NJTPA
Connecting
Communities

NJTPA NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY

APPENDIX K: Financial Element Technical Memo

DRAFT Financial Element Technical Appendix

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1. Introduction

The Financial Element provides a comprehensive overview of the financial plan for implementing the transportation programs and projects within *Connecting Communities*. The plan's financial assumptions are developed considering historic and emerging trends, including recent changes in demographic, economic, and environmental conditions, as well as exogenous factors that have the potential to significantly disrupt future available funding, project delivery costs, and transportation investment needs and priorities. This Technical Appendix provides a detailed overview of the methodology used to develop the Financial Element, as well as the underlying assumptions incorporated into the financial model used to produce the projected transportation funding and expenditures in the region over the Connecting Communities planning horizon.

2. Scenario Overview and Methodology

Connecting Communities covers a 25-year planning horizon from FY2026 through FY2050, which are segmented into three periods.

- Near-term: FY2026 through FY2029
- Mid-term: FY2030 through FY2035
- Long-term: FY2036 through FY2050

To address the uncertainty inherent with planning for long-range transportation investments spanning decades, the Financial Element contains three scenarios, reflecting different future fiscal environments.

- The **Plan Scenario** is the federally mandated fiscally constrained financial plan for *Connecting Communities*, relying on reasonably anticipated funding. The Plan is intended to be reasonable, balanced, and politically feasible, supporting a level of funding to maintain a state of good repair while providing capacity for targeted transportation improvements.
- The **Limited Scenario** is the most conservative of the three scenarios, reflecting an environment of fiscal scarcity, supporting significantly less investment than what the Plan Scenario affords, prioritizing maintaining a transportation network in a state of good repair, at the expense of fewer transportation improvements.
- The **Aspirational Scenario** reflects a fiscal environment of fiscal abundance, supporting significantly greater transportation investments than what the Plan Scenario affords, focused on widespread transportation improvements, while maintaining the existing transportation system in a state of good repair.

The methodology for developing the Financial Element incorporates the following core assumptions, which are discussed in greater detail later in the appendix.

- Near-term and mid-term funding and expenditures incorporate the FY2026 New Jersey Transportation Capital Program (TCP) that are applicable to the NJTPA region (applied for all scenarios) and a selection of Gateway Program projects not in the TCP (applied for the Plan and Aspirational Scenarios). An additional selection of Gateway Program projects that are not in the TCP is also included in the near- and mid-term as applicable (applied for the Plan and Aspirational Scenarios).
- Long-term funding is based on projections of applicable formula funding from the TCP (applied for all scenarios) and projections of historical competitive funding (applied for the Plan and Aspirational Scenarios), escalated via a combination of funding growth and cost inflation rates. Funding for an additional selection of Gateway Program projects that are not in the TCP, varying by Scenario, is also included in the long-term (applied for the Plan and Aspirational Scenarios).
- Long-term expenditures are based on Regional Capital Investment Strategy (RCIS) allocation targets (applied for the Plan Scenario) or a derivation of these allocation targets (applied for the Limited and Aspirational Scenarios), and a selection of Gateway Program projects, not in the TCP, varying by Scenario (applied for the Plan and Aspirational Scenarios).

3. Funding and Expenditure Assumptions

Funding and expenditure assumptions that are incorporated in the financial model for the near-term, mid-term, and long-term periods are described below.

a. Near- and Mid-Term Periods (FY2026 through FY2029)

In the near- and mid-term of *Connecting Communities*, all three scenarios incorporate the funding (federal, state and other funding sources) and expenditures from the FY 2026 TCP that are applicable to the NJTPA region. This includes all formula and competitive funded programs and projects (NJDOT statewide and regionwide programs, NJDOT projects, NJ TRANSIT programs and projects, and other projects), including the Gateway Program's Portal North Bridge Replacement and Hudson Tunnel Project. The Plan Scenario and Aspirational Scenarios also include additional Gateway Program projects that are not in the TCP, all of which are projected to start construction in the near- and mid-term, as shown in Table 1 below.

NJDOT programs are divided into statewide programs and regionwide programs, and NJ TRANSIT programs are considered statewide. For statewide programs, funding was

multiplied by a factor of 0.75 to reflect the NJTPA region's share of state population. Any projects that ultimately result from the Study & Development (S&D) Program are assumed to be covered by program dollars. Furthermore, only projects that are located in the NJTPA region are included in all three scenarios.

Table 1: Gateway Program Projects by Scenario

	Limited			Plan			Aspirational		
Gateway Program Project	**Near Term FY26-29**	**Mid Term FY30-35**	**Long Term FY36-50**	**Near Term FY26-29**	**Mid Term FY30-35**	**Long Term FY36-50**	**Near Term FY26-29**	**Mid Term FY30-35**	**Long Term FY36-50**
Hudson River Tunnel Project									
Portal North Bridge									
Sawtooth Bridge									
Harrison Fourth Track									
Dock Bridge									
Penn Station Expansion									
Portal South Bridge									
Secaucus Junction/ Bergen Loop									
NJ TRANSIT Storage Yard									

Source: FY2025-2029 Northeast Corridor Commission Capital Investment Plan; FY2026 New Jersey Transportation Capital Program; WSP

b. Long-Term Period (FY2036 through FY2050)

i. Funding

The long-term funding envelope for all three scenarios includes projections of all formula funding (federal, state and other funding sources) dedicated to all programs and projects (NJDOT statewide and regionwide programs, NJDOT projects, NJ TRANSIT programs and projects, and other projects) in the TCP that are applicable to the NJTPA region.

In addition to formula funding, the Plan and Aspirational Scenarios also include long-term competitive funding that the Limited Scenario lacks due to its environment of fiscal scarcity. The Infrastructure Investment and Jobs Act (IIJA) is set to expire at the end of federal FY 2026 and has provided historically significant transportation funding that future transportation infrastructure bills will likely not include. Therefore, in order to avoid

overestimating future funding levels, projected federal competitive funding in the long-term is based on historical FTA levels from FFY 2006 to FFY 2021. FTA competitive funding is projected through the long-term period (with an equivalent State match) for only the Plan and Aspirational Scenarios, with the same capital funding growth rates applied to formula funding. Only historical FTA competitive funding is considered, since FHWA funding has historically been predominantly formula based.

Specifically, projections of formula funding over the long-term are based on the annual average of ten years of formula funding in the FY2026 TCP for programs and projects. Beginning in year 11 of *Connecting Communities*, this average annual funding figure is projected over the remainder of the 25 year planning horizon by a Compounded Annual Growth Rate (CAGR) based on respective scenario funding growth rates.

Projections of competitive funding over the long-term are handled differently than formula funding. Specifically, a historical annual average (in 2021 dollars) was taken of historical FTA competitive funding to New Jersey over the period from 2006 to 2021; multiplied by a factor of 0.75 to reflect NJTPA region's 75 percent share of state population; adjusted by a CAGR from FY 2022 to FY 2025 based on historical FTA funding growth to New Jersey (annualized rate of 1.1 percent over the period from 2006 to 2021); adjusted by a CAGR from FY 2026 to FY 2035 based on respective scenario funding growth rates; and then projected by a CAGR over the Long-Term beginning in FY 2036 based on respective scenario funding growth rates. Competitive funding is only included for the Plan and Aspirational Scenarios.

Over the long-term, beginning in FY 2036, assumptions continue to differ markedly by scenario. All formula funding in the TCP associated with NJDOT and NJ TRANSIT programs and projects is carried forward into the long-term, with annual capital funding growth rates of 1.2 percent, 2.8 percent and 3.5 percent for the Limited, Plan, and Aspirational scenarios respectively. The rate of inflation is held constant for all three scenarios at 2.8 percent.

ii. Expenditure

The allocation of funding to future transportation investments for the Plan Scenario, including programs and capital projects is guided by the Regional Capital Investment Strategy (RCIS) not factoring Gateway Program projects due to their extraordinary size and once in a generation occurrence. The RCIS serves as the NJTPA's policy guide to meeting the region's competing demands and opportunities through a balanced, realistic approach to regional transportation investment, focused on supporting the development of a regional economy with strong community centers, improved public health through active

transportation, increased traveler satisfaction, and environmental and economic sustainability. The RCIS considers a long-term horizon and sets allocation targets for 16 categories of capital expenditures broadly focused on system preservation, system improvement, and system support (Table 2).

In order to align Plan Scenario expenditures with the RCIS allocation targets, the expenditures of the TCP were first categorized by RCIS category (excluding Gateway Program projects). Secondly, using the financial model, long-term expenditures (less Gateway Program projects) were categorized by RCIS category in a precise manner, such that when summed with the near- and mid-term expenditures of the TCP, total expenditures across the entire planning horizon (not factoring Gateway Program projects) were aligned with RCIS allocation targets. The second step of the above process was used for the Limited and Aspirational scenarios, focused on achieving different RCIS allocation targets.

Unlike the Plan Scenario, the Limited and Aspirational Scenarios are not guided by the RCIS. They have differing allocation targets (as reflected in the financial model) in reaction to potential future available funding levels and regional priorities that differ from the Plan Scenario. Table 2, provides a higher-level summary of how both scenarios differ from the Plan Scenario regarding allocation targets and resulting dollars spent on capital expenditures per RCIS category.

The Limited Scenario prioritizes system preservation and safety with its scarce funding at the expense of most other types of capital expenditures. Because the Limited Scenario affords a lower level of overall transportation investment, the proportion of expenditures allocated to the RCIS categories of bridges, road preservation, and transit preservation, and direct safety is higher than the Plan Scenario to provide comparable levels of funding for system preservation and safety. This reallocation results in reduced allocation targets and resulting expenditures for the remaining RCIS categories, which predominantly focus on system enhancement and expansion.

The Aspirational Scenario maintains system preservation and generally prioritizes non-road system improvements with its abundant funding, especially transit. The majority of RCIS categories have the same allocation targets as the Plan Scenario and provide more funding for expenditures due to the Aspirational Scenario's higher level of overall transportation investment. However, four categories including road enhancement, road expansion, road preservation, and bridge preservation have funding at Plan Scenario levels, and correspondingly lower allocation targets. Bridge preservation also has a lower allocation target than the Plan Scenario, but does have more funding though. Transit enhancement and transit expansion are prioritized in the Aspirational Scenario and as a

result have higher allocation targets and substantially more funding than what is afforded by the Plan Scenario.

Table 2: RCIS Allocations by Scenario

RCIS Category	Plan	Limited		Aspirational	
	Allocation Target %	% Allocation Compared to Plan	Dollars ($) Compared to Plan	% Allocation Compared to Plan	Dollars ($) Compared to Plan
System Preservation					
Bridge Preservation	15.4%	Higher	Same	Lower	More
Transit Preservation	27.5%	Higher	Same	Same	More
Road Preservation	12.1%	Higher	Same	Lower	Same
System Improvement					
Transit Enhancement	6.6%	Lower	Less	Higher	More
Transit Expansion	3.9%	Lower	Less	Higher	More
Road Enhancement	2.1%	Lower	Less	Lower	Same
Road Expansion	0.9%	Lower	Less	Lower	Same
Dedicated Freight	2.1%	Lower	Less	Same	More
ITS and Incident Management	3.0%	Lower	Less	Same	More
Travel Demand Management	1.2%	Lower	Less	Same	More
Direct Safety	4.5%	Higher	Same	Same	More
Pedestrian and Bicycle	2.1%	Lower	Less	Same	More
Environment/Climate	2.7%	Lower	Less	Same	More
Placemaking and Land Use	0.9%	Lower	Less	Same	More
System Support					
Program Support	7.5%	Lower	Less	Same	More
Local Systems Reserve	7.5%	Lower	Less	Same	More

Source: WSP, May 2025.

The subset of the Gateway Program projects that are projected to start construction during the near- and mid-term that aren't completed in the first 10 years of the LRTP, are projected to continue into the long-term, dependent on scenario (Table 1). Table 3 provides the assumed federal, New York, New Jersey, and others share of funding for each Gateway Program project. "Other" includes the Port Authority, which has funding dedicated to the Hudson Tunnel Project and the NJ Turnpike, which has funding dedicated to the Portal North Bridge. Figures for the Hudson Tunnel Project and Portal North Bridge reflect the remaining balance of funding since these projects are under construction.

Table 3: Gateway Program Project Funding Share Assumptions (FY26-FY50)

Gateway Program Project	Federal Share FY26 – FY50	NJ State Share FY26-FY50	NY State Share FY26-FY50	Other FY26-FY50
Hudson Tunnel Project	67%	2%	12%	19%
Secaucus Station & Loop Tracks	50%	50%	0%	0%
Portal North Bridge	0%	30%	0%	70%
Portal South Bridge	50%	50%	0%	0%
NJ TRANSIT Gateway Storage Yard	50%	50%	0%	0%
Sawtooth Bridges Replacement	50%	50%	0%	0%
Dock Bridge Rehabilitation	50%	50%	0%	0%
Harrison Fourth Track	50%	50%	0%	0%
New York Penn Station	50%	25%	25%	0%

Source: FY2025-2029 Northeast Corridor Commission Capital Investment Plan; FY2026 New Jersey Transportation Capital Program; WSP

4. Funding Growth and Inflation Rates

Each of the three scenarios was assigned a tailored long-term funding growth rate and all of the scenarios were assigned one common long-term cost inflation growth rate (Table 4). These rates in combination, were used to project formula funding from the TCP (all scenarios) and historical competitive funding (Plan and Aspirational Scenarios), into the long-term period. The methodologies for determining these rates are provided below.

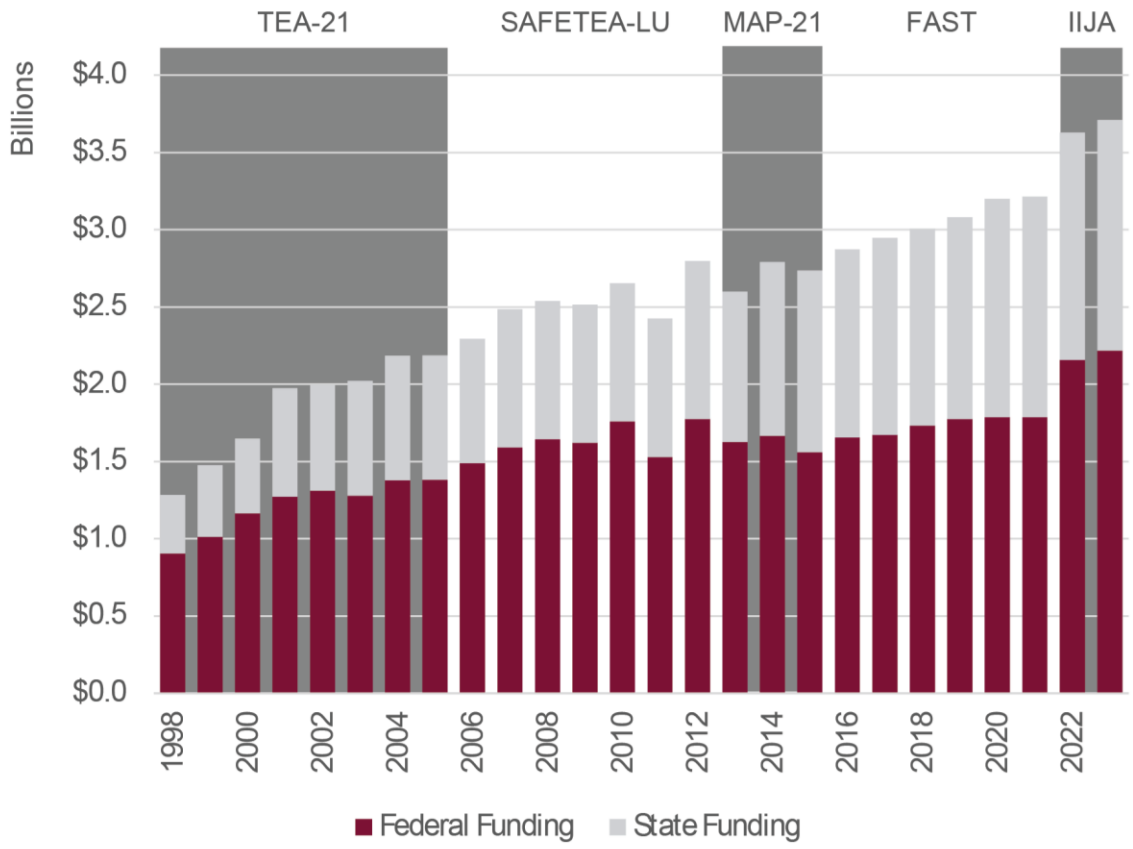
Table 44: Overview of Scenarios - Funding Growth Rates and Cost Inflation Rates

Scenario	Funding Growth Rate	Cost Inflation Rate
Limited Scenario	1.2%	2.8%
Plan Scenario	2.8%	2.8%
Aspirational Scenario	3.5%	2.8%

a. Funding Growth

A review of historic transportation funding growth at the federal and state levels has informed the selection of funding growth rates applicable to the long-term period for each of the three scenarios. The following figures detail historic federal and state funding for transportation.

Figure 1: Federal Transportation Funding to New Jersey and State of New Jersey Transportation Funding, 1998 to 2023



Source: U.S. Department of Transportation Federal Highway Administration; U.S. Department of Transportation Federal Transit Administration; New Jersey Transportation Trust Fund Authority

Federal funding has fluctuated over time based on the policy priorities set during each transportation authorization. Over the past quarter century, there have been five transportation authorizations, including the current one, the Infrastructure Investment and Jobs Act (IIJA):

- TEA-21: 1998 to 2005
- SAFETEA-LU: 2006 to 2012
- MAP-21: 2013 to 2015
- FAST: 2016 to 2021
- IIJA: 2022 to present

SAFETEA-LU resulted in 34 percent funding growth, on an average annual basis, compared to its predecessor, TEA-21. MAP-21 resulted in slightly negative funding growth of -1 percent compared to SAFETEA-LU. However, FAST resulted in a modest increase of 7 percent compared to MAP-21. IIJA has provided a significant and potentially multi-generational increase in transportation funding, resulting in 26 percent growth over FAST.

The IIJA is due to expire at the end of FY2026, and significant funding increases thereafter are unlikely. Similarly, transportation funding in the State of New Jersey has also fluctuated over time based on Transportation Trust Fund reauthorizations. The last reauthorization, passed in 2024, increased and extended the TTF Authority's bonding capacity to $15.6 billion through FY2029 (from the previous limit of $12 billion), and authorized nearly $10.4 billion in capital program appropriations from FY2025 to FY2029, a slight uptick from the $2 billion per year in appropriations from FY2017 to FY2024.

State funding for transportation has historically outpaced growth of federal funding for transportation to New Jersey. From 2003 to 2023, the compounded annual growth rate (CAGR) of federal transportation funding to New Jersey and State funding for transportation were approximately 2.8 percent and 3.5 percent respectively. During this period, the share of State funding for transportation has trended higher over time, from 37 percent in 2003 to 40 percent in 2023, with some fluctuations during interim years. When projecting available future transportation funding for the Plan Scenario, this period was chosen as a reference due to its general mix of fiscal scarcity and abundance provided by the five surface transportation acts that overlapped the period. The Plan Scenario's projected funding growth rate of 2.8 percent is midway between the projected rates of NYMTC (2.4 percent) and SJTPO (3.0 percent).

The period from 2006 to 2021, spanning the full extent of SAFETEA-LU through FAST transportation authorizations, was notably a slow period of growth for federal transportation funding to New Jersey with a CAGR of 1.2 percent. State funding remained more robust with a CAGR of 3.9 percent during this period. When projecting available future transportation funding for the Limited Scenario, this period of fiscal scarcity was chosen as a reference.

During the 1998 to 2023 period, the CAGR of federal transportation funding to New Jersey and State funding for transportation was considerably higher, at approximately 3.7 percent and 5.6 percent respectively. When projecting available future transportation funding for the Aspirational Scenario, this period of fiscal abundance was chosen as a reference. Although the projected 3.5 percent funding growth rate for this scenario is higher than the other two scenarios, it's a reasonably conservative figure, midway between the projected Plan Scenario annual rate of 2.8 percent and the average of the federal and New Jersey historical transportation annual funding growth rates (4.3 percent) observed between 1998 and 2018.

b. Cost Escalation

When projecting future inflation, the period spanning between 2007 (pre-Great Recession) and 2021 (COVID-19 pandemic) was chosen as a reference as it was marked by a general mix of inflation trends and includes a period of high inflation during the pandemic thus not over sampling an anonymously high inflationary period.

The pandemic brought unprecedented economic shifts that significantly affected inflation dynamics. In 2020, in response to the pandemic and resulting lockdowns, decreased demand for a wide range of goods and services and changes in commuting patterns led to a dramatic cooling of demand and associated costs across the county and in particular the NJTPA region, notably in sectors important to transportation project delivery, including commodities such as raw materials and energy, and skilled labor. These costs rose sharply in the second half of 2020 through 2023, well above pre-pandemic levels, as the lockdowns were phased out, and demand quickly rebounded while supply struggled to keep up due to labor shortages and other disruptions.

Cost escalation for future transportation investments in the LRTP is based on inflation, as measured by a combination of the national Consumer Price Index for All Urban Consumers (CPI-U) and two national construction cost indices (CCI), one for transit, and one for all other types of projects, including roadway, bridge, freight, pedestrian, bicycle, and placemaking infrastructure.

i. Consumer Price Index (CPI-U)

CPI-U tracks changes in the prices of a basket of goods and services typically purchased by urban households, serving as a key indicator of inflation in the United States. CPI-U in the United States averaged 3.0 percent during the 1990s, 2.6 percent in the 2000s, and 1.8 percent in the 2010s, and 4.3 percent from 2020 through the 3rd quarter of 2024. During the reference period from 2007 to 2021, the CPI-U grew at a CAGR of 1.9 percent, with a broad range from almost no annual inflation to four percent until the COVID-19 pandemic, when inflation spiked in 2021 to 4.7 percent, continuing to rise afterward, only easing recently (see Figure 2).

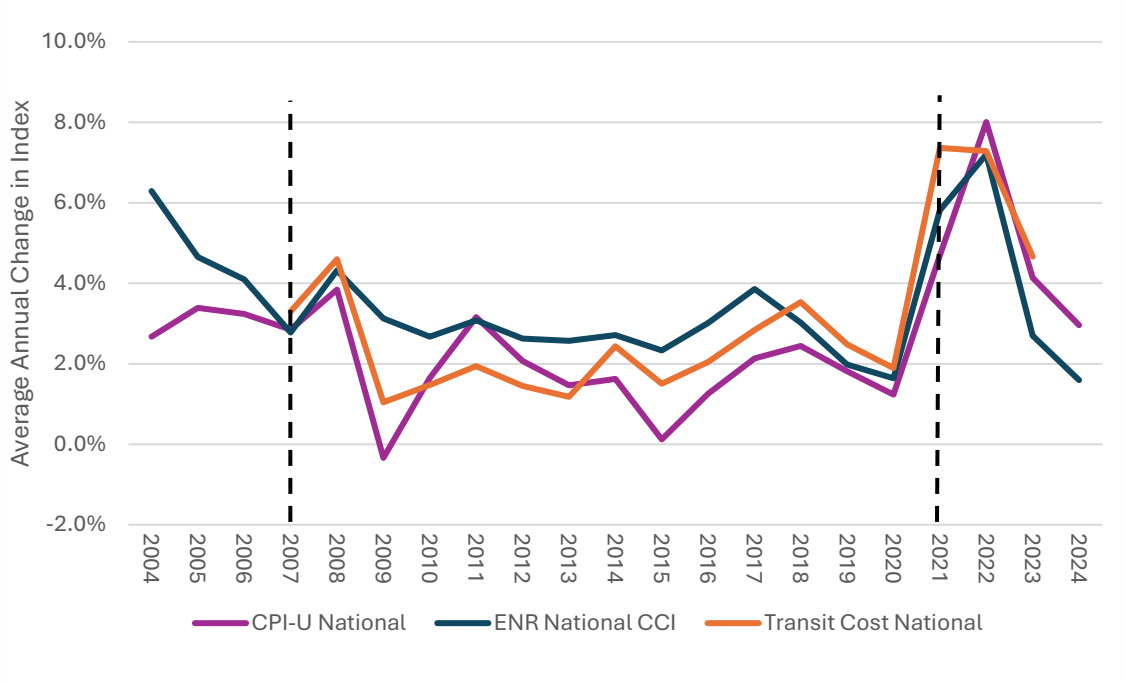
ii. Construction Cost Indices (CCI)

For a more tailored assessment of historic costs inflation for transportation capital project delivery, some agencies and organizations publish bespoke construction cost indices (CCI) that reflect annual changes in labor, material, and other costs that are relevant to construction. Transportation agencies in turn may use these sources to inform their projections of future transportation construction costs.

Engineering News-Record (ENR) publishes an index of national construction costs based on monthly changes on labor rates, steel at mill prices, cement per ton prices, and lumber prices by length. This is one of the two CCIs that the Financial Element uses in conjunction with the CPI-U. During the reference period from 2007 to 2021, the ENR national CCI grew at a CAGR of 3.1 percent, predominantly ranging from two to four percent until the COVID-19 pandemic, when inflation spiked in 2021 to six percent, continuing to rise afterward, only easing recently (see Figure 2).

WSP, the consultant assisting the NJTPA with the development of the Financial Element of *Connecting Communities*, previously developed a transit construction cost index, which is the second CCI that the Financial Element uses. The index incorporated national-level data for construction material components and labor for the period 2007 to 2021. For the reference period from 2007 to 2021, the national transit cost index CAGR was approximately 2.5 percent. It largely ranged from one to three percent year-over-year and also spiked in 2021 and 2022 to almost 7.5 percent.

Figure 2: Annual Growth for ENR CCI and CPI-U – National, 2004 to 2024



Source: Engineering News-Record; U.S. Bureau of Labor Statistics

Table 5 summarizes the cost escalation factors and associated CAGRs for the period from 2007 to 2021 factored when projecting future cost inflation.

Table 5: Cost Escalation Factors Considered

Index	Value 2007-2021
ENR National CCI	3.1%
CPI-U National	1.9%
Transit Cost National	2.5%

Source: Engineering News-Record; U.S. Bureau of Labor Statistics; WSP

National, as opposed to local cost escalation factors have been considered for a few reasons. National cost escalation factor datasets are more comprehensive in their coverage, reflecting a wider array of goods, materials, and services. Also, they are more consistent in collection of data with uniformity in methodology and measurement. As a result, national cost escalation factors are typically smoother and are less prone to great fluctuations that may be found in local cost escalation factors.

The Financial Element's allocation of funding to future transportation investments for the Plan Scenario, including programs and capital projects funded by both formula and competitive sources is guided by the Regional Capital Investment Strategy (RCIS). Specifically, cost indices and associated cost escalation rates were assigned to appropriate RCIS categories. The assumptions for these assignments are detailed in table 6 and discussed below.

CPI-U National has been assigned to those categories with a heavy staff time/labor component; Transit Cost National has been assigned to categories focused primarily on transit construction, while ENR National CCI has been assigned to the remaining categories. The cost index assigned to each RCIS category represents the best match of RCIS category cost components with the cost escalation captured in the assigned cost index. Using RCIS Plan scenario allocation targets, the weighted average annual cost escalation rate is approximately 2.8 percent, which is in line with the projected funding growth rate of 2.8 percent and midway between the projected cost escalation rates of NYMTC (2.6 percent) and SJTPO (3.0 percent).

Table 6: Cost Escalation Rates Applied to RCIS Categories

Thematic Group	RCIS Category	Cost Index	Plan Target Allocation	Cost Escalation Rate
System Preservation	Bridge Preservation	ENR National CCI	15.4%	3.1%
	Transit Preservation	Transit Cost National	27.5%	2.5%
	Road Preservation	ENR National CCI	12.1%	3.1%
System Improvement	Transit Enhancement	Transit Cost National	6.6%	2.5%
	Transit Expansion	Transit Cost National	3.9%	2.5%
	Road Enhancement	ENR National CCI	2.1%	3.1%
	Road Expansion	ENR National CCI	0.9%	3.1%
	Dedicated Freight	ENR National CCI	2.1%	3.1%
	ITS and Incident Management	ENR National CCI	3.0%	3.1%
	Travel Demand Management	CPI-U National	1.2%	1.9%
	Direct Safety	ENR National CCI	4.5%	3.1%
	Pedestrian and Bicycle	ENR National CCI	2.1%	3.1%
	Environment/Climate	ENR National CCI	2.7%	3.1%
	Placemaking and Land Use	ENR National CCI	0.9%	3.1%
System Support	Program Management	CPI-U National	7.5%	1.9%
	Local Systems Reserve	ENR National CCI	7.5%	3.1%
			Weighted Avg. Rate	**2.8%**

Source: WSP, January 2025.

5. Exogenous Factors

In addition to containing three fiscal scenarios to address the uncertainty inherent with *Connecting Communities* prolonged 25-year planning horizon, several exogenous factors are assessed that may have outsized impacts and possibly disrupt future available funding and transportation investment needs and priorities. These exogenous factors are not financially modeled as part of the development of *Connecting Communities* nor quantitatively incorporated but are noted as considerations that should be monitored and

reassessed periodically over the next 25 years. These factors are provided below, with descriptions, likelihoods, and possible impacts.

a. Extreme Weather Impacts

Global sea levels have risen between eight and nine inches since 1880 according to the National Oceanic and Atmospheric Administration (NOAA).[1] In many locations along the U.S. coastline, the rate of local sea level rise is greater than the global average due to land processes like erosion, oil and groundwater pumping, mining, and construction. NOAA projects that global average sea level rise would rise at least one foot above 2000 levels by 2100 under its most optimistic scenario and as much as 6.5 feet under its worst-case scenario involving rapid ice sheet collapse with an expected average increase of 10 to 14 inches in sea level rise on the East Coast over the next 30 years.[2]

In New Jersey, sea level rise has increased by 18.6 inches since the early 1900s due to global sea level rise and sinking of the earth's surface due to underground material movement caused by both natural and human activities. According to Rutgers University's 2023 State of the Climate report, sea levels in the state are projected to rise by 4.0 to 6.3 feet above 2000 levels by 2100, depending on future emissions scenarios.[3] Sea level rise significantly increases flooding risks and amplifies storm surges across New Jersey, particularly in low-lying coastal areas. These changes threaten critical infrastructure, including roadways, transit networks, water systems, and power grids. Coastal erosion exacerbates the displacement of residents, businesses, and ecosystems, while long-term impacts include declining property values, lost business revenue, and rising insurance costs.

In addition to sea level rise, the region must contend with more frequent extreme storms in the future such as Superstorm Sandy in 2012 and tropical storm Ida in 2021 which caused destructive impacts to the region's transportation system due to catastrophic flooding. Flash flooding spawned by heavy rainfall is one of the most common causes of impacts to transportation, which can quickly make roads impassable; cause significant disruptions; endanger the lives of those in harm's way; and wash out roads. Storms surge caused by strong winds can greatly impact mobility and potentially damage transportation infrastructure along coastlines and will be made worse by sea level rise. Strong winds can

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[1] https://www.climate.gov/news-features/understanding-climate/climate-change-global-sea-level

[2] https://sealevel.globalchange.gov/resources/2022-sea-level-rise-technical-report/#:~:text=Sea%20level%20along%20the%20U.S.%20coastline%20is%20expected%20to%20rise,both%20land%20and%20ocean%20height

[3] https://njclimateresourcecenter.rutgers.edu/wp-content/uploads/2024/06/State-of-the-Climate-2023-06-24.pdf

be strong enough to down trees, break branches, and damage infrastructure such as traffic lights and catenary wires. Communities such as Jersey City, Hoboken, Atlantic City, and Toms River rank among the top 20 at-risk locations in the tri-state area, according to the Federal Reserve Bank of New York's Flood Risk and the Tristate Housing Market report. To address these current and future sea level and flooding threats, in 2021, New Jersey implemented a Climate Resilience Strategy and has continued to update regulations to protect infrastructure and vulnerable communities.[4]

Extreme weather events will increase damage to existing transportation infrastructure and require more funds for repair and maintenance. This may result in a diversion of funds that would otherwise have been spent on new transportation infrastructure. In addition, new transportation infrastructure will need to be built to higher standards, in order to withstand extreme weather events. This would likely require additional funding and may extend project delivery timeframes.

b. Aging Construction Labor Force

Northern New Jersey is facing significant labor shortages in its construction sector, especially within the infrastructure trades, which is hindering efforts to meet both current and planned transportation infrastructure capital improvement schedules. This shortage is driven by a combination of factors, including a sharp increase in federally funded projects resulting from the 2021 Inflation Reduction Act (IRA) and the 2022 Infrastructure Investment and Jobs Act (IIJA), as well as an aging workforce and low unemployment rates in the construction industry. These trends are placing pressure on the region's ability to meet the demand for skilled labor, particularly as funding for major transportation projects increases. According to the US Census Bureau's Public Use Microdata Sample (PUMS), the regional construction unemployment rate of 5.2 percent in 2022 was below the ten-year average of 6.8 percent, indicating that the regional labor force is increasingly edging closer to full employment.

The aging workforce is a particularly pressing concern, with the share of older workers aged 55 or older in Northern New Jersey's construction industry steadily rising from 12.7 percent in 2000 to 29.2 percent in 2024 according to the Census Bureau's Quarterly Workforce Indicators (QWI) program. Among the infrastructure trades specifically, older workers account for 28.9 percent of the workforce. This demographic shift is further exacerbated by the increasing demand for skilled labor and challenges in recruiting and retaining younger workers. These issues are particularly pressing given the substantial

[4] https://dep.nj.gov/climatechange/resilience/resilience-strategy/#:~:text=The%20Climate%20Change%20Resilience%20Strategy,natural%20resources%20throughout%20the%20State.

investments planned in transportation infrastructure. If the aging construction labor force is not replaced, ensuing labor shortages may drive up the costs of constructing new transportation infrastructure as well as the costs of maintaining existing transportation infrastructure.

c. Increasing Fuel Efficiency

Recent trends in fuel efficiency and reduced dependence on gasoline reflect a broader shift toward cleaner, more efficient transportation. The projected fuel economy for model year 2023 is 26.9 mpg, slightly higher than the previous year's 26.0 mpg, marking the highest level since the EPA began tracking light-duty vehicles in 1975.[5] This progress builds on past efforts, including the 2010 Corporate Average Fuel Economy (CAFE) standards, which set a target of 36 mpg for 2025. The EPA further tightened regulations in 2021 with new greenhouse gas standards aiming for a fleet-wide average of 40 mpg by 2026. Alongside these efforts, stricter emissions rules for heavy-duty vehicles, finalized in 2022, are expected to reduce nitrogen oxide emissions by 60 percent by 2045.[6]

Since 2020, the U.S. has revised its system for regulatory credits tied to EV sales. In 2022, the EPA restored California's authority to enforce its own emissions standards, helping drive regulatory support for EV sales in 14 states, including New York, New Jersey, and Connecticut.[7] In 2024, the government further extended its emissions reduction timeline to 2030, providing automakers additional time to create affordable, high-efficiency vehicles and expand necessary infrastructure, signaling a continued transition away from gasoline dependence toward cleaner energy alternatives.[8] Increased fuel efficiency may further challenge transportation funding that is heavily reliant on motor fuel taxes.

d. Increase in Alternative Fuel Vehicles

Aligned with recent trends in increasing fuel efficiency and reduced dependency on gasoline, the rise of electric vehicles (EVs) in the United States is transforming the automotive industry. According to the U.S. Department of Energy, fully electric vehicles on the road reached 1.3 million by 2023. When combined with Plug-In Hybrid Electric Vehicles

[5] https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P10191S7.pdf
[6] https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-and-related-materials-control-air-pollution
[7] https://www.epa.gov/newsreleases/what-they-are-saying-epa-restoration-california-waiver-will-support-state-climate
[8] https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-strongest-ever-pollution-standards-cars-position

(PHEVs) and Hybrid Electric Vehicles (HEVs), the total exceeds 11 million,[9] representing about 3 percent of all light-duty vehicles nationwide.[10]

In New Jersey, EVs and PHEVs accounted for 2.8 percent of the vehicle market as of June 2024, with 185,486 electric vehicles registered. Adding HEVs, which numbered 174,200 in 2022, brings the estimated share of electric and hybrid vehicles in the state to approximately 5.5 percent.[11] This trend is particularly noticeable in new car sales. During the first quarter of 2024, the Energy Information Administration (EIA) reported that EVs, PHEVs, and HEVs made up 18 percent of all new light-duty vehicle sales in the U.S., maintaining the level seen in the previous quarter.[12]

Although electric vehicles are gaining ground, it will take years for them to represent a significant portion of the overall fleet due to the average four-year lifespan of modern cars.[13] Local adoption rates, financial incentives, and vehicle costs all play a role in this transition. By 2035, some analysts predict that electric vehicles could make up 71 percent of new car sales nationwide, with 35 percent of all light-duty vehicles on the road being electric.

In February 2024, the U.S. government adjusted its ambitious plan to reduce tailpipe emissions and boost EV sales by extending deadlines through 2030, allowing automakers more time to produce affordable models and expand charging infrastructure. Despite this temporary slowdown, experts anticipate that fuel costs will have a diminishing impact on the nation's and New Jersey's automotive fleets in the years ahead. The Trump Administration has halted EV tax credit incentives enacted as part of the 2022 Inflation Reduction Act and increased tariffs on foreign vehicles, which will likely set back the transition to EV adoption to some extent. Should there continue to be a shift towards EVs in the long-term, new fees may need to be imposed to offset the loss of motor fuel tax revenue.

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[9] U.S. Department of Energy, Light-Duty AFV Registrations, 2023, [retrieved from: https://afdc.energy.gov/files/u/data/data_source/10861/10861_AFV_registrations_6-11-24.xlsx?df6c372616.]
[10] U.S. Department of Energy, Vehicle Registration Counts by State, 2022, [retrieved from: https://afdc.energy.gov/vehicle-registration.]
[11] U.S. Department of Energy, 2022 Light-Duty Vehicle Registration Counts by State and Fuel Type, [retrieved from https://afdc.energy.gov/vehicle-registration.]
[12] U.S. Energy Information Administration, "U.S. share of electric and hybrid vehicle sales decreased in the first quarter of 2024," May 14, 2024, [retrieved from: https://www.eia.gov/todayinenergy/detail.php?id=62063.]
[13] https://www.bts.gov/content/average-age-automobiles-and-trucks-operation-united-states

e. On-Demand Transportation

On-demand transportation and ridesharing continue to grow in popularity due to rising vehicle ownership costs, changes in public transit services and ridership demand, and a wider range of ride-hailing and vehicle rental options.

Service offers continue to expand in Northern New Jersey. Over the past decade, Uber and Lyft have evolved from start-ups into dominant personal on-demand providers. Since 2020, Via has provided over 2 million shared rides to Jersey City residents, offering an affordable alternative to Uber and Lyft while replacing discontinued bus routes.[14]. Additionally, Zipcar, Turo, and Getaround facilitate short-term car sharing and rentals.

Traditional local taxi services and NJ TRANSIT's Access Link on-demand paratransit service remain active, with Access Link expanding in 2024 to allow taxis and Uber/Lyft vehicles to serve clients statewide.[15] In urban communities like Jersey City and Hoboken, scooter and bike-sharing services, such as Lime and Bird, are also available. On-demand transportation services may strain how existing transportation infrastructure is utilized and place demands on future transportation infrastructure investment. The convenience of on-demand services over public transit or other alternatives may increase traffic and vehicles miles traveled (VMT), worsening congestion and accelerating road and bridge deterioration. This may lead to more investment being required for road and bridge infrastructure maintenance and upgrades. And these services may divert revenue that would have otherwise gone to public transit.

f. Autonomous Vehicles

Autonomous vehicle (AV) adoption in the United States remains in the early stages, moving ahead by technological advancements, substantial investment, and growing public interest. Key players like Waymo, Tesla, and Cruise continue to make progress, testing both partially and fully autonomous vehicles in select communities and highway corridors. In southern and western states, several pilot programs now support delivery services and limited ride-hailing. Nationwide adoption, however, faces challenges due to the lack of comprehensive legislation, liability issues, and performance concerns, especially in adverse weather conditions.

In New Jersey, AV adoption continues to remain under study since the establishment of the state's Autonomous Vehicle Task Force in 2019. While widespread AV adoption may still

[14] https://www.tapinto.net/towns/jersey-city/sections/green/articles/jersey-city-s-via-microtransit-program-tops-2-million-rides
[15] https://www.nj.com/news/2024/10/uber-lyft-ride-sharing-is-part-of-a-major-expansion-of-this-nj-transit-program.html

be decades away, current efforts are establishing regulatory frameworks, addressing technological hurdles, and developing system designs, all key steps that are gradually advancing AVs toward public acceptance. Similar to on-demand transportation, AVs may strain existing road networks and may also exacerbate funding challenges if the vehicles are electrified. AV adoption may increase the number of vehicle miles traveled due to their convenience over other transportation methods, which could exacerbate traffic congestion and place additional demands on road infrastructure. Moreover, demand for investments in road technologies such as smart traffic signals may increase as AV adoption increases. Electrification may also require substantial investment in public charging infrastructure, while reducing revenue from traditional fuel taxes. All of these would result in higher levels of infrastructure investment required with lower returns through traditional revenue sources. In addition, if AV trips replace public transit trips, there would also be a loss of revenue for public transit.

g. Changing Commute Patterns

Commutation and journey-to-work patterns offer valuable insights into travel flows in Northern New Jersey, particularly as they have shifted since the rise of flexible work arrangements following the COVID-19 pandemic and the region's office space adjustments to meet evolving demand. As of 2023, the share of workers working from home in Northern New Jersey stands at 14.3 percent, slightly above the state average (14.0 percent) and national average (13.8 percent). Telecommuting rates had already been notable before the pandemic, with 4.4 percent of workers in the region telecommuting in 2014 and 4.7 percent in 2017. Although current work-from-home rates have decreased significantly from the peaks of 23.2 percent in 2021 and 17.5 percent in 2022, they are expected to remain elevated above pre-pandemic levels into the future.

Most commutes are within the region, at nearly 90 percent in 2024. About seven percent of commute trips were to Manhattan, which is lower than approximately 10 percent before the pandemic. Should work-from-home rates continue declining, the share of commute trips to Manhattan may increase back to pre-pandemic levels.

These changes in commute patterns have implications on how the region plans its transportation infrastructure. On the one hand, the majority of commutes are within the region, which suggests a need to focus transportation improvements within the region. While there has been less commuting overall relative to pre-pandemic levels, there is a potential increase of commutes to Manhattan as overall commuting levels increase. Recent lower levels of commuting have led to overall public transit fare revenue declines, compared to pre-pandemic levels, during a period of increasing operating expenses driven by inflation, labor shortages, and higher material costs. If these trends continue over time,

this could complicate decisions regarding the types and locations of future transportation infrastructure, as well as impact project delivery by forcing the re-evaluation of existing projects or delaying their implementation due to increasing costs.

h. Other Factors

Two additional factors of note are the following.

- New York City Congestion Pricing, which launched in January 2025, imposes tolls on vehicles entering Manhattan south of 60th Street. This may result in mode shift from auto to public transit, increasing demand for NJ TRANSIT and PATH service.
- New Jersey Protecting Against Climate Threats (NJPACT) initiative empowers the New Jersey Department of Environmental Protection to implement policies aimed at enhancing resiliency. Such policies may impact how transportation infrastructure is maintained and designed in the future.

6. Capital Funding and Expenditures

Funds used for transportation investments in the NJTPA region primarily come from federal and state sources. Federal sources have been the largest projects in the region. Historically, over 90 percent of federal transportation funding was formula funding[16], where funds are apportioned by the federal government to each state based on various formulas such as population share, land area share, lane-miles of federal highway, and vehicle miles traveled on federal highway. This changed under the IIJA, with the introduction of multiple competitive grant programs. Under the IIJA, $14.2 billion in formula funds will ultimately be awarded to New Jersey; this includes approximately $8 billion for highways and bridges, which is a 41.6 percent increase over the FAST Act[17]. Given that the IIJA provided a significant and potentially multi-generational increase in transportation funding, the NJTPA is taking a more measured approach, projecting long-term funding growth that is more consistent with historical trends.

The Financial Element only includes relevant transportation investments that are at least in part funded by the federal government or the State of New Jersey. The federal portion is almost exclusively funded through the FHWA and FTA. There are other transportation investments being made in the region, including by the Port Authority of New York and New Jersey, the New Jersey Turnpike Authority and the Delaware River Joint Toll Bridge Commission, that are not accounted for in the Financial Element because they lack federal or State funding. This includes the Port Authority Bus Terminal replacement project, which,

[16] https://crsreports.congress.gov/product/pdf/R/R47922
[17] The Bipartisan Infrastructure Law Will Deliver for New Jersey

when completed, will benefit thousands of New Jersey commuters each day. While the most heavily traveled roads and bridges in North Jersey are under the state's jurisdiction and funded through the New Jersey Transportation Capital Program (TCP), county and local governments are responsible for maintaining and upgrading more than 90 percent of road miles and about 40 percent of bridges in the NJTPA region. While some of these projects do receive federal and/or State funding, many do not and are also not included in the Financial Element. There are federal funding sources other than FHWA and FTA, such as the Federal Railroad Administration (FRA), that are not typically included in the TCP and as a result, not typically accounted for in the Financial Element. However, the Financial Element does include some FRA funding dedicated to the Hudson Tunnel Project that is not programmed in the TCP.

As provided in the Scenario Overview and Methodology section, to address the uncertainty inherent in long-term planning, the Financial Element contains three scenarios, including a fiscally constrained Plan Scenario, a Limited Scenario that reflects potential fiscal scarcity, and an Aspirational Scenario that reflects potential fiscal abundance. An accounting of the projected available funding for transportation capital investments over the planning horizon is provided below for each of the three scenarios.

Plan Scenario

The Plan Scenario is fiscally constrained and guided by the RCIS, serving as a realistic and balanced approach for making future transportation capital investments in the region. Matching projected funding, total expenditures are projected to be $122.3 billion (YOE$) (Table 7 and Table 9) over the 25-year planning horizon, averaging nearly $4.9 billion (YOE$) per year (Table 8). Nearly half of total funding is dedicated to capital investments focused on maintaining the transportation system in a state of good repair. The Plan Scenario does provide funding for targeted transit, roadway, and nonmotorized improvements, notably several Gateway Program projects, including the Hudson River Tunnel Project, Portal North Bridge Replacement, Sawtooth Bridge Replacement, Dock Bridge Rehabilitation, and Harrison Fourth Track.

Table 7: Total Funding by Source for Plan Scenario (billions of YOE dollars)

Source	Near-Term FY26-29	Mid-Term FY30-35	Long-Term FY36-50	Total
Federal	$11.57	$16.83	$41.21	$69.60
State	$7.12	$10.66	$31.94	$49.71
Other	$1.19	$1.62	$1.35	$4.15
Total	**$19.87**	**$29.10**	**$74.50**	**$123.47**

Source: WSP, May 2025.

Table 8: Average Annual Funding by Source for Plan Scenario (billions of YOE dollars)

Source	Near-Term FY26-29	Mid-Term FY30-35	Long-Term FY36-50	Total
Federal	$2.89	$2.80	$2.75	$2.78
State	$1.78	$1.78	$2.13	$1.99
Other	$0.30	$0.27	$0.09	$0.17
Total	**$4.97**	**$4.85**	**$4.97**	**$4.94**

Source: WSP, May 2025.

Table 9: Plan Scenario Expenditures by RCIS Category (billions of YOE dollars)

Expenditures (RCIS Categories)	Near Term (FY26-29)	Mid Term (FY30-35)	Long Term (FY36-50)	Total
System Preservation	$9.67	$13.37	$36.57	$59.62
Bridge Preservation	$3.45	$4.18	$8.96	$16.59
Transit Preservation	$5.09	$7.59	$17.31	$29.99
Road Preservation	$1.13	$1.60	$10.30	$13.04
System Improvement	$8.00	$12.22	$27.46	$47.69
Transit Enhancement	$4.14	$6.58	$9.20	$19.93
Transit Expansion	$1.23	$1.33	$4.18	$6.75
Road Enhancement	$0.67	$1.07	$0.52	$2.26
Road Expansion	$0.11	$0.41	$0.45	$0.97
Dedicated Freight	$0.21	$0.31	$1.74	$2.26
ITS and Incident Management	$0.44	$0.49	$2.30	$3.23
Travel Demand Management	$0.14	$0.24	$0.90	$1.29
Direct Safety	$0.60	$1.06	$3.19	$4.85
Pedestrian and Bicycle	$0.07	$0.06	$2.13	$2.26
Environment/Climate	$0.31	$0.54	$2.06	$2.91
Placemaking and Land Use	$0.07	$0.12	$0.78	$0.97
System Support	$2.20	$3.51	$10.46	$16.16
Program Support	$1.07	$1.64	$5.37	$8.08
Local Systems Reserve	$1.13	$1.87	$5.09	$8.08
Total	**$19.87**	**$29.10**	**$74.50**	**$123.47**

Source: WSP, February 2025

Limited Scenario

The Limited Scenario reflects a potential fiscal environment of scarcity and would provide 10 percent less funding than the Plan Scenario for future transportation capital investments. Under this scenario, the region would be less prepared to meet the demands of a growing population and economy on the transportation network. Matching projected funding, total expenditures are projected to be $109.1 billion (YOE$) (Table 10 and Table 12) over the plan period, averaging $4.4 billion (YOE$) per year (Table 11). Due to the significant reduction in overall funding, a larger proportion must be dedicated to capital investments focused on maintaining the transportation system in a state of good repair. As a result, less funding is available for targeted transit, roadway, and nonmotorized improvements. Only the Hudson River Tunnel Project and Portal North Bridge Replacement are included, and there's no long-term competitive funding for other capital projects.

Table 10: Total Funding by Source for Limited Scenario (billions of YOE dollars)

Source	Near-Term FY26-29	Mid-Term FY30-35	Long-Term FY36-50	Total
Federal	$11.05	$16.30	$35.37	$62.72
State	$6.60	$10.13	$26.75	$43.48
Other	$1.19	$1.62	$1.26	$4.07
Total	**$18.84**	**$28.05**	**$63.38**	**$110.27**

Source: WSP, May 2025.

Table 11: Average Annual Funding by Source for Limited Scenario (billions of YOE dollars)

Source	Near-Term FY26-29	Mid-Term FY30-35	Long-Term FY36-50	Total
Federal	$2.76	$2.72	$2.36	$2.51
State	$1.65	$1.69	$1.78	$1.74
Other	$0.30	$0.27	$0.08	$0.16
Total	**$4.71**	**$4.67**	**$4.23**	**$4.41**

Source: WSP, May 2025.

Table 12: Limited Scenario Expenditures by RCIS Category (billions of YOE dollars)

Expenditures (RCIS Categories)	Near Term (FY26-29)	Mid Term (FY30-35)	Long Term (FY36-50)	Total	Versus Plan	
					$	%
System Preservation	$9.67	$13.37	$36.57	$59.62	-	-
Bridge Preservation	$3.45	$4.18	$8.96	$16.59	-	-
Transit Preservation	$5.09	$7.59	$17.31	$29.99	-	-
Road Preservation	$1.13	$1.60	$10.31	$13.04	-	-
System Improvement	$6.97	$11.16	$20.31	$38.45	$(9.24)	(19.4)%
Transit Enhancement	$4.14	$6.58	$7.46	$18.18	$(1.74)	(8.7)%
Transit Expansion	$0.20	$0.28	$2.69	$3.17	$(3.57)	(53.0)%
Road Enhancement	$0.67	$1.07	$0.00	$1.75	$(0.52)	(22.8)%
Road Expansion	$0.11	$0.41	$0.21	$0.73	$(0.24)	(24.5)%
Dedicated Freight	$0.21	$0.31	$1.19	$1.71	$(0.55)	(24.5)%
ITS and Incident Management	$0.44	$0.49	$1.51	$2.44	$(0.79)	(24.5)%
Travel Demand Management	$0.14	$0.24	$0.59	$0.98	$(0.32)	(24.5)%
Direct Safety	$0.60	$1.06	$3.19	$4.85	-	-
Pedestrian and Bicycle	$0.07	$0.06	$1.58	$1.71	$(0.55)	(24.5)%
Environment/Climate	$0.31	$0.54	$1.35	$2.20	$(0.71)	(24.5)%
Placemaking and Land Use	$0.07	$0.12	$0.54	$0.73	$(0.24)	(24.5)%
System Support	$2.20	$3.51	$6.50	$12.20	$(3.96)	(24.5)%
Program Support	$1.07	$1.64	$3.39	$6.10	$(1.98)	(24.5)%
Local Systems Reserve	$1.13	$1.87	$3.11	$6.10	$(1.98)	(24.5)%
Total	**$18.84**	**$28.05**	**$63.38**	**$110.27**	**$(13.20)**	**(10.7)%**

Source: WSP, May 2025.

Aspirational Scenario

The Aspirational Scenario reflects a potential fiscal environment of abundance and would provide 16 percent more funding than the Plan Scenario and address more long-standing unfunded transportation priorities. This scenario is intended to represent a feasible path forward supported by historical periods of fiscal abundance, that funds significant improvement and expansion of the region's transportation system to meet the needs of an aspiration future in which population and economic growth. Matching projected funding, total expenditures are projected to be $142.7 billion (YOE$) (Table 13 and Table 15) averaging $5.7 billion per year (Table 14). While maintaining the transportation system in a state of good repair, the scenario provides significant funding dedicated to targeted transit,

roadway, and nonmotorized improvements, including the construction of the full Gateway Program.

Table 13: Total Funding by Source for Aspirational Scenario (billions of YOE dollars)

Source	Near-Term FY26-29	Mid-Term FY30-35	Long-Term FY36-50	Total
Federal	$14.26	$20.86	$46.52	$81.64
State	$9.12	$13.66	$35.22	$58.00
Other	$1.19	$1.62	$1.40	$4.20
Total	**$24.56**	**$36.14**	**$83.14**	**$143.85**

Source: WSP, May 2025.

Table 14: Average Annual Funding by Source for Aspirational Scenario (billions of YOE dollars)

Source	Near-Term FY26-29	Mid-Term FY30-35	Long-Term FY36-50	Total
Federal	$3.56	$3.48	$3.10	$3.27
State	$2.28	$2.28	$2.35	$2.32
Other	$0.30	$0.27	$0.09	$0.17
Total	**$6.14**	**$6.02**	**$5.54**	**$5.75**

Source: WSP, May 2025.

Table 15: Aspirational Scenario Expenditures by RCIS Category (billions of YOE dollars)

Expenditures (RCIS Categories)	Near Term (FY26-29)	Mid Term (FY30-35)	Long Term (FY36-50)	Total	Versus Plan	
					$	%
System Preservation	$9.67	$13.37	$38.19	$61.24	$1.62	2.7%
Bridge Preservation	$3.45	$4.18	$9.32	$16.96	$0.36	2.2%
Transit Preservation	$5.09	$7.59	$18.57	$31.25	$1.26	4.2%
Road Preservation	$1.33	$1.60	$10.29	$13.03	$(0.01)	(0.1)%
System Improvement	$12.69	$19.26	$33.81	$65.76	$18.07	37.9%
Transit Enhancement	$4.14	$6.58	$10.18	$20.90	$0.97	4.9%
Transit Expansion	$5.92	$8.37	$8.79	$23.08	$16.34	242.1%
Road Enhancement	$0.67	$1.07	$0.52	$2.26	-	-
Road Expansion	$0.11	$0.41	$0.45	$0.97	-	-
Dedicated Freight	$0.21	$0.31	$1.84	$2.36	$0.10	4.3%
ITS and Incident Management	$0.44	$0.49	$2.44	$3.37	$0.14	4.3%
Travel Demand Management	$0.14	$0.24	$0.96	$1.35	$0.06	4.3%
Direct Safety	$0.60	$1.06	$3.40	$5.06	$0.21	4.3%
Pedestrian and Bicycle	$0.07	$0.06	$2.23	$2.36	$0.10	4.3%

Expenditures (RCIS Categories)	Near Term (FY26-29)	Mid Term (FY30-35)	Long Term (FY36-50)	Total	Versus Plan	
					$	%
Environment/Climate	$0.31	$0.54	$2.19	$3.03	$0.12	4.3%
Placemaking and Land Use	$0.07	$0.12	$0.82	$1.01	$0.04	4.3%
System Support	$2.20	$3.51	$11.15	$16.85	$0.69	4.3%
Program Support	$1.07	$1.64	$5.71	$8.43	$0.34	4.3%
Local Systems Reserve	$1.13	$1.87	$5.44	$8.43	$0.34	4.3%
Total	**$24.56**	**$36.14**	**$83.14**	**$143.85**	**$20.38**	**16.5 %**

Source: WSP, February 2025

7. Operating Expenditures

In addition to capital funding, NJDOT and NJ TRANSIT also depend on appropriations from the state General Fund to support operations for both existing capacity as well as any capacity increases.

NJDOT's appropriation for maintenance and operations of state and local highway facilities includes snow removal, road surface upkeep, maintenance of roadside lighting, vegetation, inspections, technical studies and general and administrative services. For FY 2025, the agency's operating budget dedicated to the NJTPA region is projected to be $27.5 million, assuming the region accounts for 75 percent share of the state's population. To keep pace with projected long-term inflation of 2.8 percent over 25 years, this appropriation would need to increase to $54.8 million in FY 2050.

NJ TRANSIT is one of the largest transit agencies in the country, with significant operating funding needs. NJ TRANSIT's operating revenue is derived from several sources. Approximately one quarter in FY 2024 came from passenger revenue. An additional 66 percent came from federal, state and local reimbursements along with five 5 percent from state appropriations. The remaining funding comes from investment income and other non-operating revenues.

Beginning in FY 2026, NJ TRANSIT will receive a boost from the newly implemented state corporate transit fee, which can be used for operations and as a local match for federal grants such as the Capital Investment Grant (CIG) Program to support capital projects.

NJ TRANSIT's projected operating costs within the NJTPA region are expected to grow to $5.1 billion per year by 2050 (Table 16). These NJ TRANSIT projections are based on existing services and projected growth and include allowances for inflation, increased

service to accommodate a moderate rate of ridership growth and limited initiation of new services beyond the current system.

Approximately 59 percent of the operating expenses are dedicated to costs associated with labor and fringe benefits. Expenses including materials, fuel and power, utilities, and outside services represent 32 percent of the total operating expenses. Purchased transportation is transit service provided by a contracted service provider and represents the remaining nine percent of total operating expenses.

Table 16: NJ TRANSIT Annual Operating Expense Projections for the NJTPA Region (billions in YOE$)

Expenses (billions of $YOE)	FY2024 Budget	FY2050 Projections*
Labor & Fringe	$1.34	$2.74
Materials, Fuel & Power, Utilities and Outside Services	$0.74	$1.51
Purchased Transportation	$0.21	$0.43
Total Operating Uses of Funds	**$2.28**	**$4.68**

**Note: The budget projection provides for growth in all categories of 2.8 percent per annum*

8. Other Transportation Funding and Expenditures

In addition to the federal and State investments discussed in this Technical Appendix, transportation funding is supplemented by additional investments by other transportation agencies— principally, the Port Authority of New York & New Jersey, New Jersey Turnpike Authority, Amtrak, and Delaware River Joint Toll Bridge Commission. Investments from these agencies are expected to continue over the life of Connecting Communities planning horizon. Key projects planned by the authorities are included in the Project Index. While these agencies fund their capital and operating needs through user fees and other sources of revenue outside the scope of Connecting Communities, their transportation investments and services are integral to the North Jersey region and contribute to its mobility and economic growth. The following provides a brief overview of these agencies and their contributions to the NJTPA region's transportation network.

a. Port Authority of New York and New Jersey

The Port Authority of New York and New Jersey operates and maintains bridges, tunnels, airports, and seaports within a 1,500 square mile district that covers portions of the states of New York and New Jersey. Key facilities operated by the Port Authority within the NJTPA region include Newark Liberty International Airport, Teterboro Airport, the PATH rail system, the port complex in Newark and Elizabeth and major New York-New Jersey crossings—the Outerbridge Crossing, Goethals Bridge, Bayonne Bridge, Holland Tunnel,

Lincoln Tunnel and George Washington Bridge. The agency has built passenger ferry facilities, maintains roadways within its facilities, provides on-dock and cross-harbor rail-freight service, and contributes to other key infrastructure elements that access its facilities and aid the movement of goods and people throughout the region. Port Authority facilities and financial resources are not included within the definition of the federally supported surface transportation system used to establish the fiscally constrained LRTP.

The Port Authority's 2017-2026 capital plan has been extended to 2028 due to the COVID-19 pandemic. The $32.2 billion plan features investments spread over a broad portfolio of assets and facilities with the goal of keeping them efficient, safe, secure and reliable. In addition to investing in its own assets, the Port Authority's capital plan allocates up to $2.7 billion in debt service support for the Gateway Program. Major projects include essential state-of-good-repair investments at the George Washington Bridge, the Lincoln Tunnel Helix Replacement Program, Port Wharf and Berth Replacement Program, the Port Authority Bus Terminal (PABT) Interim Improvement Program and further development of the PABT Replacement Program, PATH Rail Extension to Newark Liberty Rail Link Station and PATH Car Fleet Expansion. The TCP includes one Port Authority project, the Holland Tunnel 12th Street Enhanced Corridor Improvements Project. The PANYNJ ten-year plan notes that the agency may seek to leverage its capital investments to secure additional competitive federal funding and financing assistance and public-private partnership financing for major projects that enhance the region's surface transportation capacity.

b. New Jersey Turnpike Authority

The New Jersey Turnpike Authority (NJTA) operates and maintains the New Jersey Turnpike and the Garden State Parkway. The Turnpike is 148 miles long (56 miles in the NJTPA region) and includes 27 interchanges, nearly 500 bridges and 12 service areas. The Garden State Parkway is 172 miles long (121 miles within the NJTPA region) and includes 90 interchanges, approximately 300 entrance and exit ramps and nearly 500 bridges.

NJTA's funding comes from toll revenues and other revenues, which includes rest area concessions, advertising, and property leases, which it uses to meet operations and maintenance expenses, finance capital needs, and to contribute to the TTF. NJTA's $24.1 billion twenty-year capital improvement program, released in 2020, focuses on maintaining the Turnpike and Parkway in a state of good repair and investment in certain capacity improvements including widening the Parkway between interchanges 98 and 163, widening the Turnpike between interchanges 1 and 4 and 14 through 14C to the terminus of Turnpike at the Holland Tunnel, alignment widening between the Southern Mixing Bowl and Interchange 16W, as well as installation of all electronic tolling. On-going investments in the 2024 to 2028 Projects Summary include bridge construction, preservation, and

security as well as pavement resurfacing. In addition, it provides $22 million per year to the TTF, plus additional funds for feeder road maintenance ($2.5 million in CY 2023 and annually through CY 2029), and additional funds per existing state transportation funding agreements ($507.6 million in CY 2025 which increases to $545.1 million in CY 2029).

c. Amtrak

Amtrak is a corporation striving to deliver a high quality, safe, on-time rail passenger service that exceeds customer expectations. It owns the Northeast Corridor and provides intercity passenger rail service that includes regional and high-speed trains connecting North Jersey with Philadelphia, Wilmington, Baltimore and Washington, D.C. to the south; New York City, Providence and Boston to the north, and other metropolitan areas throughout the nation. The Gateway Program, led by Amtrak in collaboration with NJ TRANSIT, the Port Authority, and the Gateway Development Commission, is a comprehensive program of capital investments focused on preserving and increasing rail capacity along a 10-mile stretch of the North East Corridor between Newark Penn Station and New York Penn Station. The TCP includes $7.26 billion planned for the Gateway Program, including the Hudson Tunnel Project and the Portal North Bridge.

d. Delaware River Joint Toll Bridge Commission

The Delaware River Joint Toll Bridge Commission (DRJTBC) is a self-funded entity that operates pursuant to a Joint Agreement between the states of New Jersey and Pennsylvania. The DRJTBC's jurisdiction covers 140 miles and extends from the Philadelphia/Bucks County line in Pennsylvania to the New Jersey/New York border. It owns, operates, and maintains 20 bridges spanning the Delaware River that connect New Jersey with Pennsylvania. Of the 20 bridges, eight of them are tolled and 12 are supported by toll revenue, two of which are pedestrian-only. In addition to the 20 bridges, the DRJTBC also owns and operates 39 approach structures throughout its region. All DRJTBC toll bridges are in the NJTPA region except the Scudder Falls Toll Bridge and Trenton-Morrisville Toll Bridge. The DRJTBC relies on toll revenue to support its operations, maintenance, and capital needs. Capital projects are focused on bridge rehabilitation, facility and approach roadway improvements, and bridge and approach roadway repaving.