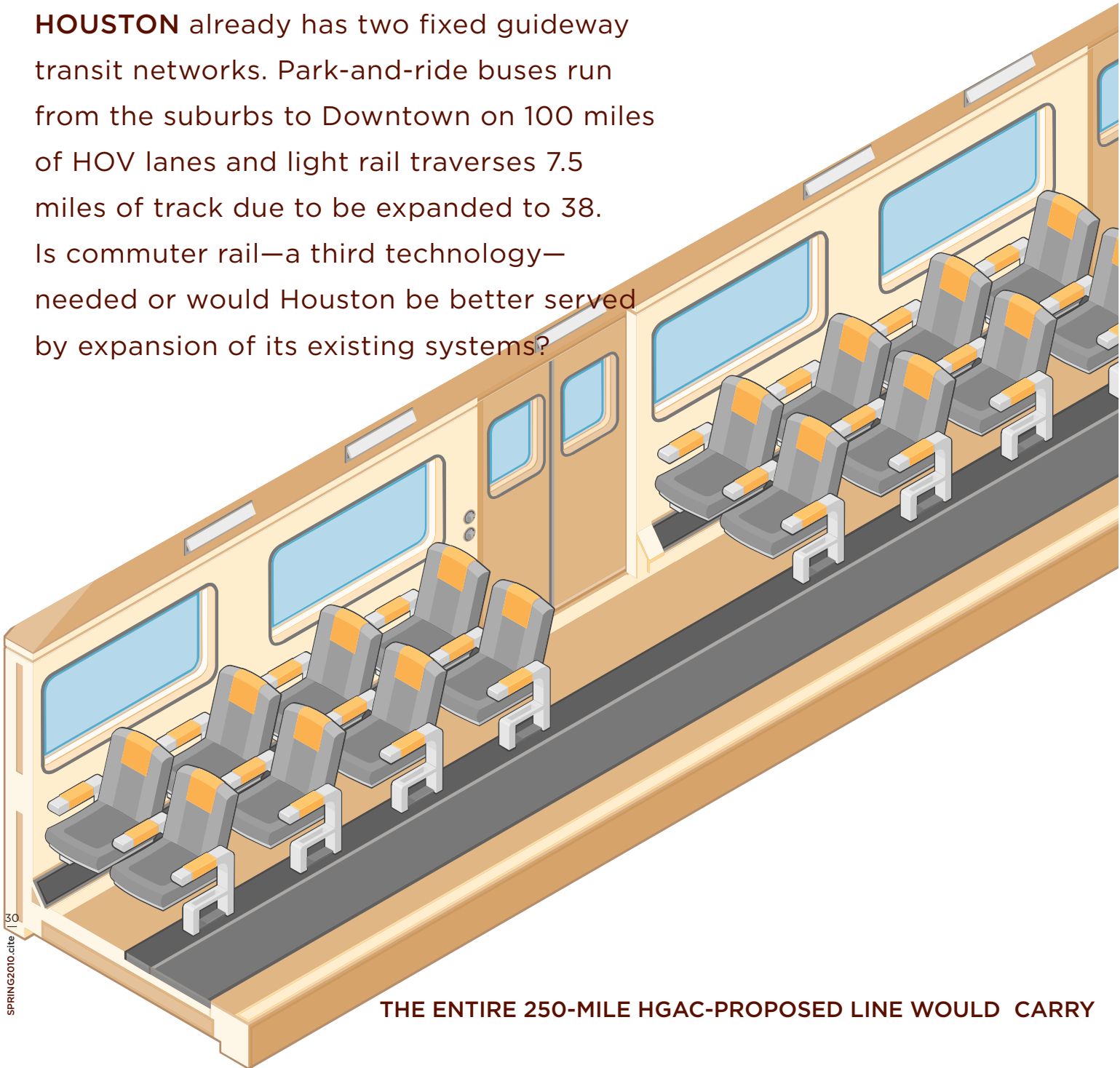


ARE WE SETTING UP COMMUTER RAIL TO FAIL?

by Christof Spieler

HOUSTON already has two fixed guideway transit networks. Park-and-ride buses run from the suburbs to Downtown on 100 miles of HOV lanes and light rail traverses 7.5 miles of track due to be expanded to 38. Is commuter rail—a third technology—needed or would Houston be better served by expansion of its existing systems?



THE ENTIRE 250-MILE HGAC-PROPOSED LINE WOULD CARRY



RAIL HAS TRADITIONALLY STIRRED

controversy in Houston. But one thing is clear. There's a broad political consensus in favor of commuter rail. The clarity ends there. A dozen different corridors are under consideration; out of several possible central station locations, none connects easily to any of those corridors; at least three different agencies are vying to design and operate the system, but nobody knows how to fund it; and it's not clear how commuter rail will connect to the existing transit system.

Perhaps the most important question, though, is the simplest: what exactly do we mean by "commuter rail"? The answer to that question will play a large role in determining the shape of Houston's future.

The technical definition of commuter rail is "a mode of mass transit that operates on the national railroad network." It differs from Amtrak in that it serves trips within a metro area, not between cities. It differs from light rail (like Houston's Main Street line) and heavy rail (like the New York subway or Washington, D.C.'s Metro) because it can share tracks with freight trains.

The 21 U.S. systems that fit the definition of commuter rail offer dramatically different levels of service. Some offer over 100 trains a day; others, only six. Some stop directly in the middle of huge central business districts; others drop riders 30 minutes and two transfers away from downtown. Some suburban stations are in the middle of walkable neighborhoods; others are just parking lots off a highway. Those differences are reflected in ridership: the busiest system, the Long Island Railroad, accommodates 331,600 riders a day, while Nashville's Music City Star carries only 800.

So the question is not whether Houston needs commuter rail. The question is what places need to be connected, what level of service needs to be

provided between those places, and how commuter rail will connect to other transit.

Unfortunately, a lot of the discussion of commuter rail shares a widespread misconception of Houston as a city where most people work Downtown and live in the suburbs, and where most traffic is commuter traffic. In reality Houston is a multicentric city. The Texas Medical Center, Greenway Plaza, Uptown, Westchase, Energy Corridor, and Greenspoint each has as many jobs as other cities' downtowns. (This is not a new thought—"Edge Cities" have been discussed since the 1980s—but it does not seem to have affected a lot of transit planning.) The densest concentration of Houston's resident population is within and just west of the 610 Loop; even with current low gas prices and sprawling development patterns, the area inside the Loop is projected to add nearly twice as many people by 2035 as any other comparably sized area in the region. Only about a quarter of the trips on Houston's freeways are work trips, and many work trips occur outside of rush hour.

Serving a multicentric city requires frequent two-way service that connects not just to Downtown but to other activity centers as well. Unfortunately, that's not what has been proposed. In 2008 the Houston-Galveston Area Council (HGAC) completed a study for a five-line regional system proposing rush hour service every 20 minutes and a handful of midday trains.

The initial set of alternatives, explored in a study currently being conducted by the City of Galveston, proposes a Galveston-to-Houston line with trains that would operate only three hours in the morning and three hours in the afternoon, with no midday or weekend service. Both proposals would rely on transfers to get riders Downtown from a station a mile away. Reaching other employment centers would be even less convenient: one proposed central station is three miles from Downtown, a 20-minute light rail trip to the Medical Center or Greenway Plaza, and essentially inaccessible to the University of Houston. Neither study considered alternate Downtown terminals or a better integration with the light rail system for connections to places like UH.

An infrequently available, rush-hour only, Downtown-focused system will not be very effective. The entire 250-mile HGAC-proposed line would carry only 36,000 people a day—fewer than the 7.5-mile Main Street light rail line. And it would cost a lot of money—\$3 billion in construction costs (compared to a tenth of that spent on the Main Street line) and

ONLY 36,000 PEOPLE A DAY—FEWER THAN THE 7.5-MILE MAIN STREET LIGHT RAIL LINE.

\$35 million a year, which comes to nearly \$10 a trip in operating costs (compared to \$1.30 on Main Street line), of which maybe 60 percent would be covered by fares.

Those kinds of numbers raise equity issues. According to HGAC's 2007 Transit Onboard Survey, Houston's local, non-commuter bus riders are 75 percent minority, and 54 percent have household incomes under \$30,000. Their service is subsidized by about \$1.95 a trip. Light rail riders are subsidized by less than \$1 a trip. (Across the United States, transit serving denser urban areas carries more people and is more cost-effective than transit serving low-density suburban areas.) Given that current commuter bus riders are 35 percent minority and only 7 percent have incomes under \$30,000, commuter rail riders would be whiter and wealthier than the average Houstonian. The \$4 subsidy would unfairly distribute tax dollars.

How can Houston build a system that will be

carrying more people. Other technologies—single-car diesel trains, express buses—could offer similar advantages: more frequent service, fewer transfers, faster acceleration, fewer emissions, and the ability to run outside existing railroad corridors to serve other destinations. But the HGAC and Galveston studies considered only locomotive-hauled commuter rail.

Houston, in fact, already has very successful suburban commuter transit. METRO, Trek, and Woodlands Express buses leave suburban park-and-ride lots every morning, running as often as every three minutes, and provide nonstop trips on free-flowing high-occupancy vehicle (HOV) lanes right onto downtown streets, a short walk away from 140,000 jobs. A 2009 Central Houston study found that over half of Downtown employees who live 20 to 70 miles from Downtown use the HOV lane buses. These 33,000 daily transit trips are in addition to 179,000 trips in local buses, vanpools, and carpools that also use the HOV lanes. If those vehicles ran on tracks rather than rubber tires, this would rank among the top ten U.S. commuter rail systems. The current service is more frequent, more convenient, and faster than most commuter rail systems and equally reliable. Therefore, adding commuter rail will only make sense if it serves other sorts of trips. Those could be trips to employment centers other than Downtown—now poorly served by the HOV buses, which have to use congested general traffic lanes to get there—or trips to outlying centers like Galveston or College Station.

A good political as well as financial case can be made for improving transit. Hundreds of thousands of commuters must contend with freeway traffic while paying \$3 a gallon for gas. Rice University's Houston Area Survey finds that 79 percent of Houstonians think better transit is important to Houston's further success, and the majority thinks rail is part of the solution. Meanwhile, as the state's highway fund runs out of money, freeway expansion is getting more expensive and more politically difficult. The expansion of the Katy Freeway cost \$2.8 billion, more than \$1.8 billion over the original estimate, and displaced hundreds of businesses as well as entire neighborhood streets. (It also destroyed one of Houston's best potential suburban transit corridors.) Highways do not come close to paying for themselves. According to a 2009 study by the Pew Charitable Trust, only 50 percent of the federal highway trust fund and almost no local road spending comes from gas taxes; the rest comes from the taxpayers as a whole. The Texas Department of Transportation says that gas taxes cover considerably less than half the cost of Texas highways, and that analysis does not consider external costs like pollution and lost property tax revenues.

But not all transit is good transit. An ineffective, expensive commuter rail system will not improve the region. Rather than rush ahead with a system based on preconceived, often faulty assumptions and driven by political urgency, we need to engage in a discussion about what we want to accomplish and how best to do that. Unfortunately, that discussion is harder to fit into a soundbite than "We need commuter rail." And while good transit with a high level of service and efficient connectivity will carry more riders, it is often more expensive and takes longer to implement than a more basic service. A few trains a day running from Hempstead to the parking lot of Northwest Mall from which shuttle buses (frequently stuck in freeway traffic) carry a handful of riders on to Downtown and Uptown is not good transit. But the politicians who backed it would still be able to take credit for "improving transit."

Commuter rail can be good transit. A well-connected system with simple transfers between suburban rail, urban rail, and local bus lines will be many times more useful than a series of unconnected systems. A system that comes within walking distance of homes and workplaces will cost its riders less than one that requires them to drive to a park and ride lot. A system that operates all day will serve more people than one that is based on nine-to-five jobs. Good transit could be commuter rail, light rail, an expanded and improved version of the existing commuter bus system, or a combination of all of these. What technology is used is not the important issue; what level of service is provided to what places is.

Decisions about transit are also decisions about urban form. People and corporations alike make decisions on where to locate based on available transportation. Job centers that are easier to get to will attract more jobs than those that are difficult to access. Transit that connects suburbs will encourage people to move to the suburbs; transit that connects walkable neighborhoods will encourage people to move there. Commuter rail can cultivate dense employment centers (as the HOV bus system has done for Downtown Houston), but it can also support low-density sprawl. If a rail system is frequent enough and runs in both directions, it can support mixed-use activity centers in the suburbs, too. Those centers already exist and are growing in places like The Woodlands and Sugar Land, though they are not necessarily convenient to existing railroad tracks.

Transportation decisions last a long time. The walkable leafy suburbs of New York, Philadelphia, and Chicago were created by commuter rail a century ago, as were the downtowns of those cities. Houston never had much commuter rail (and thus there aren't many small-town downtowns across the region), but Houston's most beloved urban neighborhoods—the Heights, Montrose, the East End—managed to get their human scale from growing around streetcar lines in the first decades of the 20th century. The decisions that will be made in the coming months and years about commuter rail will determine our vision for the future, a vision of what the Houston region will look like 10, 20, 50, even 100 years from now. That is the most important question of all: what kind of city do we want to be, and what sort of transit will support that? **c**

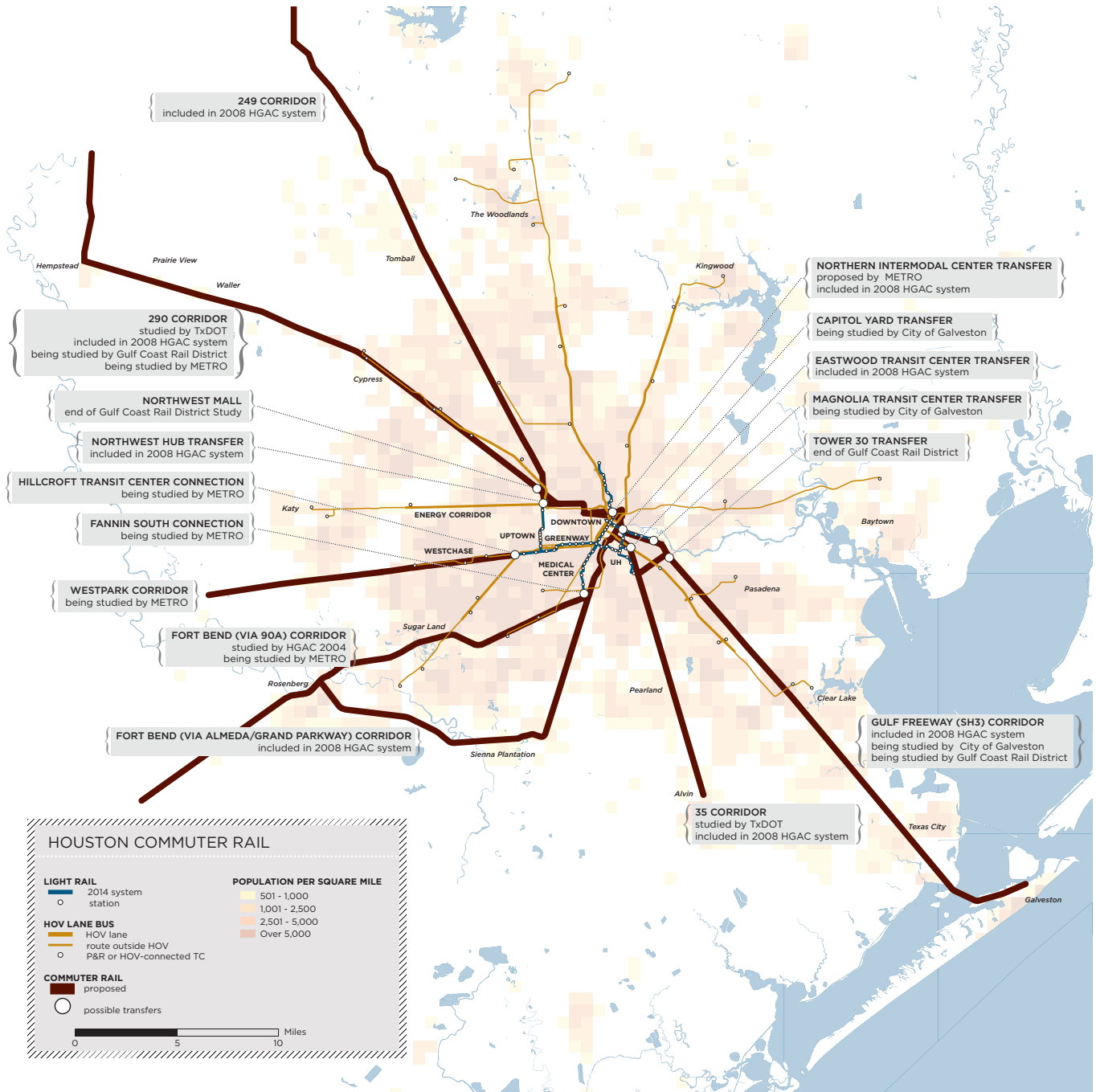


good political as well as financial case can be made for improving transit.

Hundred of thousands of commuters must contend with freeway traffic while paying \$3 a gallon for gas.

more useful to more people? The Main Street line provides a good example: it offers convenient connections to multiple employment centers, it stops in walkable places where riders do not need a car or shuttle bus to reach their destinations, and it runs every few minutes from early in the morning to late at night. The most successful commuter rail systems—those in New York, Boston, Chicago, Philadelphia, and San Francisco—share those traits.

Furthermore, some of the most successful suburban transit systems are not commuter rail at all. Dallas, St. Louis, Sacramento, and Denver built light rail lines that extend over 15 miles out, carrying people on the same sorts of trips that commuter rail systems do. A 2004 study on commuter rail to Fort Bend County concluded that a light rail line would carry people on 21,800 daily trips, compared to 12,100 for a commuter rail line on the same route. The light rail line, operating twice as often and requiring no transfer to get to the Medical Center or Downtown, would cost more to build, but the construction cost per rider would actually be lower. A shorter light rail line—extending only as far as Sugar Land, not Rosenberg—would cost the same as the longer commuter rail line while



HOW TO EVALUATE PROPOSED COMMUTER RAIL ROUTES »

FIVE DIFFERENT AGENCIES ARE DEVELOPING PLANS FOR COMMUTER RAIL

Will the route duplicate services?

Park-and-ride buses extend to near the outer limits of suburban growth in most directions with the exception of Pearland and a few other areas.

Will the line go where people live?

Commuter rail studies have focused on existing freight rail lines radiating out from Houston. Where the proposed commuter rail corridors extend beyond the HOV lanes, it is often into largely unpopulated areas. There are exceptions: the Gulf Freeway corridor is populated all the way

to Galveston, but the HOV lane goes less than half way. Commuter rail could also connect Prairie View or College Station (the latter has not been proposed).

Will the line go where people work?

Downtown is the biggest employment center in Houston, but it's not the only one. Uptown, Greenway, and the Texas Medical Center are all downtowns in their own right. Concentrations of jobs are also in Galveston, The Woodlands, and the Energy Corridor. The more jobs a line serves, the more useful it will be.

Will the line connect well to light rail?

Light rail connects major activity centers inside Loop 610; it would bring most commuter rail riders to their final destinations. Most existing railroad lines inside the Loop are already congested with freight trains, so transfers between commuter rail and light rail as far out as Northwest Mall have been proposed. The further the transfer is from a rider's final destination, the less convenient it is.