fort Washington - Switching Lead and Public Delivery Track. North Wales - Remaining portion of East and West Sidings and Station Track. Ambler - East and West Siding and Public Delivery Track.
0324	New Hope Branch		0.0	8.4	Hatboro Station Track and No. 2 Siding.
1128	Chestnut Hill West		0.0	2.23	Westmoreland - Station Tracks. Midvale Yard - All Unwired Tracks. North and West of Main Tracks on SEPTA Property. Yard Lead between 110+39 and 118+00 on Map 3 of this Branch.
1130	West Chester Br.		2.7	10.4	Unwired Tracks - Fernwood - Yeadon - Jct. of Newtown Square Branch.

Continued

EXHIBIT 1
CATEGORY B
SEPTA RAIL PROPERTIES
JOINTLY USED

Facilities		Track No.	Mile Posts		Sidings and Facilities
Line Code	Line Segment		From	To	
0311	*Doylestown Branch		0.0	10.13	
0326	New York Branch		10.9	21.1	Standard Pressed Steel Leads and Philadelphia Electric Co. Leads. Bethayres - East Public Delivery Switching Lead. Philmont - Yards and Budd Co. Lead. Somerton - Eastward Siding.
0308	Chestnut Hill East Br.				Wayne Jct. Public Delivery North Side Switching Lead.

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*Mile Post 1.5 to 10.13 Contractual Right not subject to Conrail Freight Service Easement of 3-30-79.

Exhibit I
Norfolk Southern CRISI Grant Letter of Support

NORFOLK SOUTHERN

Norfolk Southern Corporation
Government Relations Department
3 Valley Square, Suite 200
Blue Bell, PA 19422

Rudy Husband
Regional VP
(215) 901-0252

November 28, 2022

The Honorable Amit Bose, Administrator
Federal Railroad Administration
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program
SEPTA Norristown and Airport Line Freight Separations Project

Dear Administrator Bose:

I am pleased to write in support of the Southeastern Pennsylvania Transportation Authority's (SEPTA) application for funding through the Federal Railroad Administration's 2022 Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program to design and develop two rail separation projects in the congested southeastern Pennsylvania rail network, including the physical separation of SEPTA's Manayunk/Norristown Regional Rail Line from Norfolk Southern (NS) freight operations in Norristown, Montgomery County. The shared track in this area creates a bottleneck that constrains freight and commuter traffic, and the proposed project will remove operating conflicts to the mutual benefit of both SEPTA and NS.

In the Municipality of Norristown, Norfolk Southern trains coming from the Morrisville Connecting Track operate over both eastbound and westbound track on the SEPTA Norristown Branch east of the Norristown Transportation Center, creating freight-commuter rail operating conflicts in two directions. With funding, SEPTA plans to initiate design on a project that will wholly separate its Manayunk/Norristown Regional Rail Line from NS operations, including the grade-separation of tracks. The project will also eliminate a highway-railway crossing at Ford Street and rebuild the Norristown Station with a fully ADA-accessible high-level platform at one of SEPTA's most heavily traveled multimodal transportation centers.

We are encouraged by the project's objectives, as well as SEPTA's proactive collaboration in preparation for this grant application, and we look forward to working with them and other stakeholders throughout design to ensure that the resulting project meets the needs of Norfolk Southern and our customers while also achieving broader rail efficiency and accessibility goals. SEPTA's project is consistent with the intention of the Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program, and I respectfully request your full and fair consideration of their application.

Sincerely,

Rudy Husband