# CHAPTER 3

Nevada Passenger Rail Strategic Plan



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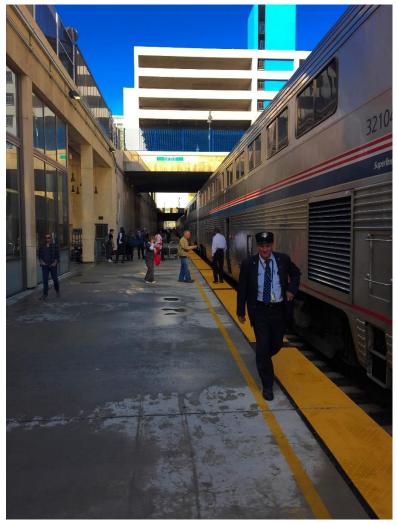
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# **Chapter 3 Proposed Passenger Rail Improvements and Investments**

#### A. Introduction

As covered in Chapter 2, passenger rail service in Nevada is presently limited in scope, frequency, and availability. Development of passenger rail in the state has been historically impaired by numerous challenges ranging from limited funding sources, subsidized competition from air and highways, topography, distance between the larger potential passenger rail markets, and the location or absence of existing infrastructure for intercity or commuter rail.



Amtrak's Westbound California Zephyr at Reno

Although many of these challenges continue to exist, this section details a broad range of proposed projects and investments to address passenger rail needs in the state. These proposals, improvements, and investments cover enhancements to existing services and the development of new services. The scope of these improvements encompasses conventional and high-speed intercity services, commuter services, excursion rail attractions, and intermodal passenger transportation connectivity. While the Nevada State government has been encouraging a private-sector passenger rail initiative that promises

to institute new high-speed rail between Southern California and Las Vegas, the primary focus of the new state rail plan is on the use of existing railroad infrastructure as the base for new passenger transit development.

# **B. Passenger Rail Improvement Opportunities**

Nevada has opportunities to grow passenger rail service in the near- and long-term. Multiple proposals and studies have addressed and analyzed this opportunity, considering intercity, commuter, and excursion services and encompassing many corridors and urban centers in the state.

The following sections describe each opportunity area in detail, categorized by rail type:

# Intercity

- o Amtrak California Zephyr Improvements
- o Extension of Amtrak's Capital Corridor to Reno-Sparks
- Multistate Intercity Equipment Pool
- Brightline West
- o Southwest Multi-State Rail Planning Study
- o Thruway Improvements and the C Route from Las Vegas to Reno
- Amtrak service: Salt Lake City to Las Vegas and Los Angeles

#### Excursion

- Nevada Northern Railway
- Virginia & Truckee Railroad
- Nevada Southern Railway The Hoover Dam Limited
- Las Vegas Xpress X-Train Los Angeles to Las Vegas

#### Commuter

- Reno to Innovation Park (formerly the Tahoe-Reno Industrial Center)
- o Reno Area Transit Service
- o Brightline West Commuter
- o Extension of the Las Vegas Monorail to the Brightline West Terminal

# B-1. Intercity Rail Improvements

#### Amtrak California Zephyr

Amtrak currently provides conventional passenger rail service in northern Nevada with its national-network *California Zephyr* line between Chicago and the San Francisco Bay area with Nevada stops in Elko, Winnemucca, and Reno. Following Greyhound Lines' abandonment in 2018 of its parallel services, Amtrak represents the only public transport option between these cities. Amtrak has no plans to add stops in

other Nevada cities at the present time, though there are ongoing discussions with the city of West Wendover, NV.<sup>1</sup>

The state rail plan has elicited suggestions to enhance station facilities and operations and to expand service; these suggestions do not include cost estimates, schedules, or benefit/cost analyses (BCA) but do expand on their potential connectivity, economic, environmental, and social benefits. Other sources of improvement suggestions are Amtrak's *California Zephyr's* Performance Improvement Plan (CZ PIP) in 2010 and recommendations from advocacy groups.

- Improve Passenger Station Facilities at Elko to conform with best practices by facilitating a direct connection between eastbound and westbound platforms. The present three-quarter mile distance between platforms, which causes lengthy and challenging walks (as reported in chapter 2, section 2-5 of this rail plan), is worthy of further analysis, perhaps taking advantage of the nearby South 12<sup>th</sup> Street overpass that bridges the tracks. Train stations can stimulate area growth and economic development even if they only see one daily train as Elko does, as attested by many communities participating effectively in the Great American Stations Project. However, these benefits are hard to capture if the station facility is not itself inviting, let alone intuitively functional. Due to the late-night train arrival and departure times, local bus transit connections are not available.
- ADA Improvements at Elko Amtrak has several initiatives underway to bring all its stations into ADA (Americans with Disabilities Act) compliance, along with an initiative to improve station signage and information displays. The Winnemucca station work was focused on meeting ADA requirements and included parking spaces, pathways, a new unstaffed station providing a three-sided shelter in the style of a traditional railway station, and a new platform. The Elko station upgrades included parking improvements, new concrete sidewalks, pathways, curb ramps, new stairs with handrails, a new fence and guardrail, new doors and hardware, and repair of the existing platforms including the addition of detectable warning strips on the platform edges and new signs on the platforms. However, as stated above, this station's fundamental dysfunction of separate platform access has yet to be addressed fully.
- Add Sleeping Cars to the *California Zephyr* train sets as per the 2010 PIP performed by Amtrak to add capacity for visitors to Nevada. Sleeping cars frequently sell out.
- Add Service Between Reno and the San Francisco Bay Area during the winter months as a more
  desirable means of transportation between these two areas as recommended in Amtrak's 2010 CZ
  PIP<sup>3</sup>.

This will meet peak seasonal demand for ski tourists visiting Nevada. Dedicated shuttle service from Reno or Truckee, CA would provide better transportation options for ski travelers to Tahoe.

<sup>&</sup>lt;sup>1</sup>Amtrak, "Amtrak Fact Sheet, Fiscal Year 2018, State of Nevada" Report, source link.

<sup>&</sup>lt;sup>2</sup>The Great American Stations website, source link, accessed July 24, 2020.

<sup>&</sup>lt;sup>3</sup> PRIIA Section 210 Report, California Zephyr, Performance Improvement Plan (pp. 1-36, Rep.). Washington, D.C.: Amtrak, source link

- Add a Second Daily Train in Each Direction to the California Zephyr service for the length of its Chicago-to-San-Francisco-Bay-Area run. This will create more connectivity between the stations on the route and more local travel opportunities for communities in Nevada (Amtrak 2010 PIP).
- Adding Station Stops in Nevada further leverages this federally subsidized train to produce an increase in service for the state. The one-time capital expense associated with constructing new station(s) provides an attractive return on investment because the entire ongoing costs of operating and maintaining the rail service continue to be borne by Amtrak. The investment would be felt along the route of the *California Zephyr* in Nevada, especially as its corridor isn't served by another public transportation mode. Furthermore, the addition of these stations may help the *California Zephyr*'s own performance given the Reno, NV-Salt Lake City, UT segment of the *California Zephyr*, which at present has the lightest coach class ridership on the route.<sup>4</sup> Please refer to Figure 3-1 for more detail.
  - West Wendover, NV (population 5,700) has been in discussions with Amtrak since the 2012 Nevada State Rail Plan to add a station on the Utah/Nevada border, and may induce casino traffic from Salt Lake City. Amtrak has agreed to add the stop if West Wendover can secure the funds for constructing the station.
  - Lovelock, NV (population 1,800) is the seat of Pershing County, and is an optimally located stop to leverage the *California Zephyr* to better serve Nevada. The present *California Zephyr* timetable would allow for a day trip from Lovelock to Reno, a travel pattern not presently available to Nevadans. Given the average catchment zone for an Amtrak long-distance train in a rural location of up to 50 miles,<sup>5</sup> such a stop could see impressive ridership as compared to the local population, as experienced at rural stations elsewhere on Amtrak's Long Distance network.<sup>6</sup>
  - Fernley, NV is a satellite community of Reno, roughly 35 rail miles east of the Reno depot. It has seen significant growth over the past decade. A stop at Fernley would also provide more convenient access to Fallon, NV. Fernley has a growing industrial base (such as Tesla's Gigafactory) while Fallon is the home of the Naval Aviation Warfighting Development Center. (Combined populations of Fernley and Fallon total almost 30,000).
  - Sparks, NV (population 104,000) was an Amtrak stop prior to May 2009. Safety issues developed
    as the passenger station was co-located in the Union Pacific freight yard. As the largest town
    between Reno and Salt Lake City, it represents an important community to serve.

<sup>&</sup>lt;sup>4</sup> Source: RailPAC, Interviewed by Author, April 22, 2020.

<sup>&</sup>lt;sup>5</sup> Rail Passenger Association, Route Fact Sheet, 2010

<sup>&</sup>lt;sup>6</sup> Note the California Zephyr's presently high ratio of ridership to population in Nevada in Table 2-3 in Chapter 2 of this study – 40% in Elko, 67% in Winnemucca, 30% in Reno.



Lounge Car on Amtrak's California Zephyr Crossing Nevada East of Reno

Figure 3-1 Proposed Amtrak California Zephyr Station Stops I D A H O E G O N WINNEMUCCA WEST Battle Mountain Goldfield **2020 NEVADA STATE RAIL PLAN** AMTRAK CALIFORNIA ZEPHYR STATIONS IN NEVADA California Zephyr Route Proposed California Zephyr Stops Amtrak Station Interstate Highway US Highway

Since the *California Zephyr* arrives westbound at Reno at 8:36am and departs Reno eastbound at 4:06pm new Amtrak stops at Lovelock, Fernley and Sparks would create improved mobility for Nevadans and provide those rural residents with the opportunity to make day trips to Reno for doctor appointments, shopping, visiting family, friends, and local attractions.

Adding stops would require a formal local or state request, an Amtrak evaluation of the revenue, the costs of adding the proposed stop(s), and negotiations involving Union Pacific's evaluation of capacity impacts on the line's throughput. Costs could include improvements such as station platforms, lighting, main line track or siding, signal upgrades, and grade-crossing improvements to maintain the line's existing level of freight service.

Amtrak's September 2010 PRIIA PIP presents Amtrak's proposed plan for improving the *California Zephyr* including customer service, equipment inspections, and ADA access at stations. The PIP proposed to upgrade the *California Zephyr* to premium service, pending equipment availability; such service would require, at a minimum, an additional sleeping car and a dedicated first class lounge car. As noted in the 2012 State Rail Plan, Amtrak's comprehensive business plan called for a consistent, sustainable annual fleet purchase plan to replace Amtrak's national fleet with new intercity equipment. In addition, Amtrak previously entertained other options to enhance its *California Zephyr* service, including the Sparks Car Initiative, which would add passenger cars and increase seating capacity between Emeryville, CA, and Reno during the popular winter months. Extra cars would be added to the train for the segment from Emeryville to Reno, and the additional cars would then be detached in the Sparks railyard for servicing before returning to Emeryville on the return Amtrak train.

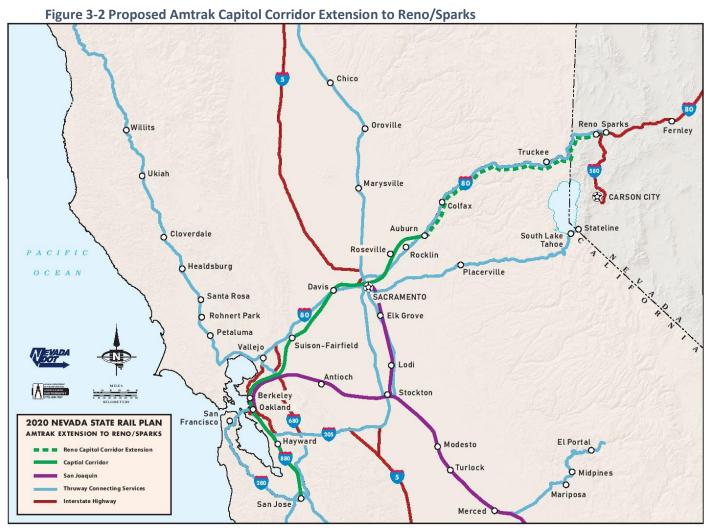
The above initiatives have not been pursued, and the *California Zephyr* presently operates with heavily depreciated 40-year-old Superliner equipment. Amtrak has stated that it does not intend to begin the procurement process for the Superliner fleet until after 2025,<sup>7</sup> meaning that the equipment used by Nevada's only passenger train will have to wait until it reaches an average age of nearly 50 years before there is even an established timeline for its replacement. The shortfall could lead to an existential threat to this essential service.

Adding a second daily train to Amtrak's *California Zephyr* service will require Amtrak's fleet replacement program to be established, Congressional approval and funding, as well as host railroad capacity evaluations, which are likely to result in a need for capital improvements.

# Extension of Amtrak's Capital Corridor to Reno-Sparks

The Rail Passenger Association of California and Nevada (RailPAC) has recommended that the Nevada State Rail Plan consider the potential of extending Amtrak's *Capital Corridor* service to Reno-Sparks over the Union Pacific and the *California Zephyr* route. Refer to **Figure 3-2** for more details.

<sup>&</sup>lt;sup>7</sup>Amtrak, "Five-Year Service Line Plans, Fiscal Years 2021-2025" Report, pg. 88, source link.



[UPRR Comment: Extension of Amtrak's Capitol Corridor to Reno-Sparks Given the regular suspension of passenger rail service over Donner Pass during snow events, UPRR does not support the implied greater availability of the rail route versus 1-80 during winter storms.] There is substantial travel from Northern California cities to the Reno metro area as a result of leisure and vacation activities, visiting family and friends (many California retirees have relocated to the Reno area) and student travel from California to the University of Nevada, Reno. This travel demand

As part of the California State Rail Plan, extension of *Capitol Corridor* service to Reno-Sparks was listed. RailPAC recommends that Nevada DOT coordinate with Caltrans and the Capitol Corridor Joint Powers Authority (CCJPA) in identifying and funding capacity improvements for extending *Capitol Corridor* service between the Bay Area and Reno-Sparks. Nevada DOT would be the lead agency for capacity projects in Nevada.

becomes especially problematic during winter storms when I-80 can be unreliable.

A further recommendation stated Nevada DOT should coordinate with Caltrans and the CCJPA on the location, scope, and design of a layover facility for the extended *Capitol Corridor* service.

#### Multistate Intercity Equipment Pool

RailPAC recommends that Nevada explore with other states the initiation of a multi-state equipment pool. This pool of cars would provide Nevada with equipment to extend the *Capitol Corridor* service to Reno, add additional capacity between Oakland and Reno on the *California Zephyr* and reestablish service on the *Desert Wind* route: LA – Las Vegas – Salt Lake City.

Another goal of this effort would be to provide, as states phase in additional rail service over time, a steady stream of production to maintain a robust U.S. railway passenger equipment manufacturing base.

#### Brightline West – Rancho Cucamonga, CA to Las Vegas, NV

The proposed Brightline West service between Las Vegas and Rancho Cucamonga and ultimately the LA Basin in the California Inland Empire is the sole survivor of three separate private venture attempts to serve the Southern California-to-Las Vegas market as recorded in the 2012 Nevada State Rail Plan. Originally named DesertXpress the project was renamed in 2018 when it was acquired by Brightline. Refer to **Figure 3-3** for more details.

Brightline West will construct, operate, and maintain a high-speed passenger train system along the approximately 220-mile corridor between Las Vegas, NV and the Inland Empire in Rancho Cucamonga, CA. The alignment is predominantly constructed within the I-15 right of way in California and Nevada. Most of that alignment within the I-15 right of way will be within the median of the highway and the entire alignment will be protected and isolated from the highway, creating a dedicated rail corridor with no grade crossings. The alignment will be primarily single track with passing "sidings" that allow trains to pass each other on the corridor. The train will be fully electric with trainsets provided by Siemens, a global leader in high-speed train technology.

Upon opening, the company expects to operate trains departing every 45 minutes in each direction. There will be three stations: one in Rancho Cucamonga, one in Las Vegas, and a station in between called Victor Valley, in Apple Valley, CA. Each station will be located adjacent to the I-15 corridor. The project will include a vehicle maintenance facility adjacent to the Victor Valley station and ancillary operations and maintenance facilities along the corridor.

This passenger rail service will be substantially similar to the service Brightline West currently provides in South Florida. This passenger rail service will offer business, leisure, and personal travelers safe, sustainable, fast, reliable, convenient, and comfortable travel. Travelers will be able to reserve specific seats on trains and at times that fit their specific travel needs. Passengers will enjoy free high-speed Wi-Fi on board and other amenities at all three stations, such as business centers with print and copy services. Ancillary services on board the trains and in stations include the sale of passenger tickets, food and beverages, merchandise, parking, and other related services.

2020 NEVADA STATE RAIL PLAN
XPRESSWEST ROUTE MAP

Interstate Highway
US Highway

Baker

Baker

Ranche
Cucamongs
Barstow

Ranche
Barstow

Ran

Figure 3-3 Brightline West Route Map

Upon arrival, Brightline West passengers will be able to continue to travel seamlessly to their destinations. Train stations are usually conveniently located near major travel destinations and offer access to other modes of transportation such as public ground transportation and ride-sharing services. The Brightline West station in Las Vegas is primarily designed to have access to ride-sharing services and shuttle vans from casino hotels. The station in Rancho Cucamonga will be adjacent to the existing Metrolink station, which provides direct connectivity to Los Angeles Union Station and connects to the full Southern California mass-transit system.

The service will bring passenger rail service to Las Vegas for the first time since the closure of Las Vegas' Amtrak station in 1997 when the intercity rail operator dropped its *Desert Wind* service.

These plans appear to be unaffected by the COVID-19 pandemic during 2020 and open an exciting new chapter for passenger rail in Las Vegas and Southern Nevada as the development of new rights-of-way offers commuter and regional rail opportunities. (*These opportunities are covered in the Commuter Rail Section below.*)

Brightline West anticipates a high level of demand for its service. Las Vegas is an international tourist and business convention destination, and demand for travel between Southern California and Las Vegas has substantially increased over the years. Approximately 85% percent of visitors from Southern California drive on I-15, the only highway connecting Southern California with Las Vegas. Over the last decade, the trip on I-15 has become a time-consuming, stressful, and congested travel experience. The Brightline West service will offer an attractive alternate mode of transportation for travelers between Southern California and Las Vegas. Automobile travel from Rancho Cucamonga to Las Vegas takes four hours without traffic, and that time increases considerably during peak days and times. The train will take approximately one hour and 20 minutes. The project will offer passengers an unparalleled transportation experience that bypasses traffic along this busy corridor in approximately half the time, and a better, cleaner, and safer alternative to driving. For air passengers, not only will the monetary savings be substantial, but the checkin process for rail service is also faster, easier, and less stressful than airport check-in and security procedures, providing a better experience for the traveler.

#### Southwest Multi- State Rail Planning Study

FRA's Southwest Multi-State Rail Planning Study completed and published in 2014 contemplated 11 intercity rail corridors, six of which involve Nevada. Together, the 11 corridors form an expanded "Golden Triangle" connection involving Las Vegas, Phoenix, and Los Angeles that was previously the major focus of the Western High Speed Rail Alliance (WHSRA). All but one of the six corridors in the Southwest Multi-State Rail Planning Study involving Nevada are subject to proposals described in detail in this report. The corridors and cross references to their relevant sections in this report are listed below. Refer to **Figure 3-4** for more details.

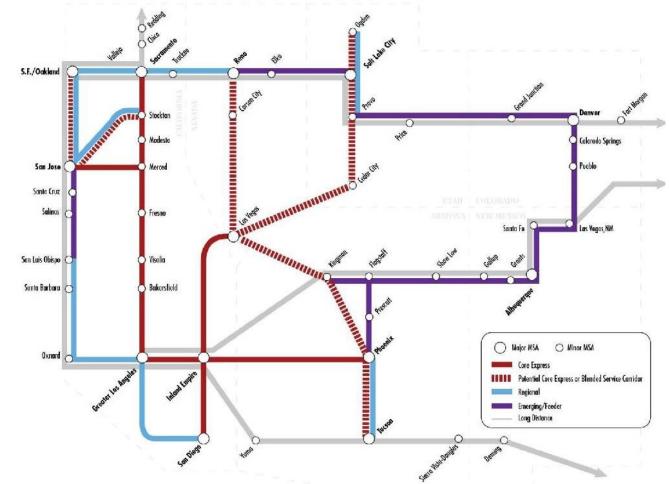


Figure 3-4: Proposed FRA Southwest Multi-State High Speed Rail

# **Greater Los Angeles-Las Vegas**

Proposals and developments on this corridor are referenced in the section "Brightline West -- Rancho Cucamonga to Las Vegas" above.

# S.F./Oakland-Reno

Proposals and developments on this corridor are referenced in the section "Thruway Expansion & C Route" below.

# Las Vegas-Salt Lake City

Proposals and developments on this corridor are referenced in the section "Amtrak Salt Lake City-to-Las Vegas and Los Angeles Service" below.

### Las Vegas-Reno

Proposals and developments on this corridor are referenced in the section "Thruway expansion & C Route" below.

#### Reno-Salt Lake City

Proposals and developments on this corridor are referenced in the section "Amtrak California Zephyr" above

#### Las Vegas-Tucson via Phoenix

This corridor, running from Las Vegas via Kingman, AZ to Phoenix and Tucson, has not engendered further studies or proposals.

#### Thruway Expansion & C Route: Reno to Las Vegas by Way of Central California

Several of Amtrak's Thruway bus routes that serve Reno offer direct connections to some of the most successful passenger rail corridors in North America, run by the state of California such as the *Capitol Corridor* and the *San Joaquins* serving California's Central Valley. Proximity to these routes could be leveraged, rather than building a customer base from scratch. Past California Rail Plans have contemplated more proactive involvement by Nevada in these corridors.

California's importance to the state of Nevada cannot be overstated either in terms of the dynamics of its travel markets nor in its connections to the national rail network. California visitors represent a plurality of visitors to Nevada's major travel markets. They comprise 27% of all visitors to Reno-Tahoe<sup>8</sup> and 23% of all visitors to Las Vegas.<sup>9</sup> The rail corridors with the highest ridership in the United States outside of the Northeast Corridor exist in California, and all three presently boast Thruway Bus connections to Nevada, paid for by the State of California. In the FRA's 2014 Southwest Multi-State Rail Planning Study, the FRA found that travel demand between San Francisco to Reno "allows competitive trip times for destinations throughout the entire Southwest network, including Los Angeles, San Diego, and Las Vegas. The recovery ratio exceeds 1.0 when the corridor is part of the greater network."<sup>10</sup>

This follows, given California's high frequency *Capitol Corridor* between San Francisco and Sacramento serving as the fourth busiest Amtrak route by ridership. While a direct rail extension of this corridor to Reno has been contemplated in the past,<sup>11</sup> the motivation to extend frequent corridor service into the state of Nevada did not originate from Nevada itself, and has not been seen in a business plan regarding the *Capitol Corridor* since 2005.

Nevada has no connection between its major population centers via grade-separated highways nor by railroad, reflecting the historic east-west pattern of development by which the state grew. The present ongoing development of the Interstate-11 project serves as evidence that a dedicated and modern ground connection between the cities of Las Vegas and Reno, NV will be a 21<sup>st</sup> century project. <sup>12</sup> The 2014 FRA Southwest Multi-State Planning Study categorized this corridor as third-tier: to be developed after other regional rail connections are established, such as between Las Vegas and Los Angeles, and San Francisco and Reno.

<sup>&</sup>lt;sup>8</sup>Reno-Sparks Convention and Visitors Authority, "Reno Tahoe 2019 Visitor Profile Survey – Executive Summary Report January – December 2019", pg. 15, <u>source link</u>.

<sup>&</sup>lt;sup>9</sup>Las Vegas Convention and Visitors Authority, "Las Vegas Visitor Profile, Calendar Year 2018 – Southern California and International Visitors Version", pg. 72, <u>source link</u>.

<sup>&</sup>lt;sup>10</sup>Federal Railroad Administration, "2014 Southwest Multi-State Rail Planning Study", pg. 137.

<sup>&</sup>lt;sup>11</sup> Several Capitol Corridor Joint Power Authority business plans listed extending Capitol Corridor passenger rail service from Sacramento to Reno, electing not to pursue the extension in 2005 following UPRR's capacity determination that separate right-of-way requiring costly new trackage would be needed on the Donner Pass route.

<sup>&</sup>lt;sup>12</sup>I-11 and Intermountain West Corridor Study, "Corridor Concept Report – November 2014", source link.

In service of establishing what the FRA deemed as the region's "low hanging fruit", it is worthwhile to note that passenger rail works well directly connecting travel markets, but it is arguably at its most effective when it serves a corridor of multiple travel markets linked together. This is a reason why Amtrak's Northeast Corridor as well as its seemingly disparate long distance service lines boast similar load factors; they both serve a great number of possible and viable trip permutations.<sup>13</sup>

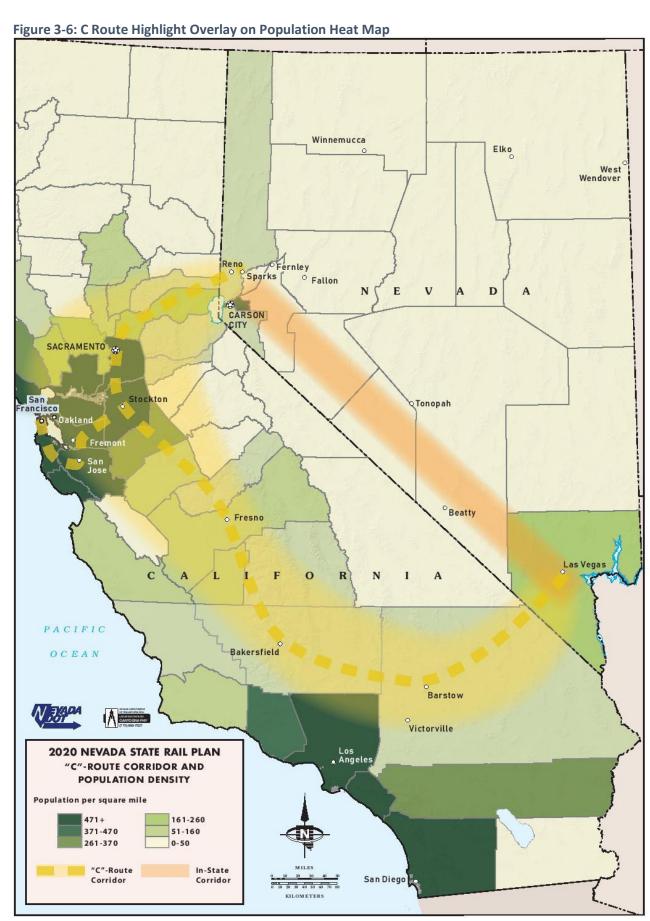
With this dynamic keenly in mind, in terms of conventional rail, Nevada should investigate the feasibility of developing a rail corridor between its major population centers using the bedrock of California's corridor system as a means of connection. Rights of way for such a service would utilize already extant, frequent California corridor services that already have a ready ridership base within a significant catchment area. Such service would leverage California's decades of investment in frequent corridor services and intermodal connections throughout the population centers of that state into a feeder system to the major tourist markets in Nevada. Such an interregional corridor could also take significant advantage of brand new passenger rail infrastructure as it comes online, in the form of the California High Speed Rail Project's initial segment currently under construction and the eventual Brightline West right of way in the I-15 corridor.

Using conventional rail passenger equipment and the existing railroad lines of Union Pacific and BNSF, service could be started anytime between Las Vegas and Reno over a "C" shaped route from Las Vegas to Bakersfield via Barstow and Tehachapi, as illustrated in **Figures 3-5** and **Figure 3-6**.

<sup>&</sup>lt;sup>13</sup>Amtrak, "Five-Year Service Line Plans, Fiscal Years 2025-2025" Report, pg. 19, source link.

Figure 3-5: Las Vegas – Reno C Route





From Bakersfield to Sacramento, the "C" Route would follow the existing routes of Amtrak's San Joaquins and Capital Corridor trains to serve stations in the heavily populated Central Valley of California including Fresno, Merced, and Stockton. From Sacramento the C Route would follow the California Zephyr route to Reno.

A section of the train would provide through service from Las Vegas to San Jose and San Francisco. Although the running time between Las Vegas and Reno would be 12–14 hours [UPRR Comment: Without understanding the full route, capacity, capabilities, and proposed passenger equipment, UPRR does not support including a statement estimating the potential running time between those two points as 12-14 hours.], it would provide an important alternative for seniors who do not want to fly or drive. The Las Vegas service to the Central Valley, San Jose, and San Francisco would be competitive with drive times because the geography makes trips by car long and circuitous. Air service from the Central Valley to Las Vegas is infrequent and expensive. Even with good, low-fare air service from the Bay Area to Las Vegas, more than half of the tourists choose to drive, according to previous National Household Travel surveys by the USDOT.

As a non-rail alternative, new intercity bus service will begin along the US 95 corridor between Reno and Las Vegas. This service will be operated by Greyhound per an agreement with NDOT. A separate agreement between NDOT and Salt Lake Express has also been finalized, which will add two other intercity bus routes connecting Elko to Salt Lake City, UT on one route, and Elko to Twin Falls, ID on the other. All three routes are slated for a late 2020 or early 2021 start. Details about the service will be posted to the NDOT Public Transit web page as they become available.

#### Amtrak Service Between Salt Lake City, Las Vegas, and Los Angeles

The 2012 state rail plan expressed citizen interest in reviving conventional passenger rail service between Salt Lake City and Las Vegas, which was formerly provided as part of Amtrak's *Desert Wind* service between Chicago and Los Angeles, until it was discontinued in 1997. Public transit planners in Clark County have also expressed their interest in restoring service on the route.

Amtrak provided Las Vegas and Caliente, NV with direct rail trips to Salt Lake City and Los Angeles until 1997 when Congressional budget cuts required Amtrak to discontinue its *Desert Wind* service. *Desert Wind* ran daily between Salt Lake City and Los Angeles between 1979 and 1995, when the service was modified to extend to Chicago with only three-day-a-week service and interlined with four-day-a-week *California Zephyr* service. Prior to the discontinuation, only a *Desert Wind* through coach and sleeping car extended east of Salt Lake City to Chicago. After the discontinuation, *California Zephyr* service was restored to daily operations between Salt Lake City and Emeryville, which had been provided before 1995. (Changes in Amtrak's Pioneer service, linking Salt Lake City; Boise, ID; Portland, OR; and Seattle, WA, mirrored those of the *Desert Wind*.) Southern Nevada has not had any passenger rail service since the elimination of the route.

Variations on *Desert Wind* service restoration could involve providing connecting train service at Salt Lake City, extending to Las Vegas and Los Angeles, or providing connecting train service at Salt Lake City, extending to Las Vegas, and linking with timed transfers to and from Brightline West or another proposed service in Las Vegas. Refer to **Figure 3-7** for more details.

Figure 3-7: Desert Wind Corridor



However, requiring transfers can result in significant losses in ridership. Also, the two states would likely need to pay Amtrak to provide the Salt Lake City-Las Vegas service. If cost is based on line length in each state, the bulk of the cost would fall to Utah, where the state constitution prohibits using gas tax receipts for non-highway expenditures. Utah might also be disinclined to fund such a service because the Union Pacific main line between Salt Lake City and Las Vegas is located away from the more populated areas in Utah, lying between the two cities. Historically, I-15 travel has been greater between Salt Lake City and St. George, UT than to Las Vegas; Salt Lake City's airport is a hub for Delta and Southwest airlines, so Salt Lake City residents would not be inclined to go to Las Vegas' McCarran Airport to catch a flight. In addition, the Las Vegas-Los Angeles leg of the original *Desert Wind* service garnered higher ridership than the Salt Lake City-Las Vegas segment.

Union Pacific uses its *South Central Route* between Las Vegas and Salt Lake City to handle traffic between Los Angeles and Salt Lake City, as well as to accommodate *Sunset Route* traffic shifts in response to construction, maintenance, weather, and other conditions. Union Pacific continues to upgrade its *Sunset* 

Route since the merger with the SPTC in 1997 because the Sunset Route offers a more favorable route east than the South Central Route, from which it has removed some traffic, especially within the last four years. However, the South Central Route provides a viable main line function for the railroad, which the company is interested in continuing.

Amtrak's September 2010 PRIIA PIP suggests restoring the Chicago-to-Los Angeles *Desert Wind* service in the long term to complement the existing *California Zephyr* service, pending host railroad negotiations, and securing capital and operating funding, which would be expected to require federal appropriations to cover capital costs for equipment, stations, freight capacity analysis improvements, and operating losses. If such conditions could be realized, states along the route could opt to provide supplemental support for the line similar to California's contract with Amtrak on the *Capitol Corridor* line. The 2014 FRA Southwest Multi-State Rail Planning Study classified this corridor as a later-phase development, meaning its viability is heavily dependent on other regional rail connections being established first, such as Las Vegas to Los Angeles.

# B-2. Excursion Rail Improvements

Excursion rail enhancements also present opportunities to advance the state's tourism and economic development. Nevada's Excursion Railroads play a significant role in the state's more rural tourism economy outside of Reno and Las Vegas. The Virginia & Truckee (V&T) Commission and the Nevada Northern Railway both have plans for expansion that reflect their popularity with Nevadans and out-of-state visitors alike.



Northern Railway at Ely

Nevada

#### Nevada Northern Railway

The Nevada Northern Railway Museum and the White Pine Historical Railroad Foundation, which operate excursion trains in northeast Nevada, propose to rehabilitate the four miles of trackage from McGill Junction to McGill Depot in the near term and operate its *McGill Junction Route* on this extension. See **Figure 3-8**.

Reopening the closed US93 at-grade crossing between McGill Depot and McGill Junction will require widening the road by two lanes for appropriate grade-crossing protection. The historic McGill depot was restored with state grants by the Nevada Northern Railway. The Railway has an active partner in turning McGill into an attraction that is a beneficent owner of historic properties adjacent to the depot, including the historic Oddfellows Hall and the town theater.

#### Las Vegas to Caliente Excursion

Caliente, in Lincoln County, Nevada offers several destinations for tourists to enjoy. These attractions include hot springs, six state parks and a network of trails for hiking, biking and horseback riding that attracts visitors from around the country and around the world. This is a tourist destination that could be made more accessible to the visitors and residents of Las Vegas with energy efficient, climate friendly passenger trains. [This is a conceptual idea from Lincoln County and UPRR has not been engaged in discussions regarding the use of their rail line for this excursion route.]

Currently reaching Caliente requires a bus or car to travel a circuitous 151 mile route via Nevada 93 that takes about 3 hours, 15 minutes. As can be seen in Figure 3-15: Existing Nevada Rail Network, the South Central mainline of the Union Pacific provides a more direct route between Las Vegas and Caliente of only 126 miles. With current track speeds up to 79 MPH on the UP, passenger trains can average 50 mph and connect Las Vegas and Caliente in 2 hours, 30 minutes thus offering an alternative that is faster than driving.

Using Caliente as an overnight base for the excursion train, multiple roundtrips a day could be operated to provide Caliente and Lincoln County residents with an early morning train for day trips to Las Vegas. This train would also make it possible for tourists to arrange overnight stays in Caliente.

In 2023, NDOT will have a unique opportunity to operate a 30 day demonstration of this service using the first hydrogen fuel-cell powered, Zero Emission Multiple Unit (ZEMU) train in the United States. The ZEMU train is being built for the ARROW Redlands — San Bernardino Rail Project by Stadler in Salt Lake City and will be delivered to California via the rail line through Caliente and Las Vegas. Each ZEMU train has capacity for at least 100 passengers and as many as 12 bicycles for residents of Las Vegas to bring bikes to Caliente. Tourists could rent bikes in Caliente for touring the bike trails.

Figure 3-8: Nevada Northern Railway McGill Extension McGill O Area of Interest McGill Depot McGill Junction Ely Depot MILES **2020 NEVADA STATE RAIL PLAN** NEVADA NORTHERN RAILWAY EXCURSION EXTENSION **Keystone Route** Excursion RR Branch RR McGill Junction Route **US Highway** Hiline Branch State Highway Proposed McGill Depot Extension Other Roads

#### Virginia & Truckee Railway Commission

The V&T Railway, which operates excursion trains in western Nevada in conjunction with the V&T Railroad, is requesting financial assistance for the extension of the Railway into the Carson River Canyon as part of their ongoing rail system reconstruction project between Carson City and Gold Hill, NV. While over 12 miles of the railroad has already been reconstructed through a combination of local, state, federal, and private funding and donations, additional funding will allow for the extension of another 2.25 miles into the river canyon providing sightseeing access to this historical hidden treasure.

Returning the historic right of way to railroad access will effectively eliminate automotive access to the canyon and the accompanying continual problems Carson City has had with illegal dumping into the canyon and the river itself. The problem is pronounced enough at present to require an annual cleanup effort to remove trash and debris, including abandoned vehicles deliberately placed alongside of or within the waters of the Carson River. Necessary environmental assessments and approvals have been issued, 90% construction plans are complete, and the right of way has been secured for this next phase of the project.

**Figure 3-9** shows the planned extension. Long term, the V&T would like to connect closer to downtown Carson City, possibly with the Nevada State Prison grounds located at 3301 E. 5th Street on the east side of Carson City. Such a connection would require the evaluation of alternate alignments, additional river crossings, environmental documentation, and additional funding.

In the near-term, The V&T has plans to improve the safety of its railroad crossings. At F Street in Virginia City, four streets and the entrance to the Events Arena West intersect with the railroad at various angles. The complex sightlines for motorists and railroad operations are protected by a railroad crossing with aging signal components. The V&T is proposing an upgrade of this railroad crossing to improve the operating safety of its excursion trains and motorists using the railroad crossing.

V&T has identified other railroad crossings to be evaluated for safety improvements including one location that has the steepest railroad grade on the sharpest railroad curve and crosses the steepest roadway in the state, just below the sharpest roadway curve in the state.

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Figure 3-9: V&T Railway Extension

# Nevada Southern Railway – "The Hoover Dam Limited"

Commuter rail service between Las Vegas and Henderson was proposed in the Nevada State Rail Plan prior to 2012 and was subject to intense community opposition.<sup>14</sup> A decade later, this corridor, which includes the Nevada Southern Railway, is worthy of a revisit.

In service of reducing rental car congestion to visit the Hoover Dam as well as attracting tourist dollars outside of Las Vegas proper, it is proposed that local governments consider a partnership with Union Pacific Railroad and the Nevada State Railroad Museum in Boulder City to create a unique rail experience to attractions around the Hoover Dam for Las Vegas tourists and convention attendees.

<sup>&</sup>lt;sup>14</sup> Nevada Department of Transportation, "2012 Nevada State Rail Plan", Table 3-1, pg. 3-27, source link.

#### Las Vegas Xpress X-Train Los Angeles to Las Vegas

Specialty passenger rail company Las Vegas Xpress has plans to operate luxury excursion trains between San Bernardino, CA, and a new rail station they would construct in Las Vegas. Branded as X-Train, the concept has been under consideration for a while, including back in the 2012 Nevada Strategic Rail Plan. According to Las Vegas Xpress' website the company is targeting the launch of X-Train services in September 2021. Their proposal is to utilize existing locomotives, cars, and Union Pacific tracks under contract with Amtrak, and operate a Friday-to-Sunday schedule. According to an August 1, 2020 report in the Las Vegas Review-Journal the company has yet to finalize operating agreements with Union Pacific and Amtrak, confirm the Las Vegas station location, or secure the \$100MM in private financing needed for the project.

# B-3. Commuter Rail Improvements

There are several opportunities for new-start rail service utilizing existing infrastructure and taking advantage of established travel patterns outside of robust passenger rail corridors. They include a new commuter rail service between Reno and Innovation Park, Reno Area Transit Service, and opportunities to utilize the new Brightline West intercity trackage for Nevada commuter rail service, opening in Las Vegas in 2023.

#### Reno, Nevada, and Innovation Park (formerly Tahoe-Reno Industrial Center - "TRIC")

Twenty-four miles to the East of Reno is a 107,000-acre industrial park hosting growing companies like Tesla, Blockchains, Switch, and Google. Presently 12,000 employees commute from Greater Reno to Innovation Park for work. The projected growth for Innovation Park employment to 25,000 has created concerns for capacity on the I-80 corridor and the development patterns that may result.<sup>15</sup>

The Union Pacific *Central Corridor* runs directly east to Innovation Park from Reno's Amtrak station, which is Greater Reno Metropolitan Area's center of highest population. It could become a reliable conduit to Innovation Park with the development of adequate commuter rail service. (See route map in **Figure 3-11**.)

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<sup>&</sup>lt;sup>15</sup> 2019 NDOT Inter-County and Regional Transit Plan

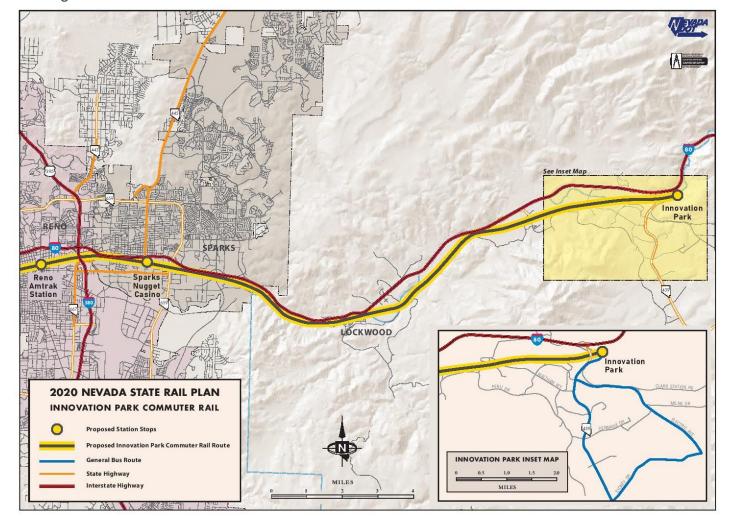


Figure 3-10: Innovation Park Commuter Rail Service

Such service would represent the state's first foray into commuter rail service and would require further study in several areas. Under 49 U.S.C. §28103, commuter rail operators and Amtrak must be insured to a level not exceeding \$200MM per claim. Many states prohibit state agencies from taking on significant liability insurance. Since no state- funded and insured rail passenger service exists in Nevada, a new and separate agency would need to be formed outside of the Department of Transportation. Finally, this effort like any other new service seeking access to the extant national rail network within the borders of Nevada would require negotiations with host railroad Union Pacific to gain adequate access to its central corridor.

If rail service is to be successful it will need to be as attractive as possible in speed, frequency, and access to the front door of workplaces via shuttle bus connections.

<sup>&</sup>lt;sup>16</sup>Federal Transit Administration, "TCRP Contracting Commuter Rail Services Guidebook, Vol. I" pg. 26.

Although Innovation Park is served by a five-mile branch line, it is not expected to offer useful access to workplaces because of its circuitous route, operating speeds that may be limited to 20 MPH, and congestion from freight-switching operations.

Maximizing hourly service to the Union Pacific main line road crossings at Innovation Park (Waltham Way or Clark Station Road) could provide the fastest access to the front door of Innovation Park workplaces using shuttle bus connections. The 2018 TRIC Circulation Options Study recommended shuttle buses to individual work locations as well as the development of a Transportation Management Association that would potentially coordinate and operate this type of service. NDOT is a stakeholder in the group that is attempting to formally implement a TRIC Transit Management Association.

Significant issues for this service will be obtaining track rights on the Union Pacific and insurance coverage in the range of \$200MM+. State ownership of the Reno trench and other Nevada state rail issues potentially could be important in negotiations with Union Pacific for trackage rights. UPRR reserves the right to determine the capacity and capability of its rail lines.

The Reno-Innovation Park Commuter Rail service would address several goals, objectives, and issues identified in NDOT's 2019 Inter-County and Regional Transit Plan. One key finding is that 80% of the Innovation Park workers are driving through Reno-Sparks on I-80, which is well suited to be served by rail stations. Innovation Park is also expected to increase the number of workers to 25,000 later this decade, creating additional residential sprawl, traffic, pollution, and congestion issues, with commuter rail service as an alternative.

This commuter rail service is also consistent with the recommendations of the Sierra Club Toiyabe Chapter Transportation Team and is part of their three-stage proposal (presented in September 2020) for expanding rail passenger service in Northern Nevada.

#### Reno Area Transit Service

With continued population and economic growth in the Reno metro area, the existing road network will be under pressure to handle future traffic volumes. To forestall gridlock or ever costlier highway expansion, RailPAC recommends efforts to preserve and/or acquire existing historic rail rights of way. In addition, operation, ridership, and financial studies should be undertaken to analyze the feasibility of using these local rights of way to provide future passenger transit in the greater Reno area. See **Figure 3-12**.

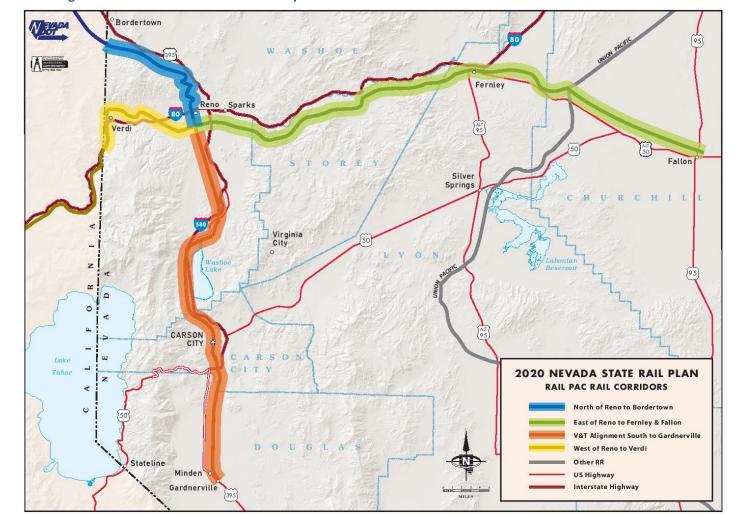


Figure 3-11: RailPAC Reno Corridor Proposals

Routes suggested by RailPAC include the following:

- a) The Reno Branch north to Bordertown and Reno Junction
- b) V&T gradient/Hwy 395 South to Carson City, Minden, and Gardnerville
- c) East to Fernley (MP 276) on the Union Pacific main line and branch line from the main at Hazen (Nevada Subdivision MP 288) to Fallon
- d) West on the Union Pacific main line to California border at Verdi, NV (Roseville Subdivision MP229)

Many elements of the RailPAC vision for Reno Area Transit Service are reflected in the Sierra Club proposal to improve rail passenger service in Northern Nevada. The goals of this initiative include: "reduce traffic congestion; safely and efficiently get people where they need to go; improve air quality; and enable Nevada to meet its clean energy goals."

A key part of the Sierra Club's vision for a Northern Nevada Regional Rail Passenger Service Network is to preserve the future mobility of service on the proposed rail lines by acting now to acquire the railroad

lines and station sites before future real estate development pressures impede building the rail network because of rising land prices and the loss of rail rights of way to abandonment. As discussed in Chapter 4, this would also create the opportunity to co-locate utilities along the rail lines to encourage transit-oriented development and avoid the checkerboard sprawl of development and utility corridors.

To implement their plan, the Sierra Club proposes that "the State of Nevada, in conjunction with Washoe, Storey, and Carson counties, develop a regional passenger authority to oversee creation of a passenger rail system to serve the people of northwest Nevada."

#### Brightline West - Las Vegas Commuter

The Brightline West high speed intercity line between Rancho Cucamonga and Las Vegas is scheduled to be operational in 2023. A commuter regional rail service is recommended between Las Vegas and Primm, which would utilize the new rail infrastructure. A new service would utilize excess capacity of the high speed line along I-15 between Las Vegas and the Nevada state line at Primm to support future Southern Nevada residential development and provide fast rail access to the proposed second Las Vegas Airport at Ivanpah, about 30 miles from McCarran Airport along I-15, between Jean and Primm.

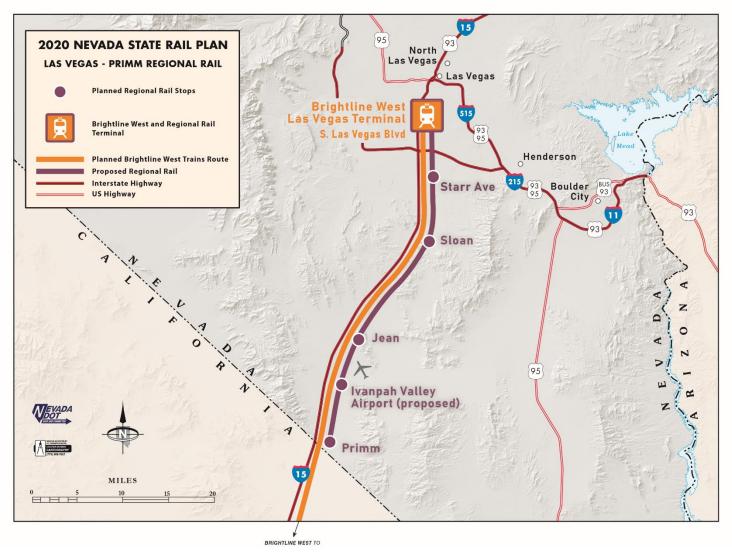
This rail service will provide regional mobility, reduce I-15 traffic congestion, and encourage sustainable expansion of residential areas and transit-oriented communities along this rail line. Although Brightline West is building the Brightline West high speed line to connect Southern California residents and tourists with Las Vegas, utilizing the high speed line infrastructure to operate Las Vegas Regional Rail Service will provide Nevadans with real transportation benefits for the use of the I-15 public right of way. NDOT's arrangements with Brightline West to use the I-15 right of way makes the high-speed line feasible to construct without complex environmental issues and land purchases.

It is possible for a Las Vegas commuter regional service to share tracks with high-speed trains by selling the unused operating slots of its infrastructure to the public agencies funding the service.

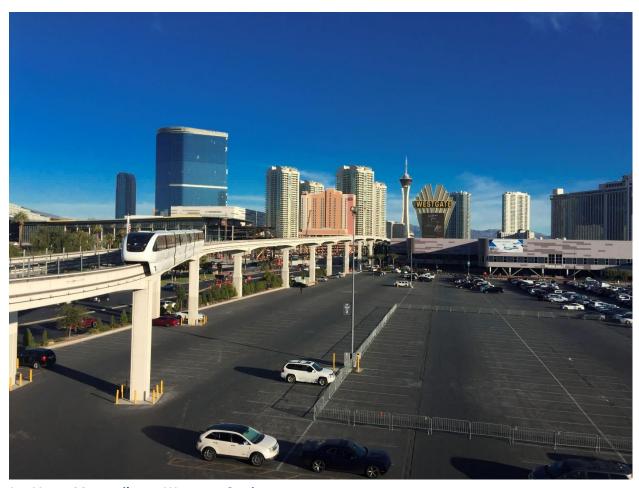
This creates a win-win opportunity to develop local rail service at a fraction of the costs of building a brand-new rail line with the local operator paying Brightline West user fees for the use of track slots and their Las Vegas terminal. Public agencies in Nevada would only need to fund the costs of new trainsets (which could operate up to 125mph in commuter rail service), some additional trackwork, and new stations, as illustrated in **Figure 3-13.** The following are proposed stops with excellent access to I-15 for park and ride stations:

- Starr Avenue
- Sloan
- Jean
- Ivanpah Valley Airport (Brightline West trains could also serve this new airport)
- Primm

Figure 3-12: Las Vegas - Primm Regional Rail



Brightline West's parent company also operates the Brightline passenger rail service in Florida from West Palm Beach to Miami via Fort Lauderdale. Opened in 2018, the Brightline service was originally marketed as a high speed, intercity service but it is now introducing intermediate stations at Boca Raton and Aventura, creating a hybrid intercity and regional commuter operation. Given recent developments at Brightline's Florida franchise, it is especially timely to consider development of local rail service along the I-15 route to Primm, near Las Vegas.



Las Vegas Monorail near Westgate Station

# Extension of the Las Vegas Monorail to Brightline West

The recent decision by Brightline West to develop their Las Vegas station along South Las Vegas Boulevard between Blue Diamond Road and West Warm Springs Road creates an opportunity for NDOT to facilitate development of intermodal opportunities between Brightline West, Las Vegas Monorail, Allegiant Stadium, and the McCarran Airport, the Las Vegas strip, and the Convention Center.

A five-mile extension from the MGM Grand to the Brightline West Las Vegas Station would add new monorail stations at Luxor/Mandalay Bay, Allegiant Stadium, McCarran Airport (Rental Car Center), and Brightline West Las Vegas.

The Las Vegas Monorail station at the McCarran Car Rental Center would provide access to the airport via the existing car-rental shuttle buses.

The Las Vegas Monorail is the only form of electrically powered mass transit in Nevada. It can utilize solar, hydro-electric and/or wind power to provide carbon-neutral transportation. Extending the Las Vegas Monorail would provide Brightline West passengers with zero-emission access to the Las Vegas Convention Center, hotels, and casinos. The proposed extension of the electrically powered Las Vegas Monorail represents the most significant opportunity to reduce greenhouse gas emissions in Las Vegas

and advance the climate goals of Governor Sisolak's Executive Order 2019-22. Section 6. B of the Governor's executive order specifically calls for projects which can provide "Support for transportation electrification..."

Service to the McCarran Airport terminals via zero-emission shuttle buses from the proposed monorail stop at the McCarran Car Rental Center would also significantly reduce Las Vegas traffic congestion and pollution for thousands of tourists travelling between the airport, hotels, the convention center, and the stadium.

In conjunction with the proposed Las Vegas-Primm Regional Rail service described above, the Las Vegas Monorail Extension would provide car-free flexibility, mobility, and accessibility for rail commuters to access major employment destinations along the monorail route such as the McCarran Airport, Allegiant Stadium, casinos, hotels, and the convention center. This would help diminish traffic congestion on I-15.

Since the Las Vegas Monorail extension would provide Brightline West significant value for its passengers to easily connect to Allegiant Stadium, Las Vegas resort hotels, the Convention Center, McCarran Airport, and ease of access to the rental car center, their private investment partners are potential sources to finance the extension. In fact, the monorail extension would also create additional value for the retail, residential, and commercial real estate development that Brightline West is planning on the station site because of direct monorail service to the airport and Las Vegas attractions.

The Las Vegas Monorail Extension would help fulfill the State Rail Plan vision for a safe, secure, attractive, energy-efficient, cost-effective, and reliable alternative to auto transportation, with intermodal connectivity that enhances economic and environmentally sustainable travel within the state. **Figure 3-14** illustrates the potential stops for extending the Las Vegas Monorail to the Brightline West Las Vegas Terminal.

**2020 NEVADA STATE RAIL PLAN** CONNECT RAIL NEVADA PROPOSED LAS VEGAS MONORAIL EXTENSION **Proposed Monorail Stations Proposed Monorail Extension** MGM GRAND Interstate Highway (CURRENT END OF LV MONORAIL) MILES LUXOR/MANDALAY BAY ALLEGIANT STADIUM MCCARRAN INTERNATIONAL AIRPORT MCCARRAN AIRPORT CAR RENTAL **BRIGHTLINE WEST** LAS VEGAS STATION

Figure 3-13: Las Vegas Monorail Extension to Brightline West

# B-4. Challenges of Developing Passenger Rail

The preceding sections have described numerous proposals and projects to develop passenger rail services in Nevada. These range from relatively straightforward amendments to existing services, such as Amtrak's *California Zephyr* upgrades to more complex development of existing rail track into new passenger services such as the route from Reno to Innovation Park.

The description of each proposal included the benefits and return on investment, with a focus on the value generated by each project. Although some challenges were also referenced in these descriptions, such as host railroad permissions, this was covered exhaustively. This section provides more details on the policy, funding, and ownership challenges that impact rail passenger development.

#### **Policy & Funding**

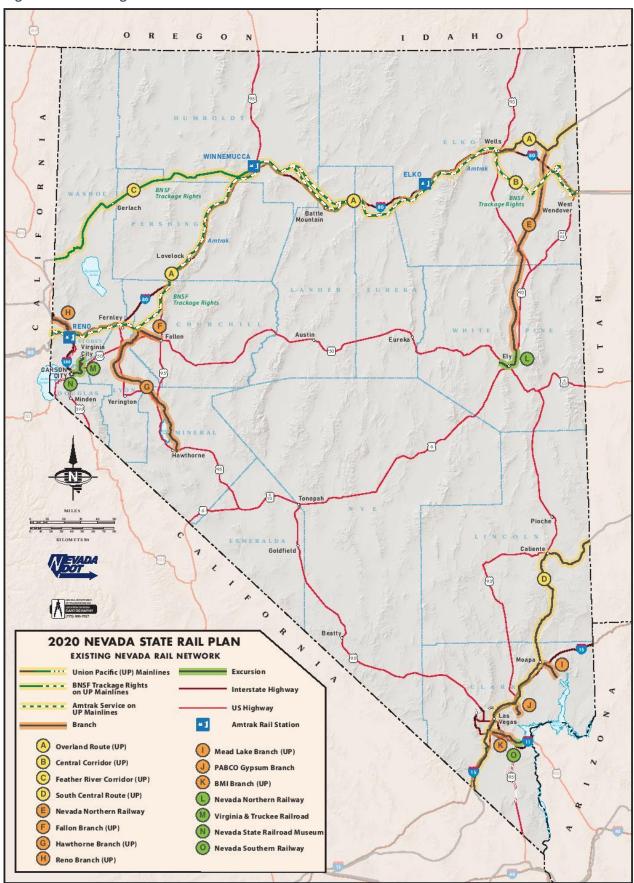
Per NRS 705.428, the Nevada Department of Transportation may contract for the construction, improvement, or rehabilitation of the trackage and other rail properties of any rail line, but no such contract may require the expenditure of state money unless previously authorized by the Legislature. Moreover, as Amtrak is a federally funded intercity passenger railroad, the 2008 PRIIA legislation, Section 209, stipulates that all Amtrak-related passenger services under 750 miles be funded by the states they serve. As Nevada, like all other states, subsidizes highways and airports that otherwise compete with passenger rail, the lack of state funding for passenger rail service precludes public options pending new state legislation.

As a result of these constraints, new passenger rail development in the U.S., especially short- to medium-length intercity routes, has been primarily through private-sector initiatives. Examples include the existing Brightline (South Florida) service and the planned Texas Central and Brightline West services. These private initiatives are predicated on extensive publicly funded studies and research, such as the 2014 FRA's Southwest Multi-State Rail Planning Study, which identify attractive corridors for development and their commercial viability. States like Nevada with Brightline West, benefit from this private-sector investment in passenger rail infrastructure.

#### Ownership and Access

Every mile of existing rail track in Nevada is privately owned. There are four excursion railroads and one branch line owned and operated by Pabco Gypsum. Union Pacific Railroad, the nation's largest Class I rail company, owns all the main line routes crossing the state, including the path of the only existing passenger service, the *California Zephyr*. **Figure 3-15** illustrates the existing rail network in Nevada.

Figure 3-14: Existing Nevada Rail Network



All the proposals for passenger rail development in this report, except for Brightline West and the Las Vegas Monorail extension, utilize existing tracks. Therefore, permission and access to these privately owned rights of way is fundamental to the development of passenger rail in the state. Union Pacific is the host railroad in most passenger rail development projects listed in this report and is therefore a critical partner and factor in realizing these opportunities.

Negotiation with the host railroad encompasses capacity and access. In terms of capacity, existing infrastructure may require upgrades to support the passenger rail vehicles being proposed, the speeds envisaged, and the construction of stations on the host company's line. In terms of access, new passenger rail operation requires suitable paths to operate the service with the optimal schedule times. Detailed consideration must be given by the host railroad of their present and possible future access needs before committing to any developments that could affect their operations.

Even existing Amtrak services are subject to negotiation with Union Pacific, as sharing the rails has a direct impact on service performance. Amtrak's PRIIA-required study of its *California Zephyr* service found in 2010 that only 30 percent of this route's trains operated on schedule, a condition that continued until 2019, according to Amtrak's Host Railroad Reports. Amtrak's evaluation attributed delays on the route to speed restrictions, dispatching priorities, and right-of-way conditions. Single-track main line operations with existing sidings east of Elko between West Wendover and Wells and west of Winnemucca to Reno have historically resulted in freight-passenger congestion and delays.

Host railroad partnership is a crucial factor in passenger rail development in the state and resulting agreements on access and capacity investments will have a direct contribution to the benefit-cost analysis of the projects.

### **B-5.** Conclusion

The passenger rail service recommendations described in this chapter, and summarized in the table below, are designed to be implemented in collaboration with federal, state, local agencies, public stakeholders, and private interests such as Union Pacific as described throughout this chapter. Most of the recommendations focus on improving rail passenger service in Nevada by utilizing existing railroad infrastructure to the maximum extent possible. This will help minimize project costs and the lead time needed to implement recommendations.

Summary of Passenger Rail Service Recommendations

Recommendation	Page Location
Utilize existing railroad infrastructure for expanded rail passenger service	Throughout Chapter 3
Initiate Reno/Sparks to Fernley commuter rail service along the I-80 corridor via Union Pacific	Chapter 3, page 29
3. Analyze the potential and develop Reno Area Transit routes as proposed by RailPac and the Sierra Club on Union Pacific mainlines and branch lines	Chapter 3, page 30

Re	commendation	Page Location
4.	Create additional Northern Nevada stops on Amtrak's California Zephyr to improve mobility for rural Nevada communities on Amtrak's Chicago – Oakland long distance service on the Union Pacific route	Chapter 3, page 5
5.	Evaluate and develop the "C"-Route: Las Vegas to Reno via Central California utilizing existing UP, BNSF lines and in the future utilize the Brightline West and California High Speed Rail lines to speed up service	Chapter 3, page 16
6.	Extend Amtrak service on the Capitol Corridor to Reno-Sparks via the Union Pacific Railroad	Chapter 3, page 10
7.	Re-institute operation of Amtrak's Desert Wind: LA - Las Vegas – Salt Lake City on the Union Pacific	Chapter 3, page 20
8.	Establish the Hoover Dam Limited: Las Vegas to Boulder City (Hoover Dam) on the Union Pacific and the Nevada Southern Railway	Chapter 3, page 26
9.	Organize collaboration between NDOT and stakeholders: Union Pacific, Amtrak, RTC of Washoe County, RTC of Southern Nevada, RailPAC, Sierra Nevada, Brightline West, Nevada Southern Railway, Caltrans	Proposals throughout Chapter 3

The development of intercity and commuter rail would be a major contribution to meeting the state's environmental, economic, and quality-of-life goals. Although Nevada has a paucity of passenger rail service, this chapter highlighted multiple opportunities for expansion.

The state's existing rail footprint offers a firm foundation for cost-effective passenger rail projects. Existing tracks and rights of way mitigate the sizeable land acquisition and engineering costs that often thwart new service development.

The other area of great potential for increased passenger service is new private-sector development. The most prominent example is the Brightline West project. The idea of new, high-speed passenger rail into Las Vegas from Southern California is exciting for numerous reasons, one of which is not yet fully appreciated: The phalanx of new commuter rail options that could be available to Las Vegas and communities in Southern Nevada.

Nevada's existing Amtrak service spanning the north of the state is an established and core national route. There are multiple options to enhance and expand Nevada's existing intercity rail passenger service cost effectively through utilization of a service that is already subsidized by the federal government.



Southbound Onboard the Las Vegas Monorail

This proposed use of the Amtrak line exemplifies a running theme throughout this chapter. Expanding rail passenger service in Nevada is best achieved by leveraging the state's existing assets. In addition, the Brightline West project to construct new, high grade passenger rails into Las Vegas from Southern California is not only highly advantageous in its own right, but it opens the door to new commuter rail options.

Nevada is in a uniquely advantageous position to leverage these advantages and develop expanded rail passenger service in the state.