ROLLIN’ ON DOWN THE RAIL: CAN TEXAS LEAD THE NATION IN DEVELOPING EFFICIENT HIGH-SPEED RAIL THIS TIME AROUND?

Comment

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I. THE THREAT OF MORE CONGESTION

The Texas Department of Transportation’s (TxDOT) core mission is to “provide safe and efficient movement of people and goods, enhance economic viability and improve the quality of life for the people that travel in the state of Texas by maintaining existing roadways and collaborating with private and local entities to plan, design, build and maintain expanded transportation infrastructure.” TxDOT depicts eight modes of travel on its website: planes, bikes, trucks, railroads, cars, boats, buses, and motorcycles. With over eighty million miles of roads in Texas, however, mobility options without a car are almost nonexistent for most people in the state.

In 1994, the United States Department of Transportation suggested the following:

Without any measure to curb future travel demands, additional capacity is required to alleviate congestion. However, due to the scarcity and cost of right-of-ways, high construction costs, and environmental considerations, it is becoming increasingly difficult to increase the lane-miles of infrastructure in many urban areas. Thus, to address the needs of severely congested corridors, other improvements and initiatives must be implemented in conjunction with, or in place of, roadway expansion.

To add to this problem of traffic congestion, the Texas government expects the population to increase from current levels of around twenty-five million to over forty million by 2050. Without additional infrastructure to handle this anticipated growth, congestion will lead to not only increased delays but also economic loss. Simply building more highways and widening existing roads will do nothing to reduce traffic and, in fact, will actually increase traffic congestion in the future.

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6. BURNS, supra note 4, at 42-43. In the Dallas–Fort Worth area alone, the economic costs of traffic congestion are estimated at $7.6 billion by 2010. Id. at 43. Sitting in traffic can consume up to five years of a person’s life according to one estimate. Id.
DEVELOPING EFFICIENT HIGH-SPEED RAIL

The Texas Triangle, a region roughly bounded by the area between San Antonio, Houston, and Dallas–Fort Worth, is where over seventy percent of Texans will call home by 2020.\(^8\) Outside of vehicles, mobility within this corridor is primarily made up of passengers traveling by airplane, which accounts for about one-fourth of airport capacity within the region’s urban centers.\(^9\) Transportation by both car and airplane is extremely dependent on oil, and the transportation sector as a whole is the country’s largest user of petroleum products.\(^10\) This reliance on oil, in turn, creates smog and air pollution that affects everyone living within these regions, creating negative consequences for individual health and additional health care costs.\(^11\)

Public transportation for middle- and long-distance travel is especially important to help solve many of the issues that increased population will bring about in Texas.\(^12\) “Group travel saves energy and is both economical and more sustainable.”\(^13\) After spending billions of dollars on road construction, all that the government has managed to accomplish is increasing the amount of time people spend in their vehicles on a daily basis.\(^14\) Without considering the long-term effects, Americans, and Texans specifically, choose cars for most of their travel because of the way the government subsidizes their use and because of limited alternatives.\(^15\) The trucking industry is also heavily subsidized to make it a more economically favorable option without taking into account the real effects.\(^16\) It is misguided and expensive to continue insisting on building roads instead of rails because one lane of track can move as many people as fifteen lanes of highway.\(^17\)

The purpose of this Comment is to examine a viable alternative to more roads and congestion, specifically the options offered by high-speed rail in developing more advanced, sustainable transportation to move people between cities and regions. First, Part II looks at the history of two former passenger rail systems that helped define the cities of Dallas and Austin in the early twentieth century until the rise of the automobile. Part III then discusses the role of government in developing highways, both at the national and state

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8. See BURNS, supra note 4, at 37.
9. Id. at 43 (discussing economic and safety concerns of airport congestion and delays).
10. See id. at 45-46. Texas ranks second nationally for fuel use, consuming 8.5 billion gallons per year for highway travel, according to the Federal Highway Administration. Id.
11. See id. (discussing health care expenditures and premature deaths due to air pollution).
13. Id. Investing in public transportation ensures a strong alternative to car travel. Id.
14. DUANY, PLATER-ZYBERK & SPECK, supra note 7, at 91.
15. See id. at 94. “[G]overnment subsidies for highways and parking alone amount to between 8 and 10 percent of our gross national product, the equivalent of a fuel tax of approximately $3.50 per gallon. If this tax were to account for ‘soft’ costs such as pollution cleanup and emergency medical treatment, it would be as high as $9.00 per gallon.” Id.
16. Id. at 95. Compared to transporting the same amount by rail, trucks use fifteen times the fuel. Id. at 95-96.
17. Id. at 96; JAMES H. KUNSTLER, HOME FROM NOWHERE: REMAKING OUR EVERYDAY WORLD FOR THE 21ST CENTURY, 67, 99 (1998)).
levels. It goes on to examine the lobbying efforts behind this trend, the subsidization that encourages driving, and finally the effect on our cities. Next, Part IV takes a look at the first attempt by Texas to develop a high-speed rail system in the 1980s and the 2005 evaluation of the state’s rail networks under the Texas Rail System Plan. Part V assesses recent legislation focusing on passenger rail networks at both the federal and state level. The new Texas Rail Plan, released in November of 2010, is scrutinized as it relates to intercity and high-speed passenger rail systems in Part VI. Part VII studies examples of high-speed rail systems in development in Florida, looking to become the first state with a high-speed rail line, and Great Britain, a nation playing catch-up with its European neighbors in regards to high-speed rail connectivity. Ultimately, this Comment offers ideas on how Texas can successfully develop high-speed rail this time around and lead the nation in connecting its people, cities, and regional economies through a more sustainable form of transportation.

II. HISTORY OF TEXAS’S PASSENGER RAIL SYSTEMS

In the early- to mid-nineteenth century, settlement in Texas was primarily along the eastern and southern edges of the state, as well as the Gulf Coast, where rivers provided access to fresh water. Most Texas rivers were not deep enough for transportation throughout the year, and roads were generally of poor quality, especially when wet. To facilitate the movement of people and goods, the Republic of Texas chartered the Texas Railroad, Navigation, and Banking Company, the purpose of which was to construct railroads. The state granted additional charters, and investment in railroads expanded to the point that, by 1861, nine railroad companies existed along with 470 miles of track, mostly centered around Houston. To aid the construction of railroads, many cities and counties issued bonds, and the state provided loans and land grants. By the early 1870s, Texas railroads stretched further north to Corsicana, Dallas, and soon after, the Red River. By 1880, Texas had 2,440 miles of railroad, and within the next ten years it would add an additional 6,000 miles. Railroads expanded west, connecting southeast Texas with El Paso and Fort Worth with the New Mexico state line. Between 1900 and 1932 the railroad expanded into areas of the state still without lines: the Rio

19. Id.  
20. Id.  
21. Id.  
22. Id.  
23. Id.  
24. Id.  
25. Id.
Grande Valley, the South Plains, and the Panhandle. Texas had over 17,000 miles of rail lines—more than any other state in the country—a title that Texas maintains today.

A. The Dallas Rail Experience

In the early 1900s, Dallas saw an explosion in growth and rail services because the “junction of two major rail lines would draw people and businesses from all over the U.S. as well as neighboring towns.” With rail lines crossing all over the city, especially the central business district, Dallas became a confusing place to try to navigate by rail. Plans were developed to construct a “belt” line around Dallas to help alleviate congestion in the central business district and a new “union” station along the western edge of downtown. Roughly eighty train arrivals and departures per day occurred at this new terminal during the height of business in the late 1920s.

As the decades passed, the automobile and the interstate highway system signaled America’s movement away from trains, and affordable air travel only added to the problems for passenger rail. By 1969, Dallas was the largest United States city without passenger trains in operation. In recent times, however, Dallas is experiencing a revival of passenger rail, with Amtrak, Dallas Area Rapid Transit Rail (light rail), and Trinity Railway Express commuter train service (between Fort Worth and Dallas) all passing through Union Station. In an ironic twist of fate, “rail has become the ideal mode to alleviate future congestion in the air and on the roads in Dallas and North Texas. The very form of transportation that put the region on the map will ultimately play a significant role in addressing critical transportation issues.”

B. Austin’s Electric Streetcars

Around the turn of the twentieth century, electric urban rail networks began to emerge in and around cities across Texas. Most of these lines had little to no freight capacity, which made them reliant on paying passengers and, thus, more susceptible to competition from automobiles. In Austin, mules were used to pull the first streetcars along tracks laid mostly in and

26. Id.
27. Id.
29. Id.
30. Id.
31. Id.
32. Id.
33. Id.
34. Id.
35. Id.
36. The Handbook of Texas Online, supra note 18.
37. Id.
around the downtown area in the late 1800s. Streetcars soon became electrified and additional track added to provide passengers an efficient alternative to move across the city. The Austin Electric Railway Company had twenty-three miles of track in total, but without tax support, turning a profit proved to be a challenge. By 1939, the streetcar lines were operating on seventeen miles of track as buses and automobiles became the main forms of transportation. A year later, however, Austin’s streetcar system ceased to exist, and the city removed the majority of tracks to provide steel for World War II.

With a keen eye toward future problems, an advertisement for the former Austin streetcar company tried to encourage ridership by addressing two problems familiar to most people living in cities today. “Riding streetcars, it said, is not only ‘more economical, but helps to solve the very difficult and ever growing parking problem, which is intimately tied into our traffic problem.’” In what appears to be history repeating itself, Austin opened an urban light rail line on March 22, 2010, almost exactly seventy years after it dismantled its previous one.

III. THE GOVERNMENT’S ROLE IN THE DEVELOPMENT OF HIGHWAYS

It can be said that most of our major environmental problems are a result of the abundance of oil. In this century, most of the problems we will face are due to the increasing lack of oil. To become more environmentally friendly and reduce energy consumption, concentrating people in denser urban areas is key. Governments tend to negate opportunities to support public transit in dense areas by building and expanding highways, often at huge costs, making it easier to get around in automobiles.

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39. See id.
40. Id.
42. Id.
43. See id.
44. Id. (quoting an advertisement for the Austin Street Railway Company).
45. See Wear, supra note 38.
46. DAVID OWEN, GREEN METROPOLIS: WHY LIVING SMALLER, LIVING CLOSER, AND DRIVING LESS ARE THE KEYS TO SUSTAINABILITY 49 (2009).
47. Id.
48. See id. at 137.
49. See id. at 130.
A. The Interstate Highway System

As automobiles became the preferred choice of travel, the pressure to build superhighways linking both sides of the country began to mount.\textsuperscript{50} Congress decided to look at the idea, and in 1938, Congress asked the Bureau of Public Roads (BPR) to study a six-route toll network.\textsuperscript{51} The BPR issued a two-part report analyzing both toll roads and free roads as a means of transcontinental travel.\textsuperscript{52} The initial recommendation was for 43,000 kilometers of free highways containing “[m]ore than two lanes of traffic . . . where traffic exceeds 2,000 vehicles per day, while access would be limited where entering vehicles would harm the freedom of movement of the main stream of traffic.”\textsuperscript{53} Fearing a surplus of American soldiers returning home from the war unable to find jobs, President Roosevelt saw the construction of an interstate highway system as a way to promote jobs and counter fears of returning to the Depression.\textsuperscript{54}

In 1943, the BPR issued an updated report based on the recommendations of the 1939 edition and proposed a 63,000 kilometer interregional highway system.\textsuperscript{55} The Federal-Aid Highway Act of 1944 made few changes to the report; however, it notably expanded the designated 65,000 kilometers for a “National System of Interstate Highways.”\textsuperscript{56} The Public Roads Administration (PRA) began working with state and local officials to develop design standards for the highways.\textsuperscript{57} In 1947, the PRA released plans for the first 60,000 kilometers of interstate highways, but more changes were to come.\textsuperscript{58} By 1950, the United States was involved in another war, this time in Korea, and the importance of an interstate highway system shifted to meet the needs of the military.\textsuperscript{59}

The election of President Eisenhower triggered a marked acceleration in efforts to get the ball rolling on the interstate highway system.\textsuperscript{60} Lucius D. Clay headed the development of a financing scheme to pay for the construction; the plan called for two billion dollars in investment from the

\begin{flushleft}
\textsuperscript{51} Id.
\textsuperscript{52} Id. The amount of transcontinental traffic could not support tolled superhighways. \textit{Id.}
\textsuperscript{53} Id.
\textsuperscript{54} Id.
\textsuperscript{55} Id. This system would be “designed to accommodate traffic 20 years from the date of construction.” \textit{Id.} It was also noted that the highways should “promote a desirable urban development.” \textit{Id.}
\textsuperscript{56} Id.
\textsuperscript{57} Id. The standards called for uniform design upon similarities in conditions: traffic, population density, topography, and other similar features. \textit{Id.}
\textsuperscript{58} Id.
\textsuperscript{59} Id.
\textsuperscript{60} See \textit{id.} He saw protecting the interests of citizens in a safe and efficient highway system as extremely important. \textit{Id.}
\end{flushleft}
states and twenty-five billion dollars from the federal government.\textsuperscript{61} While the Clay Committee report would not survive Congress, many of its provisions were ultimately put forth in both House and Senate bills.\textsuperscript{62} The Federal-Aid Highway Act of 1956 emerged from conference committee containing compromises to satisfy both sides.\textsuperscript{63} The Secretary of Commerce, Sinclair Weeks, went on to call this “the greatest public works program in the history of the world.”\textsuperscript{64}

\textbf{B. The Texas Solution: Toll Roads}

Within Texas, the expansion of highways and road capacity in general has not kept pace with a rapidly expanding population base.\textsuperscript{65} TxDOT suggests that funding is the largest obstacle standing in the way of expanding more roads.\textsuperscript{66} Building toll roads is the agency’s preferred way to increase capacity because toll roads can be built with money borrowed upfront and then paid back through toll fees, rather than waiting on gas-tax money.\textsuperscript{67} According to TxDOT, toll roads provide citizens more choices: they charge only those drivers who want to use them, reduce emissions because cars spend less time idling in traffic, and save drivers time by allowing them to bypass congestion.\textsuperscript{68}

\textbf{C. Lobbying Efforts}

Many lobbyists work to support private transport politically; they have come to be known collectively as the “road lobby.”\textsuperscript{69} Interstate highways are the end result of an aggressive lobbying campaign by industries that would benefit most from its construction: the asphalt, construction, automobile, coal, steel, glass, rubber, and trucking industries.\textsuperscript{70} Oddly enough, at the time...

\textsuperscript{61} Id. The Clay Committee sought to issue $25 billion in bonds to finance this system through a Federal Highway Corporation. Id. The revenue brought in by gas taxes would be used to pay off the bonds over thirty years. Id.

\textsuperscript{62} See id.

\textsuperscript{63} See id. The federal government would cover ninety percent of overall costs. Id.

\textsuperscript{64} Id.

\textsuperscript{65} About Toll Roads, TEX. DEP’T OF TRANSP.: TEXAS TOLLWAYS, http://www.texastollways.com/content/about-toll-roads.php (last visited Jan. 26, 2012) [hereinafter TEXAS TOLLWAYS]. The state’s population has gone up by fifty-seven percent and road capacity has increased by eight percent. Id.

\textsuperscript{66} Id. Gas taxes, at the state and federal level, cannot generate enough money to keep building new roads and maintaining the current ones. Id.

\textsuperscript{67} See id. New tolled roads can be constructed five times faster than waiting for funding through gas taxes. Id.

\textsuperscript{68} Id.

\textsuperscript{69} SOCIAL DETERMINANTS OF HEALTH, supra note 12, at 144.

Congress passed the Interstate Highway Act of 1956, only about half of families in America owned a single car. The public was not demanding a new road system be built. Thus, as Sclove and Scheuer explained, “the asphalt highways—and the society around them—are a reflection of successful lobbying by powerful business interests and external compulsion, not simply the free choices of consumers.” These same interests continually resist any changes outside of highway creation and expansion to solve traffic problems, even though “it takes fifteen lanes of highway to move as many people as one lane of track.”

D. Subsidizing Automobile Travel

Originally, the proposed way to pay for the interstate highway system was through tax increases. This largely failed because of lobbying by industries that would benefit from the interstate highway system but did not want to pay for it. What was ultimately agreed upon was increased revenue from highway users, including increases in the gasoline tax, to be put in the Highway Trust Fund.

Government subsidies of automobile travel and the highway systems to support it continue to hamper efforts to move away from car-based human environments. These subsidies amount to approximately $5,000 per car per year, which gets passed on to citizens in the form of more expensive products, as well as additional income, property, and sales taxes. Thus, drivers are not paying the full price of driving; this is one of the main reasons “American cities continue to sprawl into the countryside.” The trucking industry continues to receive heavy subsidies compared to rail, despite the fact that trucks are consuming fifteen times as much fuel for doing the same job.

employee base of most of these industries. See id. The petroleum industry also favored the interstate highway system. Id. 71. See Richard Sclove & Jeffrey Scheuer, For Architects of the Info-Highway, Some Lessons from the Concrete Interstate, THE GHOST IN THE MODEM, http://loka.org/alerts/loka.1.6.txt (last visited Sept. 30, 2012) [hereinafter Concrete Interstate]. The majority of people used public transportation. Id. 72. See id. 73. Id. 74. Duany, Plater-Zyberk & Speck, supra note 7, at 96. 75. See Richard F. Weingroff, Original Intent: Purpose of the Interstate Highway System 1954-1956, U.S. DEP’T OF TRANSP.: FED. HIGHWAY ADMIN., http://www.fhwa.dot.gov/infrastructure/originalintent.cfm (last visited Jan. 26, 2012) [hereinafter Original Intent]. 76. See id. 77. See id. 78. See Duany, Plater-Zyberk & Speck, supra note 7, at 94-97. 79. Id. at 94. The costs of driving are forced upon everyone, even those who do not drive. See id. Non-drivers increasingly suffer when the public transportation they depend on gets cut because it cannot compete with heavily subsidized highways. Id. at 94-95. 80. Id. at 95. 81. See id. at 95-96. The government pays out huge subsidies to trucks without a thought but cautiously scrutinizes anything allocated for transit. Id.
Any attempts at raising the gas tax are immediately deemed “anti-business.”\textsuperscript{82} Other reasons like fighting global warming and supporting public transit are also offered but rejected.\textsuperscript{83} “[T]he real justification is economic: subsidized automobile use is the single largest violation of the free-market principle in U.S. fiscal policy.”\textsuperscript{84}

**E. A Nation of Suburbs**

The interstate highways, especially in cities, had the profound effect of destroying many viable low- and middle-class neighborhoods, often populated by minorities.\textsuperscript{85} Those who could afford it fled along the very interstates taxpayers subsidized to the suburbs, taking with them many economic and cultural resources from the cities.\textsuperscript{86} The interstate highways took the former residents of the cities out past the reach of mass transit as well.\textsuperscript{87} Because most suburbs lacked mass transit and were laid out in very low-density patterns, “distances between stores, workplaces and homes there became so great that one couldn’t live there very effectively without having a car.”\textsuperscript{88} This caused suburbanites to become almost entirely dependent on automobiles.\textsuperscript{89} And with more cars came more congestion, one of the main problems the interstate highway system was built to relieve.\textsuperscript{90}

With this realization in mind, thinking about transportation as a connected, compatible system, rather than simply saying the answer is more roads, is necessary.\textsuperscript{91} Citizens across the country, and especially in Texas, have become prisoners of economic geography because suburbanization after World War II made almost all forms of transportation besides automobiles impractical.\textsuperscript{92} The origins and destinations of most people are too far apart to sustain rail services, which typically require greater population densities like in

\begin{itemize}
  \item \textsuperscript{82} Id. at 96.
  \item \textsuperscript{83} See id.
  \item \textsuperscript{84} Id. America’s ability to compete globally is greatly undermined due to the economic inefficiencies of subsidizing automobiles, estimated at $700 billion annually. Id. at 96-97.
  \item \textsuperscript{85} See Concrete Interstate, supra note 71.
  \item \textsuperscript{86} See id.
  \item \textsuperscript{87} Wilens, supra note 70.
  \item \textsuperscript{88} Id.
  \item \textsuperscript{89} See id. More and more Americans were forced to purchase automobiles to hold jobs, shop, or go just about anywhere. See Concrete Interstate, supra note 71.
  \item \textsuperscript{90} See Original Intent, supra note 75. Many of the comments about congestion today resemble those comments from the mid-1950s. Id.
  \item \textsuperscript{91} See Ben Wear, Did Austin’s Transportation Bond Scoring Have Anti-Road Bias?, AUSTIN AM.-STATESMAN (Oct. 23, 2010, 11:27 PM), http://www.statesman.com/news/special-report/statesman_focus/did-austins-transportation-bond-scoring-have-anti/nRyz9. Experience has shown that reacting to existing road congestion by adding more capacity is not working. See id.
\end{itemize}
Europe or Asia. A shift from spending on road-based capacity to investments in transit, walking, and biking, as well as driving, is required to change the structure of the cities in which we live. Suburbanites find themselves increasingly isolated from the world around them, as “[t]he noise and danger from growing numbers of autos dr[i]ve children’s games out of the street, and neighbors and families off their front porches.” It is not uncommon these days to see suburbs without sidewalks—a sure signal that there is nothing worth walking to.

IV. THE TEXAS INTERCITY PASSENGER RAIL SITUATION

Successfully providing adequate transportation is a constant and ever-expanding challenge in Texas. Since the rise of the automobile in the late 1930s, intercity rail services in Texas have declined to the point that, currently, there are three different Amtrak routes running at least partially through Texas: the Heartland Flyer, the Sunset Limited, and the Texas Eagle. The Heartland Flyer offers daily service from Fort Worth to Oklahoma City. Aboard the Sunset Limited, stops are offered along a path from Beaumont, through Houston and San Antonio, to El Paso. Finally, the Texas Eagle stops in Texarkana, Dallas, Austin, San Antonio, El Paso, and smaller points in between. This is the full extent of Amtrak service in Texas.

A. The First Attempt: The Texas High-Speed Rail Authority

Since the 1970s, the possibility of high-speed rail connecting major cities in Texas surfaces from time to time. In 1982, the Texas Legislature received a study conducted the previous year, which highlighted the existing need for improved passenger rail within the Texas Triangle. A study conducted by the Texas Transportation Institute (TTI) at Texas A&M University in 1985 examined the feasibility of using existing right-of-ways

93. See id. The number of people living in the city centers fell from 56 percent to 32 percent between 1950 and 2000. Id.
94. See Wear, supra note 91.
95. Concrete Interstate, supra note 71.
96. See id.
97. See BURNS, supra note 4, at 9.
102. See West Train Routes, supra note 98.
103. See BURNS, supra note 4, at 12.
104. See id. at 13.
along interstate highways for high-speed rail and concluded it was a possible option.\(^{105}\) The corridor between Dallas and Houston was favorable to passenger rail because of the distance of travel, and the study also noted reductions in highway and airway congestion would result from developing high-speed rail.\(^{106}\)

The high-speed rail pursuit really began taking shape in 1987 when the Texas Legislature directed the Texas Turnpike Authority (TTA) to study high-speed rail between cities of the Texas Triangle.\(^{107}\) At that time, the technology considered was in use in Europe and Japan, and the TTA study concluded that a “high-speed means of travel . . . would be a considerable improvement over earlier and existing (Amtrak) passenger train service in Texas.”\(^{108}\) The TTA study concluded the high-speed rail project would be highly marketable, attracting intercity travelers, and form a viable alternative to car and air travel.\(^{109}\)

In 1989, the 71st Texas Legislature created the Texas High-Speed Rail Authority (THSRA).\(^{110}\) The THSRA was given the power to award an exclusive franchise to construct and operate the high-speed rail lines if found to be in the public interest.\(^{111}\) The THSRA governing board solicited potential applicants for the high-speed rail lines, and two consortiums ultimately applied: Texas FasTrac and Texas TGV.\(^{112}\) Six different firms reviewed franchise applications and each firm submitted a report of its findings to the two applicants and Southwest Airlines, who was “granted intervenor status for the franchise application hearing process.”\(^{113}\) On May 10, 1991, the THRSA awarded the franchise to the Texas TGV consortium to “plan, construct, lease, operate, and maintain” a high-speed rail system in Texas.\(^{114}\) Texas TGV complied with the initial requirements under the franchise agreement; however, it failed to receive $170 million in equity financing agreements as part of the Equity Financing Commitment to fund development and permitting costs.\(^{115}\)

\(^{105}\) \textit{Id.}\(^{106}\) \textit{Id.}\(^\text{The report stated travel time between the central business districts of Houston and Dallas would be faster by rail than by air, accounting for the time taken to access airports and actually board the plane. Id.}\(^{107}\) \textit{Texas High-Speed Rail Authority: Agency History, TEX. STATE LIBRARY AND ARCHIVES COMM’N}, http://www.lib.utexas.edu/taro/tslac/20071/tsl-20071.html (last visited on Sept. 29, 2012) [hereinafter \textit{Agency History}].\(^{108}\) \textit{BURNS, supra note 4, at 13.}\(^{109}\) \textit{Id.}\(^{110}\) \textit{Agency History, supra note 107.}\(^{111}\) \textit{BURNS, supra note 4, at 16.}\(^{112}\) \textit{Agency History, supra note 107.}\(^{113}\) \textit{Id.}\(^\text{Southwest Airlines stood to lose a portion of its passengers should a high-speed rail system be built in the Texas Triangle. See id.}\(^{114}\) \textit{BURNS, supra note 4, at 20-21.}\(^\text{Texas TGV likely won the franchise partly because it proposed better service, but most likely because it claimed it could build the high-speed rail system \textit{without} public funds. Id. at 21.}\(^{115}\) \textit{See Agency History, supra note 107.}\)
As part of the environmental analysis required by federal law, representatives from the THSRA, Texas TGV, and additional consultants held “scoping meetings” to take comments and address concerns of the public. The majority of rural residents opposed the project, and turnout in rural areas often exceeded that of urban areas.

Two major issues began to surface as the performance review was being conducted in late 1992: the environmental impact statement was incredibly over budget, and the equity financing commitment was soon due. The THSRA board decided to grant an extension to Texas TGV to produce the required equity financing for the project. Despite initial hopes, the second attempt by Texas TGV to fulfill its equity financing commitment by December 11, 1993, failed when the company providing the counter-guarantee withdrew. After this, Texas TGV stopped its baseline environmental studies.

In response to these issues, the THSRA issued a letter to the Texas TGV consortium stating that it had defaulted under the agreement by failing to meet the equity financing commitment deadline. Then-Governor Ann Richards and fourteen legislators also urged the THSRA to terminate the franchise. At the federal level, Southwest Airlines, with the help of Boeing, effectively killed any chance for the Texas TGV consortium to receive federal subsidies. On April 27, 1994, the THSRA board began administrative proceedings to terminate the franchise agreement. Then, in the spring of 1995, the Texas Legislature officially abolished the THSRA and repealed the High-Speed Rail Act.

B. 2005 Assessment: The Texas Rail System Plan

In 2005, the Texas Legislature passed legislation whereby TxDOT assumed all powers and duties from the Texas Railroad Commission related to railroads in the state. TxDOT was also empowered to “finance, construct, maintain and operate freight or passenger rail” and administer federal funding.
for railroads in Texas.\textsuperscript{128} "The purpose of the Texas Rail System Plan (TRSP) is to identify current and proposed rail projects, determine infrastructure and capacity needs on the Texas rail system, and develop an awareness of the issues and processes by which to address rail infrastructure needs by transportation policy makers."\textsuperscript{129} This assessment was not conducted to outline future goals, but "to provide a baseline analysis of the current rail system in [Texas]."\textsuperscript{130}

The TRSP’s immediate focus is mainly on improvements to the freight rail systems in Texas.\textsuperscript{131} The logic behind this appears to be that “by enabling a greater magnitude of freight rail efficiencies, commuter rail system development and high-speed passenger rail system development will follow with a greater degree of support.”\textsuperscript{132}

Since 1932, thirty-nine percent of total rail track miles have been lost in the State of Texas.\textsuperscript{133} This represents a significant reduction in the transportation options of this state and consequently impacts area economies negatively, including many rural communities.\textsuperscript{134} The people of Texas use transportation as a way to reach jobs, services, and recreation, and Texas businesses use transportation as a means to integrate into the global economy.\textsuperscript{135} Increased trade opportunities, a strong economy, and larger population have led to increased traffic and congestion on roadways and additional safety concerns.\textsuperscript{136}

Passenger rail within the TRSP focuses on both intercity and commuter rail that provide additional choices for meeting people’s travel needs.\textsuperscript{137} The TRSP summary specifies that intercity travel within Texas is provided solely by Amtrak along three designated routes.\textsuperscript{138} In addition, as of 2005, the only regions with any existing metropolitan passenger rail services were Dallas–Fort Worth and Houston.\textsuperscript{139} Importantly, while these metropolitan services are relatively new, there is now demand for expansion and increased transit-oriented development in the areas they serve.\textsuperscript{140}

Because of increased traffic congestion along major intercity corridors in Texas, a market potentially exists for high-speed rail offering frequent

\textsuperscript{128} Id. at 7.
\textsuperscript{129} Id. at 2.
\textsuperscript{130} See id. This report was done in part to help not only legislators, but also planners and the public, understand the potential for rail systems to fit into a long-term statewide transportation scheme. Id.
\textsuperscript{131} See id. at 6.
\textsuperscript{132} See id. at 11.
\textsuperscript{133} Id. at 12.
\textsuperscript{134} Id.
\textsuperscript{135} Id. at 3. Supporting freight and passenger rail systems through policies and programs will benefit the economic vitality of Texas. Id. at 4.
\textsuperscript{136} Id. at 6.
\textsuperscript{137} Id. at 10.
\textsuperscript{138} Id.; see also supra Part IV (noting the current Amtrak routes serving Texas).
\textsuperscript{139} Plan Summary, supra note 127, at 14.
\textsuperscript{140} See id.
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departure and arrival times. Amtrak has traditionally focused on developing national rail routes, making it inadequate to meet demands for fast, intercity travel. Currently, passenger rail services are ineffective because “run-times between major cities in Texas are not competitive with either commercial air carriers or motor vehicles, and fare savings are not compelling when time considerations are taken into account.” This is at least partially due to increased freight rail operating along lines that are shared with passenger rail services. A key to increasing the speed at which intercity passenger rail systems can operate is separating the freight lines from the passenger rail lines along many rail corridors of the state. TRSP notes that upgrades are needed in addition to separate rail lines: improved tracks and control systems, potential “sealed corridors” with no crossings, and renovated stations. In conclusion, the TRSP suggests improvements are needed to enhance transportation efficiency and rail systems are an essential component of the Texas transportation system.

V. RECENT PASSENGER RAIL LEGISLATION

Federal and state governments are quickly realizing that by falling behind in cutting-edge technologies, the effects will result in consequences paid by the next generation. Charles M. Vest, President of the National Academy of Engineers, opined recently that “we have nothing remotely like fast, efficient, state of the art rail travel anywhere in the U.S.” Public commitment and leadership has become lethargic, but there are small signs of hope.

A. Federal Involvement

In 2008, the Passenger Rail Investment and Improvement Act (PRIIA) reintroduced the focus of strengthening the passenger rail network around the United States. This piece of legislation centered on “intercity passenger rail, . . . state-sponsored corridors throughout the Nation, and the development of

141. Id.
142. See id.
143. Id.
144. Id. Both traffic and tonnage have increased while total rail lines have decreased. Id.
145. See id.
146. Id. at 19.
147. Id. at 20.
149. Id.
150. See id.
high-speed rail corridors.” PRIIA specifically instructed states to establish a rail transportation authority that would implement polices and set plans involving both freight and passenger rail systems in accordance with United States Department of Transportation (USDOT) minimum standards. PRIIA regards Amtrak as vital to intercity rail systems and as an integral role in the nation’s transportation system and economy.

To help facilitate these goals, PRIIA created three assistance programs to provide federal funding for passenger rail systems. The first assistance program provides investments and grants from the USDOT for intercity rail services to state and public agencies. The second program allows for funding to create a high-speed rail corridor development program by individual states, groups of states, and even Amtrak. High-speed rail differs from other intercity rail services because it achieves operating speeds of at least 110 miles per hour. The final assistance program authorizes funding for high-speed rail projects that are necessary to reduce congestion or increase ridership of intercity rail.

Another goal of PRIIA is to enhance opportunities for involving the private sector in the operation and improvement of intercity rail. The most important program offered is to establish a public-private partnership for developing high-speed rail, specifically within any of the eleven designated high-speed rail corridors. In addition, PRIIA develops a pilot program allowing rail carriers that own lines over which Amtrak operates to petition for consideration as a passenger rail service provider for a period of five years. Knowing that this will adversely affect Amtrak, the Secretary of Transportation is tasked with developing financial incentives for the voluntary termination of Amtrak employees. With the help of PRIIA, the hope is to greatly expand rail services, especially in designated high-speed rail corridors, and foster more partnerships between public and private entities for rail’s future growth and development.

152. Id.
153. Id. at 3. The state plans must explain passenger rail objectives, analyze the impact of rail on transportation, economics, and the environment, and establish a long-term investment program for infrastructure. Id.
154. Id. at 2.
155. See id. at 4-5.
156. Id. at 4. This allows for federal funding to assist with the costs of facilities, infrastructure, and equipment for improving passenger rail transportation. Id.
157. Id. This assistance program includes the ten high-speed rail corridors already designated by the Secretary of Transportation. Id.
158. Id. at 5.
159. Id. The goal of this funding structure is reducing congestion and improving performance and reliability of trains, specifically for established rail systems. See id.
160. Id.
161. Id.
162. Id.
163. Id.
164. See id. at 1-5.
B. Direction from the Texas Legislature

In response to the federal directives presented in PRIIA, Texas passed Senate Bill 1382 in 2009 requiring TxDOT to coordinate the planning, construction, operation, and maintenance of a statewide passenger rail system.\textsuperscript{165} This bill also called for coordinated efforts between government and private entities and nonprofit corporations.\textsuperscript{166} Each year, TxDOT is tasked with preparing and updating a long-term plan for a statewide passenger rail network.\textsuperscript{167} Included in this annual update are existing and proposed rail systems, the status of rail systems under construction, any potential difficulties, ridership projections for proposed rail systems, and ridership figures for current rail systems.\textsuperscript{168} The overall goal is to assess the status of the current rail systems in Texas and to find ways to expand as rail becomes a more important part of Texas’s transportation infrastructure.\textsuperscript{169}

VI. THE NEW TEXAS RAIL PLAN

The newly released Texas Rail Plan (TRP) provides a critical assessment of Texas’s current transportation systems and describes how rail needs to play a more important role in the future of this state.\textsuperscript{170} This newest plan updates and expands on the Texas Rail System Plan (TRSP) published in 2005.\textsuperscript{171} In doing so, the TRP fulfills the mandate by both the federal and state government for Texas to analyze current rail infrastructure and plan for the future expansion and improvement of rail systems in the state.\textsuperscript{172}

A. Driving Forces of Rail Needs

The TRP acknowledges that concerns over the cost of energy, climate change, and manufacturing prompted the federal government to pass PRIIA in 2008.\textsuperscript{173} Along with this federal directive, TxDOT focuses on the importance of freight rail to the health of the state’s economy and connecting the large urban areas via passenger rail.\textsuperscript{174} Anticipated growth in both business and population, especially within the major metropolitan areas of the state, show the need for multimodal transportation systems, including high-speed and

\textsuperscript{165} Tex. S.B. 1382, 81st Leg., R.S. (2009).
\textsuperscript{166} Id.
\textsuperscript{167} Id.
\textsuperscript{168} Id.
\textsuperscript{169} See id.
\textsuperscript{171} See supra Part IV.B.
\textsuperscript{172} See Introduction, FINAL TEXAS RAIL PLAN, supra note 170, at 1-1.
\textsuperscript{173} Id.
\textsuperscript{174} Id. at 1-2.
intercity passenger rail. While driving is the main option for most people, the TRP highlights the fact that driving is an inefficient, slow, and unproductive form of transportation. The Dallas-to-Houston corridor, being less than 250 miles apart, is an ideal candidate for intercity or high-speed rail, as evidenced by the 800,000 passengers who flew between the two cities in 2006. In addition, the connectivity of the mega-region between the cities of Houston, San Antonio, and Dallas–Fort Worth increases mobility for workers, information, and goods, creating a competitive advantage in an increasing global economy.

Rail also offers many environmental benefits as compared to competing methods of transportation. From a freight rail standpoint, one gallon of diesel moves one ton of freight an average of 480 miles. This makes rail transport significantly more efficient than trucks, and increased fuel efficiency and decreased emissions among trains will likely increase this disparity.

As part of developing a national rail plan under PRIIA, the federal government recognizes that rail travel has become increasingly safer, with fewer accidents despite increased train miles. Passengers who use rail are twenty-one percent more fuel efficient than if using cars and seventeen percent more fuel efficient than if using short-haul air travel. In addition, Environmental Protection Agency (EPA) standards for carbon monoxide in truck emissions are ten times those of locomotives. As part of the Texas Transportation Commission’s (TTC) strategic plan for 2011–2015, being developed in conjunction with TRP, TTC chair Deirdre Delisi stated, Rail is going to be an important part of the solution. For many, many years, really since the creation of the Texas Department of Transportation, roads were seen as the only solution and we’re learning very quickly that . . . we need to be thinking more of a multimodal approach. We’re behind in Texas, relative to other states that have more of a robust rail infrastructure.

175. See id. at 1-2 to -4. Outside of driving, few competitive options for travel exist between large metropolitan areas in Texas. Id. at 1-4.
176. Id. at 1-4 to -5.
177. Id. at 1-7 (noting that projected growth, the region’s interconnectivity, and increased interest in rail transportation show the need for a rail option in addition to auto and air travel).
178. Id. at 1-9 to -10.
179. Id. at 1-10 (showing that rail accounted for less than three percent of United States transportation emissions in 2006).
180. Id. at 1-12.
181. See id.
182. Id. at 1-18. Nationally, rail accidents have decreased forty percent from 2000 to 2009, and fallen thirty percent during that same time in Texas. Id.
183. Id. (measuring BTU’s per mile per person).
184. Id. Diesel truck engines can emit up to 15.5 grams per brake horsepower hour of carbon monoxide, while locomotives can emit only up to 1.5 grams. Id.
185. Id. at 1-23 (alteration original).
The TRP, in conjunction with the Statewide Long-Range Transportation Plan, promotes passenger rail in its plans to increase connectivity among forms of transportation and communities.\textsuperscript{186}

\textbf{B. Passenger Rail}

The TRP focuses on high-speed, intercity, and commuter rail services.\textsuperscript{187} For this purpose, high-speed rail is defined as rail operating at speeds of 110 miles per hour with limited or no stops between cities, while intercity rail serves multiple cities over long distances at slower speeds with few stops.\textsuperscript{188} Commuter rail, on the other hand, typically serves workers commuting within an urban region.\textsuperscript{189}

High-speed rail, as an alternative to driving or flying, is needed in Texas based on population, travel trends, and the dependence on economic connectivity between regions.\textsuperscript{190} As an additional transportation option, “[h]igher speed passenger trains that run frequently could meet much of the demand for travel between urban regions within a short airline distance.”\textsuperscript{191} Amtrak itself supports findings that demand exists for high-speed rail in Texas.\textsuperscript{192} The speed the trains travel, the systems they use to operate, and the amenities they offer differentiate high-speed rail from services offered by Amtrak or commuter rail.\textsuperscript{193} To create an effective system, however, significant improvements to existing facilities or the installation of completely new facilities is required for high-speed rail in Texas.\textsuperscript{194} It must be noted as well that all proposals since 1991 serving routes between the Houston, San Antonio, and Dallas–Fort Worth regions indicate that operating revenue would exceed operating expenses.\textsuperscript{195}

\textit{1. High-Speed Rail Corridors}

The Federal Railroad Administration (FRA) has designated two high-speed rail corridors within Texas: the South Central and the Gulf Coast.\textsuperscript{196} The

\begin{flushleft}
\textsuperscript{186} See \textit{id.} at 1-25. \\
\textsuperscript{188} Id. \\
\textsuperscript{189} Id. \\
\textsuperscript{190} Id. at 4-3. Previous attempts at developing high-speed rail failed in both the 1980s and 1990s. See \textit{id.} The need and reasoning behind those attempts are still very much present. \textit{Id.} \\
\textsuperscript{191} Id. A developed and efficient high-speed rail line likely reduces the number of short-haul air travelers, especially for Southwest Airlines. See \textit{id.} \\
\textsuperscript{192} Id. at 4-4. \\
\textsuperscript{193} Id. at 4-3. \\
\textsuperscript{194} Id. \\
\textsuperscript{195} Id. at 4-4. \\
\textsuperscript{196} Id. at 4-6.
\end{flushleft}
South Central corridor runs from north Texas through Dallas–Fort Worth down to San Antonio, while the Gulf Coast corridor extends from Houston east to the Louisiana border. These corridors connect mega-regions of Texas and allow the state to petition the federal government for funding to make improvements along existing lines within the corridors. “By utilizing existing rail corridors and infrastructure, the ‘high or higher speed’ rail concept offers cost-effective transportation that has relatively low environmental impacts.”

2. **Intercity Amtrak Services**

For intercity rail travel within Texas, Amtrak is the sole provider of passenger rail services. Most of the state’s major urban areas are served but not all are directly connected, leading to extended travel times by rail. Texas formerly maintained an extensive passenger rail network that had greatly diminished since the 1930s.

The Heartland Flyer allows passengers to travel by rail from Oklahoma City to Fort Worth with once-daily service in each direction. This Amtrak service uses BNSF Railway Company tracks along its entire journey. It takes four hours and fifteen minutes to complete the journey, forty-five minutes slower than the same trip made by vehicle. “As is the case with all of the Texas Amtrak routes, the host railroad, in this case, BNSF, is primarily responsible for the delays (91.5% of the total minutes from 2000-2009) of the Heartland Flyer.” The most common delay is interference from BNSF freight trains operating along the same line of track. As of 2009, over 69,000 riders annually used the Heartland Flyer, compared to roughly 228,000 air travelers between the two cities in 2006. In 2009, Amtrak reported revenue of $1.75 million while total costs came in at $5.3 million. After accounting for subsidies from Texas and Oklahoma, the total loss came in at...
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$499,000.\textsuperscript{210} Notably in 2008, however, the Heartland Flyer turned a profit of $100,000.\textsuperscript{211}

Another Amtrak service in Texas, the Texas Eagle, provides services between Chicago and San Antonio, linking up with the Sunset Limited in San Antonio before continuing onto Los Angeles under that service’s name.\textsuperscript{212} Along the way, the Texas Eagle makes stops in Texarkana, Dallas, Fort Worth, Austin, and San Antonio.\textsuperscript{213} The train operates on Union Pacific Railway track except where BNSF Railway Company owns the track between Fort Worth and Temple.\textsuperscript{214} Despite concerns of the discontinuation of this service, ridership numbers have steadily climbed since 1998.\textsuperscript{215} On-time performance has continued to fluctuate as the highest sources of delays continue to come from the host railroad that operates freight along the tracks.\textsuperscript{216} The Texas Eagle operated at a $21.5 million loss in 2009, as operating costs of $42.8 million outpaced total revenue of $21.3 million.\textsuperscript{217} During 2008, Amtrak lost $25.3 million on this route.\textsuperscript{218}

The Sunset Limited, the third Amtrak service running through Texas, operates between New Orleans and Los Angeles, making stops in Texas cities such as Beaumont, Houston, San Antonio, and El Paso.\textsuperscript{219} This service runs on 800 miles of Union Pacific Railway track across Texas and averages speeds of less than forty miles per hour.\textsuperscript{220} This means that to cover the Texas portion, the Sunset Limited takes over twenty-one hours to make the journey.\textsuperscript{221} Ridership numbers had generally declined since 1998, but since 2006, those numbers have steadily grown.\textsuperscript{222} On-time performance was generally low since 2001; however, due to decreased delays in 2009 by the host railroad, Union Pacific, the trains were on schedule almost eighty percent of the time.\textsuperscript{223} From 2000 to 2009, over eighty percent of the delays were caused by the host railroad, largely because freight services were operating on the same tracks as passenger rail.\textsuperscript{224} In 2009, revenue from this service totaled $9.8 million while

\textsuperscript{210} Id.
\textsuperscript{211} Id.
\textsuperscript{212} Id. at 4-17 to -18.
\textsuperscript{213} Id.
\textsuperscript{214} Id. at 4-17. In all, this service operates on 404.1 miles of Union Pacific track and 126.4 miles of BNSF track. Id.
\textsuperscript{215} Id. at 4-20.
\textsuperscript{216} See id. at 4-25. This fluctuation suggests separate lines for passenger rail service would greatly reduce delays. See id.; see also Plan Summary, supra note 127, at 14 (noting increased speeds are achieved by separating freight and passenger rail lines).
\textsuperscript{217} Passenger Rail System, supra note 187, at 4-25.
\textsuperscript{218} Id.
\textsuperscript{219} Id. at 4-26.
\textsuperscript{220} Id. at 4-26 to -27.
\textsuperscript{221} Id. at 4-27. The same route in a vehicle or aircraft takes significantly less time to cross. See id.
\textsuperscript{222} Id. at 4-28 to -29.
\textsuperscript{223} Id. at 4-29 to -30.
\textsuperscript{224} Id. at 4-32.
total costs came in at $36.8 million, leading to a $27 million overall loss.\footnote{225} By comparison, 2008 saw a loss of $29.2 million.\footnote{226}

3. Federal Financing

From the funding standpoint, under PRIIA, the federal government authorized $3 billion in operating funding and $5.3 billion in capital funding to Amtrak.\footnote{227} In addition, $1.9 billion was allocated to fund capital grant programs for states managed by the FRA.\footnote{228} Under PRIIA, states that want to maintain Amtrak service for distances less than 750 miles must fully subsidize the routes, while routes over 750 miles will continue to be fully funded by Amtrak.\footnote{229} Any new services desired from Amtrak will likely need funding solely from state and local entities.\footnote{230} This essentially means the challenge of developing and expanding routes, at least those serviced by Amtrak, are retained by the states themselves.\footnote{231} Texas has received over $2.6 million from Amtrak, of which over $1.2 million went to station improvements in Beaumont and the remaining funds towards improvements to comply with the Americans with Disabilities Act.\footnote{232}

4. Ridership and Expanded Services

Amtrak ridership numbers have rebounded considerably after a severe decline in the 1990s as a result of reduced services in an attempt to improve financial performance.\footnote{233} Returns to daily service, along with the introduction of the Heartland Flyer service and expanded services on the Texas Eagle, helped to facilitate an upward trend in ridership figures.\footnote{234} The increased number of riders has spurred Amtrak to consider daily service on the Sunset Limited and additional improvements along that route to increase speeds and cut down on travel time.\footnote{235} Additional considerations involve rerouting the Sunset Limited from Houston to Dallas and continuing out the Interstate 20 corridor, with the ability to capture mid-sized west Texas markets before reaching El Paso.\footnote{236} Another potential benefit for Amtrak involves connecting the major regions of Houston and Dallas–Fort Worth, a route that has lacked

\footnotesize{225. \textit{Id.} at 4-34.  
226. \textit{Id.}  
227. \textit{Id.}  This funding does not include any money devoted to service debts of Amtrak through 2013. \textit{Id.}  
228. \textit{Id.}  
229. \textit{Id.}  
230. \textit{Id.}  
231. \textit{See id.}  
234. \textit{Id.}  
235. \textit{Id.} at 4-42. With increased speeds and services on the Sunset Limited, the potential to develop additional services between Houston and San Antonio, Houston and New Orleans, or both is possible. \textit{Id.}  
236. \textit{Id.} at 4-43.}
passenger rail service for a considerable amount of time. In addition, new services are being explored to bring expanded service to new areas: Dallas–Fort Worth to Meridian, Mississippi; Fort Worth to Denver, Colorado; San Antonio to Laredo, continuing into Monterrey, Mexico; and San Antonio to Austin.

5. Planning and Prioritizing

To effectively plan and prioritize high-speed and intercity passenger rail within Texas, the TTI used fifteen criteria to analyze pair-city corridors and prioritize rail development. The results showed that the Dallas–Fort Worth to Houston corridor and the Dallas–Fort Worth to San Antonio corridor were best. Interestingly, the Dallas–Fort Worth to Houston route is not designated by the federal government as a high-speed rail corridor, while Dallas–Fort Worth to San Antonio is part of the South Central high-speed rail corridor. Designation as a high-speed rail corridor allows the state to petition the federal government for additional funding to make improvements along existing lines within the corridor. The 1985 report by TTI concluded the use of the right-of-way along interstate highways within Texas as a location for high-speed rail was feasible. Both Florida’s high-speed rail system between Orlando and Tampa and the DesertXpress, a high-speed rail line between Los Angeles and Las Vegas, will utilize the existing right-of-way of the interstates currently linking the two cities. Using existing right-of-way helps avoid additional costs and delays in acquiring property needed for the rail lines and is a viable option for future passenger rail development in Texas.

VII. A LOOK AT HIGH-SPEED RAIL SYSTEMS IN DEVELOPMENT

America’s highways will continue to remain an integral part of the nation’s transportation system for many years to come. The economic
growth of this country, however, can no longer rely exclusively on roads in the long term; each day, other countries continue to pass us by as they build faster trains and expand high-speed rail services. The benefits are clear: integrate people and economies of large metropolitan communities, reduce congestion at our airports and on our roads, and decrease our oil reliance and carbon emissions.

A. Florida’s First High-Speed Rail Line

Florida has a combination of attributes that make it ideal for high-speed rail projects including flat terrain, high growth rates, and distances between its major cities. As part of the federal government’s commitment to high-speed rail services, Congress appropriated over $13.5 billion to help states fund these projects. Florida received almost $2.4 billion in federal stimulus funds for its first high-speed rail line which links the cities of Tampa and Orlando. In addition, the state contributed $280 million towards the project. Once completed, at a cost of $2.6 billion, the Florida Department of Transportation (FDOT) projects that operating costs would have been completely covered by operating revenues.

The construction of Florida’s first high-speed rail line was set to occur in two phases. Phase one, the Early Works Project, involved replacing bridges and realigning Interstate 4 within its right-of-way to make space for the rail lines. The second phase involved bidding out the main rail project to private firms to build, operate, and maintain the high-speed rail, which was scheduled to open in 2015. FDOT also invested $2 million dollars to start evaluating
costs and route proposals for an Orlando-to-Miami high-speed rail line and received an additional $8 million dollars in federal funding for this initiative.258

Florida planned to select one of the high-speed rail technologies already in operation on more than 7,800 miles of service in over twelve countries.259 Along this Orlando–to-Tampa line, five stations were planned, each with their own parking and rental car facilities.260 Strong connectivity to existing and proposed road, bus, and transit systems was another key feature of this high-speed rail project.261 This was extremely important for the mobility of the projected 2.4 million high-speed rail passengers in the first year of operation.262

Additional benefits come from the jobs created by the construction and operation of this high-speed rail line.263 Projections showed 10,000 workers employed during the peak construction period of 2012-2014, with 600 people employed directly and 500 indirectly once operations begin.264 According to FDOT, high-speed rail “has the unique and integrating capacity to create a functional super-regional economy because of its ability to create a fast, affordable, safe and reliable transportation option connecting the two regions and their major assets.”265 This new super region connects the nineteenth and twentieth largest markets in the United States, according to population and gross domestic product.266 A study by the University of Pennsylvania Urban Design Studio suggests:

Counts can translate their specific assets into regional assets. Each county can leverage its talent, ideas, amenities, products and service by connecting these elements to similar ones held by Super Regional Partners. [A]menities across the region, rather than providing isolated benefits, can become part of a thriving system that coalesces into a national or global force.267

The benefits of high-speed rail are also seen in the growth management of the surrounding areas.268 The University of Pennsylvania study used past development strategies to anticipate population growth and determined approximately 1.8 million acres of land is needed to accommodate such

258. Id.
260. Id.
261. Id.
262. See id. These ridership projections were based on a one-way ticket of fifteen to thirty dollars, which creates revenue of approximately $49 million for the first year. Id.
264. Id.
265. Id.
266. Id.
267. Id.
268. See id.
Traffic networks, even when accounting for additional development, become overwhelmed, and the impacts to regional mobility are negative. The alternative involved development around high-speed rail and the adjacent transit systems that are connected to it. The projections are quite significant: approximately one million acres can be saved from development and Florida could avoid spending $270 billion over the next forty years on roadway construction and expansion.

Florida recognizes that reducing pollution and decreasing energy costs provide substantial support for high-speed rail and transit-oriented development. Compared to a plane trip, high-speed rail produces barely one-quarter the carbon dioxide per passenger and emits less per passenger than a similar trip in a car. “High speed rail travel is the single most energy efficient transportation mode on land, in the air or on water for moving people . . . . HSR takes less energy to move a person one mile than any other travel mode.” America’s transportation sector accounts for two-thirds of the oil use in this country. High-speed rail helps reduce this country’s dependence on foreign oil because it runs on electricity, which is capable of production from various domestic sources. According to FDOT, reliance on domestic energy sources, less pollution, and increased energy efficiency make high-speed rail an ideal form of transportation.

B. Britain Playing Catch-Up

In Britain, high-speed rail typically describes railways that operate at up to 200 miles per hour and transport mainly passengers, not freight. As of today, Britain has one high-speed rail line that links London to mainland Europe via the Channel Tunnel. Britain’s new plans call for a high-speed rail line between London and Birmingham, from which two lines will head

269. Id. Approximately 1.5 million acres is currently used for agriculture and the other 300,000 has significant environmental value. Id.
270. Id.
271. Id.
272. Id. Public resources will still need to be spent on building and maintaining public transit systems. Id.
273. See id.
274. Id. The potential reductions in pollution only increase as high-speed rail produces transit-oriented development and systems that take cars off the road. Id.
275. Id. FDOT states “[h]igh speed rail is four times more efficient than automobile travel, and eight times more efficient than plane travel.” Id.
276. Id.
277. Id.
278. See id.
280. Id.
further north, one up the East Coast and one up the West Coast.\textsuperscript{281} The European continent already has over 3,500 miles of high-speed rail lines and countries like Germany, Spain, Italy, France, Belgium, and the Netherlands are expanding high-speed rail services.\textsuperscript{282} Britain is in the midst of a massive expansion of its high-speed rail services, recognizing the importance to its economy and environment.\textsuperscript{283}

The cities of Britain drive its economic prosperity, and continued growth “depends upon a highly mobile workforce, access to large potential business markets and the interconnectivity that allows businesses to share ideas and develop new products.”\textsuperscript{284} By decreasing travel times through high-speed rail, business and leisure trips become more convenient, and economic centers are closer than ever before.\textsuperscript{285} High-speed rail can help expand regeneration initiatives as well, as evidenced by the examples from Turin, Italy; Cordoba, Spain; and Cologne, Germany.\textsuperscript{286} Because of the need for separate tracks, high-speed rail reduces congestion on the other rail networks, thereby increasing speeds and efficiency on those systems as well.\textsuperscript{287}

Reducing emissions of pollutants is another key goal of the British government that is furthered by development of high-speed rail.\textsuperscript{288} The number of rail users in Britain continues to grow, increasing congestion and delays on existing services, while traffic congestion threatens the mobility of drivers on overburdened roadways.\textsuperscript{289} To ensure its full potential, Britain must support “transport infrastructure that not only meets the needs of business and leisure [travelers], but is also sustainable.”\textsuperscript{290} Once connected by high-speed rail, all major British cities are less than three hours apart, leading to a huge switch from short-haul flights to rail.\textsuperscript{291} According to High Speed Rail UK, “experience has shown that when high-speed links mean a journey can be made in less than three hours, railways capture 50 to 60 per cent of the market from airlines—a figure that grows to 90 per cent if the journey takes less than two hours.”\textsuperscript{292} The environmental costs are significant given the fact that high-
speed rail emits thirty grams of carbon dioxide per passenger kilometer, while short-haul flights emit 120.293 Additional pollution reductions are achieved as Britain reduces the carbon output of its electric supply because the trains run on electricity.294

The British government estimates the total cost of the project at thirty billion pounds, with the ability to produce 10,000 jobs and achieve a two-pound benefit for every one-pound spent.295 This is one of the few political issues that is supported by the main opposing parties in Britain as an economic driver toward sustainability.296 According to Network Rail chief executive Iain Coucher, “[i]t is the low-carbon, sustainable transport of the future.”297

VIII. FUTURE IMPLICATIONS FOR TEXAS AND SOLUTIONS

Trying to solve a problem by aggravating the conditions that created it in the first place may in the short term provide temporary relief but, in the long term, proves misguided.298 Governments continue to waste resources doing just that, creating additional capacity on highways, which temporarily makes driving more pleasant, until additional vehicles strain the system once again.299 The perceived dependence on cars, in Texas and elsewhere, stands between effective, sustainable change and a coming energy and economic nightmare.300

For Texas, this means proactively planning for future needs rather than suddenly reacting once the crisis is already in our midst.301 For too long, reliance on cars and trucks has kept the state from developing efficient multimodal systems of transportation.302 Part of this problem is because of a determination by the American Road Builders Association to lay out cities in low-density patterns, often beyond the reach of public transit.303 The other key to this equation is reducing the number of drivers and air travelers for middle- and long-distance travel within Texas.304

As Florida initially demonstrated, an efficient high-speed rail system can make the most sense.305 A reduction in pollution and energy costs was a driving force behind their high-speed rail development because by running on electricity, the power is generated domestically and from increasingly

293. Id.
294. Id.
295. BBC NEWS, supra note 281.
296. See id.
297. Id. Having the ability to show up and quickly board a train remains a key attraction. Id.
298. OWEN, supra note 46, at 142.
299. See id.
300. See id. at 114.
301. See BURNS, supra note 4, at 9 (stating that the THSRA attempted to help solve this impending crisis before crippling the state and its economy).
302. See id.
303. See Wilens, supra note 70.
304. See SOCIAL DETERMINANTS OF HEALTH, supra note 12, at 141.
305. See supra Part VII.A.
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renewable sources. 306 By limiting the main transportation options of Texans to driving and flying, both of which are heavily dependent on oil, economic disaster is always one sharp spike in oil prices away. 307 Continuing to subsidize automobiles and trucks not only violates free-market principles but also provides a disincentive to move towards more sustainable transportation options that can help avoid an all out crisis. 308 Without a reorientation of transportation policies, the Texas government, like many others already under financial stress, will continue wasting valuable taxpayer resources on the never-ending problem of road congestion. 309

To effectively turn the corner in this daunting challenge, strong commitment from Texas political leaders, like that exhibited in the early days of the THSRA, is absolutely necessary. 310 Rather than succumbing to the efforts of the road and air lobby, a shift towards a more sustainable transportation alternative, high-speed rail, is required to soften the economic consequences of high oil prices. Once this shift occurs, it is equally important to have concrete high-speed rail plans in place to provide the federal government when opportunities to gain significant federal funding present themselves. 311 With the right plans in place, Florida initially received almost ninety percent of the $2.6 billion total price tag for its first high-speed rail line from federal stimulus funds because they were ahead of the curve. 312

A significant push by the private sector, like in Britain, can help overcome the daunting odds stacked in favor of automobiles. 313 Texas can achieve greater economic prosperity and manage continued growth with the helpful addition of high-speed rail providing access and connectivity for people, businesses, and markets across the state and beyond. 314 Keeping a watchful eye on airline companies and the “road lobby” who attempt to undermine access to the market by high-speed rail is crucial. 315

In regard to rail, the benefit of separate freight and passenger rail lines is monumental in preventing congestion and achieving maximum speed and on-time performance. 316 This could significantly improve services for Amtrak trains and expand the number of potential users for their intercity services. 317

306. See Florida Jobs, supra notes 263.
307. See OWEN, supra note 46, at 49.
308. See DUANY, PLATER-ZYBERK & SPECK, supra note 7, at 96.
309. See BURNS, supra note 4, at 9.
310. See Agency History, supra note 107.
311. See Florida Fast Facts, supra note 252.
312. See id.
314. See Why Is HSR So Important, supra note 283.
315. See BURNS, supra note 4, at 34; see Wilens, supra note 70.
316. See Plan Summary, supra note 127, at 14.
317. See supra Part VI.B.2.
High-speed rail services require completely separate tracks, which relieve congestion on other rail networks, thereby increasing their speeds as well.\textsuperscript{318} The use of existing right-of-ways presents a feasible location to construct new, segregated tracks.\textsuperscript{319} Continuing to build and expand highways swallows up far more land than the construction of any rail line.\textsuperscript{320}

In addition, a key to making high-speed rail more successful is connecting those networks with urban transit systems, so riders can easily transition from one service to another and reach their destination without requiring a car.\textsuperscript{321} Florida understood this, but because of past development strategies, it was also planning to install rental car facilities at their high-speed rail stops to facilitate more rail users.\textsuperscript{322} As cities and towns move towards denser development to support a more efficient and sustainable lifestyle, this will only enhance the appeal of public transit systems and high-speed rail connectivity.\textsuperscript{323}

The development of high-speed rail in Texas presents opportunities for private companies to construct rail lines and charge riders to use their services, much like TxDOT’s preferred strategy for toll roads.\textsuperscript{324} High-speed rail fits nicely within TxDOT’s goals of offering citizens more choices, charging only those who want to use the services, reducing emissions, and saving time by bypassing congestion.\textsuperscript{325} Channeling the money that is currently spent on building and expanding highways to high-speed rail options would provide a huge jumpstart for developing the rail system.\textsuperscript{326} Similar to Britain, high-speed rail has the ability to bring together public, private, and environmental interests that recognize efficient and sustainable transportation systems are the wave of the future.\textsuperscript{327}

IX. CONCLUSION

High-speed rail provides an alternative to the oil-dependent forms of transportation that Texas relies on so heavily to move people between its cities and regions.\textsuperscript{328} Given projected population increases and concerns over the rising cost of oil, developing a high-speed rail system should be part of an overall reorganization of Texas’s transportation system.\textsuperscript{329} This will help

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\textsuperscript{318} See Why Is HSR So Important, supra note 283.
\textsuperscript{319} See BURNS, supra note 4, at 13.
\textsuperscript{320} See Florida Jobs, supra note 263.
\textsuperscript{321} See Florida Fast Facts, supra note 252.
\textsuperscript{322} Id.
\textsuperscript{323} See OWEN, supra note 46, at 12.
\textsuperscript{324} See supra Part III.B.
\textsuperscript{325} See TEXAS TOLLWAYS, supra note 65.
\textsuperscript{326} See DUANY, PLATER-ZYBERK & SPECK, supra note 7, at 94-97.
\textsuperscript{327} See supra Part VII.B.
\textsuperscript{328} See Final Texas Rail Plan, supra note 170, at 1-4 to -5.
\textsuperscript{329} See id. at 1-2 to -4.
soften the economic blow of increased oil costs while providing Texans a safe, efficient, and sustainable travel option.\footnote{330} Florida and Britain make good cases for why they see high-speed rail as such an important investment for the future of their cities and people.\footnote{331} High-speed rail can connect regions of the state allowing additional mobility options for workers, opportunities for new markets, and increased connectivity.\footnote{332} In addition, it can promote transit-oriented development, which reduces pollution and decreases energy costs.\footnote{333} The distances between cities, especially within the mega-region known as the Texas Triangle, and relatively flat terrain make Texas well positioned to develop a high-speed rail system.\footnote{334} Texas can lead the nation in connecting its cities through high-speed rail, but this goal will require a concerted effort on the part of the state’s leadership and a vision to see high-speed rail through this time around.\footnote{335}