



METRO

WHAT'S NEXT?

Planned extensions will connect neighborhoods to rail.



TEXT, PHOTOGRAPHS, AND MAPS BY CHRISTOF SPIELER

In November, Houston voters approved 72 more miles of light rail. But don't start rethinking your commute just yet: Ground will not be broken for the new lines until 2006, and passengers won't be able to board until 2008.

The next two years may seem uneventful on the streets. But many of the most critical decisions—decisions that will affect riders, residents, and businesses for decades—will be made in this period. Many options for the new rail lines still exist; nothing is final yet. This summer, the agency's new board, led by chairman David Wolff, has been publicly raising doubts about the plan and its concentration on street-running lines in Inner Loop neighborhoods. Time will tell if this is a change of direction or merely a lead-in to more refinements. Meanwhile, the studies move forward.

The days when federally funded infrastructure projects were hatched in back rooms are long gone. Federal law now mandates a multi-part process of studies, reports, public hearings, and decisions with long appeals before the bulldozers ever arrive.

THE PLANNING PROCESS

To satisfy federal cost-effectiveness and environmental standards, the rail planning process will be broken into three major steps.

The first step, Alternatives Analysis, considers different technologies and alignments, which are ultimately decided on by the METRO board. Next, the chosen alignment is refined and an Environmental Impact Statement is prepared in the Preliminary Engineering phase. Blueprints aren't prepared until the last step, Final Design.

A street alignment and station locations are selected at the completion of the first step. But those are subject to change in the second step, when details such as land acquisition and the locations of traffic signals, left-turn lanes, and bus stops are considered. Preliminary Engineering also provides opportunities for public and private scrutiny of those decisions.

As a result of this very scrutiny, the Main Street Line went through several significant changes after the completion of Alternatives Analysis. The transition from Main Street to Fannin and San Jacinto, for example, was moved south from between McGowen and Holman



But will the neighbors want it?

to Wheeler, in response to the Main Street Coalition's desire to reinforce the importance of Main. Also, two stations originally planned for the north end of downtown—at Franklin/Congress and Texas/Capitol—were combined into one, at Preston, to save money. And a second track was added on the bridge over Buffalo Bayou to prevent a future bottleneck for trains.

LEARNING FROM MAIN STREET

Five new lines are due to be completed by 2012; all have been authorized for bond funding by voters, and work on them is moving into high gear. The North/Hardy and Southeast lines are in the Alternatives Analysis phase; the Harrisburg, Westpark, and Downtown Connector lines have not yet traveled that far.

One thing is already clear: The METRORail extensions will be very different from the Main Street Line. No other segment offers the big-ticket attractions of Main Street: Stops in Downtown, the Museum District, and Reliant Park have led to unexpectedly strong night and weekend ridership. It's hard to envision families driving in from the suburbs to ride light rail to, say, Northline Mall.

The major activity centers that will be added to the system—the University of Houston main campus, Texas Southern University, and Greenway Plaza—will attract students and office workers but not so many casual riders. The main idea behind the Harrisburg, North/Hardy, and Southeast extensions is to connect neighborhoods to rail. Because they will pass through areas less dense than Main Street, their stations will be placed farther apart. The Main Street Line averages a station every half-mile; the extensions will have stations more than a mile apart. As a result, trips will be faster. A trip from UH-Downtown to Fannin South takes thirty minutes at an average speed (including stops) of 15 miles per hour; the trip from downtown to Northline Mall would take only sixteen minutes at an average of 20 miles per hour, and future express service would cut that to fourteen minutes.

The extensions also will bring different challenges. Introducing the Main Street Line without radically altering existing automobile traffic patterns was relatively easy. Outside the Medical Center, that corridor has good traffic capacity. METRO was able to demote Main from an arterial to a local street

because Fannin, San Jacinto, Milam, and Travis offered alternate routes. Scott Street, Harrisburg, and Fulton are not easily replaceable; the traffic capacity of those streets must remain high even as rail is added. That will take compromises.

And don't expect the landscaped median, which takes up a lane of Main, to be repeated everywhere. Nor will there be room to add wider sidewalks and street trees. The streets being considered for the extensions are often both narrow and busy, and with the high incidence of wrecks on Main, METRO's designers are trying to create separate left-turn lanes at all signalized intersections. The result will be a much safer, but less attractive, route.

RAISING QUESTIONS

The thought of traffic hassles inevitably leads to talk of alternative technologies. Pro-monorail websites gleefully point out that monorail would preclude such problems. Mayor Bill White (and many others) have argued that portions of the new lines should be elevated. But grade separation isn't the panacea it's held out to be. For one thing, it's more expensive—the 14-mile monorail Seattle is preparing to build will cost \$90 million a mile for a

partially single-track route; Houston's double-track Main Street Line cost \$40 million. Elevating light rail could be even more expensive. A higher cost per mile simply means less rail. METRO barely won approval for the expansion plan with no new taxes; it's doubtful there would be public support to double the cost.

It's also doubtful that elevated rail of any sort would be acceptable to neighborhoods along the lines. A well-designed elevated trackway is obtrusive enough. Stations above city streets—essentially elevated boxes 300 feet long and 40 feet wide, with double escalators and elevators—would be worse. Opposition to elevated structures from neighborhoods along Richmond and Westpark played a big role in killing the 1991 monorail plan promoted by Mayor Kathy Whitmire. METRO does not want to risk a repeat.

So far, neighborhood fears seem to be outweighed by anticipation. The Main Street Line has made rail transit in Houston tangible. Now that people can see, hear, and ride light rail on Main Street, it's much easier to imagine it elsewhere. ■

Downtown Connector

BAGBY TO DOWLING

ALTERNATIVES ANALYSIS: 2004

PRELIMINARY ENGINEERING: 2005-2006

FINAL DESIGN: 2006-2007

CONSTRUCTION: 2007-2010

LOCATIONS 1, 2, 3, 4 ON MAP, OPPOSITE PAGE

The Downtown Connector is how Harrisburg and Southeast trains will enter downtown. The line must do three things: connect with the Harrisburg and Southeast lines on its east end, provide a convenient transfer to the Main Street Line, and connect to the future Inner Katy Line on the west end.

This short downtown segment likely will be the most controversial of this round of extensions. Downtown interests, with memories of street construction fresh in their minds, don't want it at all; they suggested the Harrisburg, Southeast, and Inner Katy Lines connect north or south of downtown, taking all trains though downtown on Main Street. But that would put limits on service: The Main Street Line is designed to handle a two-car train every three minutes in each direction; more would excessively disrupt traffic on cross streets. METRO also felt that it was important to put stations near the George R. Brown Convention Center and near Smith and Louisiana. As a concession,

though, METRO offered assurances that a subway alignment—which would not eliminate traffic lanes or require as much street work—would be studied.

METRO is now studying two options: a surface line on Capitol and a subway alignment on Walker. While conventional wisdom holds that a subway can't be built in Houston, it's merely expensive. After all, Amsterdam—a much more waterlogged city—has a downtown subway. Subway stations are considerably more complicated than surface stations, with elevators, escalators, and mezzanines, but because the entrances—connected to the station with underground passages—can be a block or two from the platforms, they can serve a larger area. A subway also offers other advantages: East-west trains would not interfere with north-south trains, and the small blocks downtown wouldn't limit train length. A downtown street alignment would forever limit METRO to two-car trains; with a subway, the entire line could handle three-car trains.

Harrisburg

DOWLING TO MAGNOLIA TRANSIT CENTER

ALTERNATIVES ANALYSIS: 2004-2005

PRELIMINARY ENGINEERING: 2006-2007

FINAL DESIGN: 2007-2008

CONSTRUCTION: 2008-2010

LOCATIONS 5, 6, 7 ON MAP, OPPOSITE PAGE

The Harrisburg Line was included in the METRO Solutions plan as a sort of affirmative action. This heavily Hispanic neighborhood didn't figure in the three corridor studies that METRO conducted before assembling the plan; it was the only line in the draft plan that has not been the subject of a public study. But METRO needed minority votes. Politics

aside, this line makes sense. It serves a dense, low-income, transit-dependent neighborhood and intersects major cross-town bus lines.

The Harrisburg Line's schedule must move fast; unlike the Southeast Line that's due to open at the same time, it has not been the subject of an alternatives analysis. That study will start later this year.

Southeast/Hobby

DOWLING TO GRIGGS/LOOP 610

ALTERNATIVES ANALYSIS: 2002-2004

PRELIMINARY ENGINEERING: 2005-2006

FINAL DESIGN: 2006-2007

CONSTRUCTION: 2007-2010

LOCATIONS 8, 9, 10, 11, 12 ON MAP, OPPOSITE PAGE

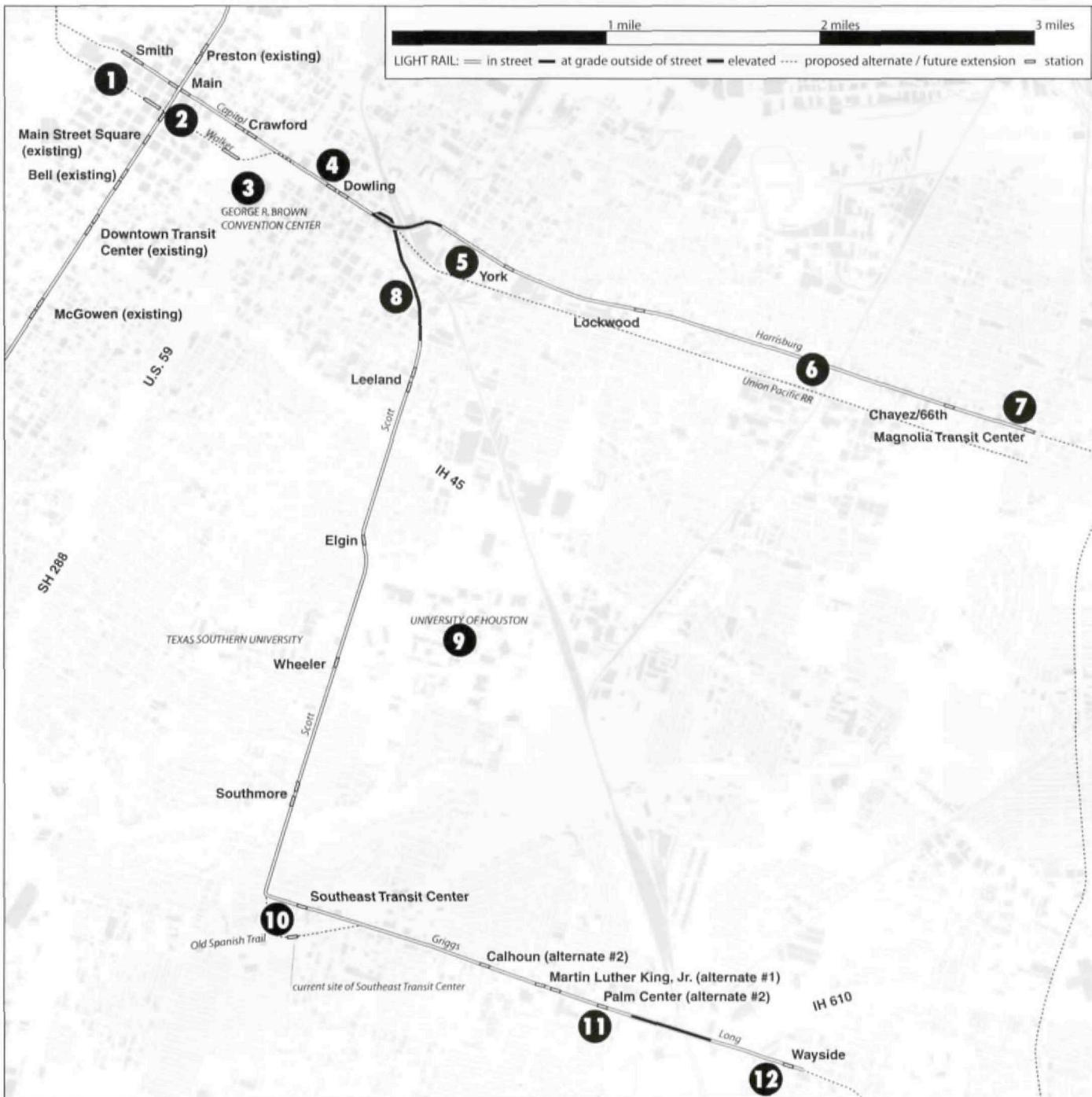
A southeast line of some sort has shown up repeatedly in METRO's plans. The most visible draws are the University of Houston and Texas Southern University. But the areas around the universities may provide more riders. The Southeast Corridor covers only 5 percent of METRO's service area but accounts for 25 percent of bus ridership. These are primarily black and for the most part low-income neighborhoods. The Southeast Line will place light rail stations in the midst of these neighborhoods and link to busy bus lines.

The neighborhood is deeply ambivalent about rail. Community leaders, having seen what's happened to the Fourth Ward, are afraid that development will drive out current residents. Some are trying to stop developers from buying property. Others, like Scott Street Coalition president John Guess III, are trying to channel it. He's looking for orderly growth that will "turn the tide of pressure on the neighborhood to disappear." Rail, he says, is a challenge—but the high-density development that follows could also bring enough additional residents to create demand for much-needed services such as drugstores and groceries.

1) The Downtown Connector begins at Bagby, where connections would be left for a future extension out to the Heights and the Northwest Transit Center. METRO's preliminary route for this extension is on Washington Avenue. The west side is an obstacle course, with superblocks and streets turning into freeway ramps. The Capitol surface alignment could continue by following Capitol past the Hobby Center, passing under I-45, then turning right on Houston Avenue past the courts to reach Washington. The subway alignment, some 60 feet under downtown streets, would tunnel under the bayou and surface in Houston Avenue. The surface alignment includes a station at Smith, among the highrises and only a block from the Theater District. The subway alignment relies on pedestrian tunnel links from the Main Street station to avoid the cost of another station.

2) An easy transfer to the Main Street Line is critical for the success of the light rail system as a whole. Unfortunately, the design of the line makes this difficult. Capitol falls in the longest gap between downtown stations: East- and westbound platforms on Capitol would be two blocks from the nearest northbound platform and two blocks from the nearest southbound platform. That's a long walk for, say, someone traveling from the Medical Center to Hobby Airport with luggage in August. An earlier version of the Downtown Connector actually proposed closing a block of Main Street—from Capitol to Rusk—to traffic in order to add a station to the Main Street Line, but that's no longer on the table. A subway station on Walker would be better in this regard, with walks of one or two blocks, some of which could be underground, and it would be only a block from the downtown "superstop" at Reliant Energy Plaza. The subway station would have entrances directly from the sidewalk, but if owners of adjacent buildings were willing (which they presumably would be), it could connect directly to the downtown tunnel system as well.

3) There are three major attractions on the west side of downtown: Minute Maid Park, the George R. Brown Convention Center, and Toyota Center. Since these extend six blocks north-south, it's impossible to serve them all well with an east-west line. The massive superblocks these facilities occupy set up another obstacle course: in the 12 blocks between Congress and Bell, only four east-west streets are continuous. Of those, Capitol is probably best: next to the convention center and only two block from the ballpark, with a good connection to the east. There's more flexibility in subway alignments since the tunnels could pass right under the convention center or, more likely, cut diagonally under a block to miss it. The Walker subway alignment is farther from the ballpark than Capitol but closer to the skyscrapers of Houston Center, where a subway station could be connected directly to the skywalk system. A direct connection to the convention center's indoor concourse, with its link to the Hilton Americas, would also be possible.



9) The University of Houston is eager to get rail, which will give commuter students an alternative to driving and connect the university to downtown and its sister campus. But Scott skirts a scruffy and disjointed edge of the university. A student getting off at Holman or Wheeler would have to walk over half a mile—well over the quarter-mile considered an easy walk by transit planners—to reach the center of campus. However, the UH shuttle bus system would be rerouted to meet light rail. METRO was already planning a new UH transit center; it can now be built at a rail station to provide easy connections between bus, light rail, and the shuttles. It's also likely that the gap between light rail and the campus will close over time. UH is currently studying a new parking garage with 50,000 square feet of ground-floor retail; the favored site is at Scott and Holman. Designed properly, it could be a gateway to the university. Texas Southern University, as far from Scott as UH is in the opposite direction, does not yet have a shuttle system, but is planning to start one.

10) The Southeast Transit Center—already served by eight bus routes with a 325-space park-and-ride lot—will become even more important with the coming of rail. The question is whether rail will come to the transit center or the transit center will come to rail. The current site is on the south side of Old Spanish Trail, just east of Scott. Getting trains there would require the alignment to continue on Scott past Griggs, cross Old Spanish Trail, follow it for two blocks, then rejoin Griggs. The other option is to run the tracks from Scott directly onto Griggs and build a replacement transit center adjacent to them, north of Old Spanish Trail. Ultimately, the choice will come down to cost and neighborhood input.

4) The Harrisburg and Southeast lines meet a mile west of downtown in a deserted industrial neighborhood. METRO is considering this area for a facility to store and maintain the fleet for the two lines. That makes operational sense—trains from either line wouldn't have far to go after ending their runs downtown—but it may be shortsighted. Already there is some residential development on the western edge of this area; the vacant and underused buildings and empty lots here could become great high-density housing, especially with a direct light rail connection to downtown and (eventually) Post Oak.

5) After splitting, the Harrisburg Line will need to cross over a major railroad line. There are two options for the Harrisburg Line's alignment: the street itself or the Union Pacific railroad line paralleling it one block away. Harrisburg is relatively narrow—only four lanes near downtown—and is dotted with many businesses. Putting light rail in the railroad right-of-way would minimize traffic congestion—and let the trains run faster—without making the stations any less convenient. On the other hand, the railroad is relatively busy—it's the UP's main link to Galveston—and railroad would have to be accommodated either by fitting both freight trains and light rail in the same corridor or by upgrading other routes (through other neighborhoods) to handle the freight traffic.

6) Near 65th Street, Harrisburg crosses a busy freight rail line. The light rail route will need an overpass. This may be a chance to build a road overpass and provide relief for local residents who are frequently stuck behind crossing gates.

7) The Harrisburg Line will end at the Magnolia Transit Center, where eight bus routes converge. The METRO Solutions plan shows this line being extended south from here, past Gulfgate Mall, to rejoin the Southeast Line on the way to Hobby Airport.

8) After parting ways with the Harrisburg Line, the Southeast alignment follows an old railroad right-of-way to meet Scott Street. North of I-45, Scott is wide: The grassy median is generous enough to fit two light rail tracks without changing the traffic lanes. South of I-45, though, Scott widens from four to six lanes and the median narrows. The Alternatives Analysis calls for removing two traffic lanes to fit rail. This may not go over well. Scott carries 17,000 cars a day, with few alternate routes. Based on resident concerns about traffic, METRO is now looking at keeping two traffic lanes in each direction with left-turn lanes at intersections. That would require property acquisition continuously from I-45 to Griggs. Some of that might be university land, but some would be homes and small businesses.

11) Griggs provides an easy path for rail, with a wide median and low-density commercial land use. METRO is considering a single station at Martin Luther King, Jr. Drive or two stations, one at Calhoun and one at Palm Center, both of which could have park-and-ride lots. The only tricky area along the way will be where Griggs, Long, Mykawa, and two major railroads meet. Light rail trains could be carried over the mess with an extended overpass. Other agencies have plans here, too: The City of Houston has long wanted to build an overpass, and the Harris County Toll Road Authority would like to bring a toll road through. If the governmental stars align, all those plans could dovetail nicely. Otherwise, METRO can only hope it gets there first.

12) The ballot proposition specified that this phase of the Southeast Line would end at Griggs and 610; the AA has extended it a bit farther to the prosaically named East of Wayside Station. Though METRO is considering a park-and-ride lot here, the end of the line is arbitrary, a pause on the way to Hobby Airport by 2025.

North-Hardy

UH-DOWNTOWN TO NORTHLINE MALL

ALTERNATIVES ANALYSIS: 2002-2004

PRELIMINARY ENGINEERING: 2005-2006

FINAL DESIGN: 2006-2007

CONSTRUCTION: 2006-2008

In 2003, METRO Executive Vice President John Sedlak said that if METRO had had more money, he would have wanted the Main Street Line to extend farther north. After four years' delay, it will. The extension is simply logical: It requires no street construction downtown; makes better use of Red Line trains, which now leave UH-Downtown nearly empty; and lets METRO prune bus lines to the north as it's doing to the south.

The North-Hardy Line will have a split personality. It will start off as a neighborhood transit service, serving largely residential neighborhoods and linking to local buses. As the later phases of METRO Solutions are implemented, however, it will also be a 22-mile line to Greenspoint and Intercontinental Airport. The Alternatives Analysis sets out a dual service to fit that dual purpose. Every six minutes, a local train will leave down-

town, stopping eight times en route to Greenspoint, getting there in 32 minutes. An express train will leave a few minutes later, stopping only twice and passing the local on the way. Every other express train will continue on to the airport, four stops and 38 minutes from downtown. That's an average speed of 35 miles per hour; it will take only four minutes longer to get from downtown to Intercontinental on light rail as it will to get to Hobby, nine miles closer.

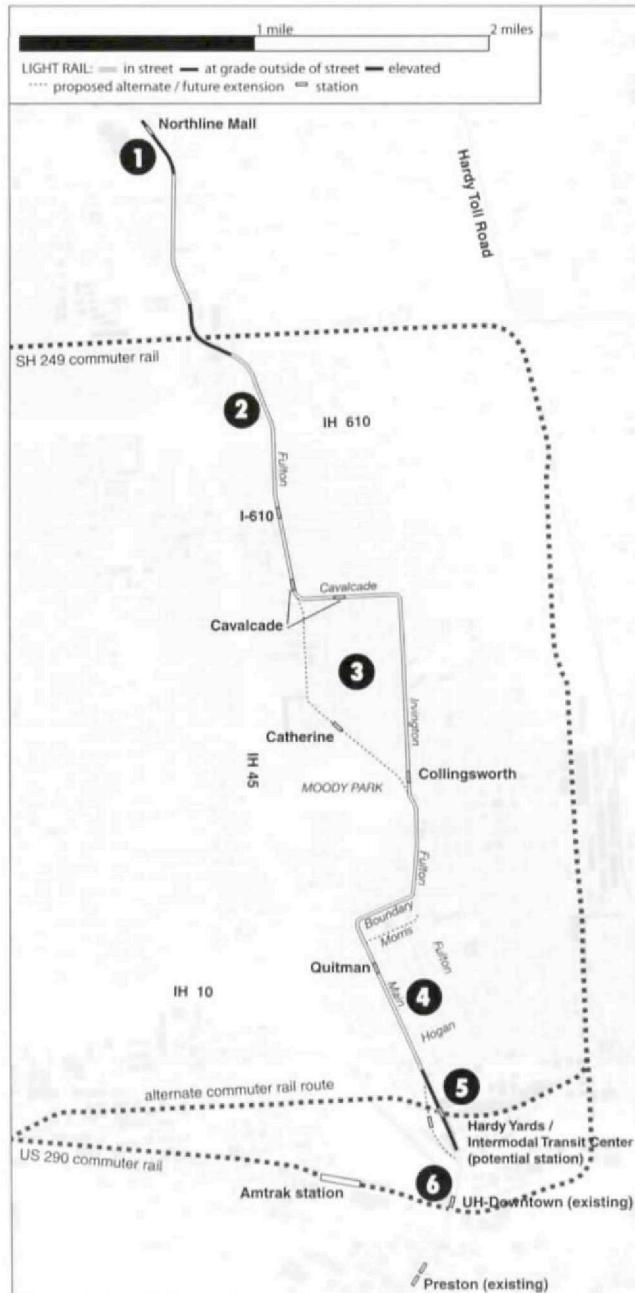
1) Northline Mall already has a small transit center in a corner of the parking lot. With the coming of rail, a new, bigger transit center will be built—most likely closer to the mall. That can benefit both METRO and the mall; some passengers may ride rail to go shopping, while others may find it convenient to ride rail to work if they can take care of shopping on the way home. But it's by no means a done deal; the mall management may worry that rail will make the parking lot harder for cars to navigate and that rail commuters from adjacent I-45 may take parking spaces from shoppers. METRO and mall management will be talking as preliminary engineering continues to figure out how to make the arrangement work for both parties. The mall station will include a third track for express trains; the tracks will be extended a few hundred feet past the station to connect to the future extension to Intercontinental Airport, which will continue elevated on Airline Drive. Before that extension is completed, Northline will be a major bus-transfer point. That role will diminish when rail pushes farther north, but Northline will remain a key station; in fact, the current plan proposes that some trains operate only this far, giving Northline more frequent service than points north.

2) The line heads south on Fulton, crosses under 610 at grade, then rises onto a short overpass to cross a BNSF freight railroad line. Harris County is considering this line for commuter rail; that study discusses a possible light rail-commuter rail transfer station here. The North/Hardy Alternatives Analysis, however, makes no mention of this possibility and proposes no provision for a station. METRO is considering extending the overpass into a segment of elevated line over Fulton as far as Northline Mall to reduce traffic at the Fulton-Crosstimbers intersection, which will suffer unacceptable congestion within ten years even without trains crossing.

3) One alignment being considered would continue on North Main across I-45 to Airline. However, the transit demand is on the east side of Main; analysis indicated that an alignment along Fulton and Irvington would draw 40 percent more riders. The biggest problem with this alignment is getting from Main to Fulton. METRO considered following White Oak Bayou, but that would have required taking parkland. An alignment along Boundary Street is now the leading



candidate, though it would require taking all the houses on one side of the street to provide enough room for light rail and cars. Local officials have proposed crossing over Fulton farther south, but that would require even more property. The current alignment then follows Fulton, veers off onto Irvington, then turns sharply left onto Cavalcade to return to Fulton. The direct route along Fulton—eliminated early on because it would require extensive property acquisition—is now back on the table thanks to neighborhood requests; it would provide better access to Moody Park, serve homes near Fulton, and avoid impacts to businesses and street trees on Irvington.



4) Light rail will bring North Main closer to a long-held ambition of being the equal of the more glamorous South Main. That was part of the vision behind connecting Main across the bayous in 1912; 78 years later, the Main Street Master Plan included this neighborhood, which it dubs the Northside Village. The vision, it's not surprising, includes mixed-use development, streetscape improvements, and light rail.

5) A few blocks north of UH, Main passes under an active rail line. There's a lot of potential around here, and a tug-of-war is developing. To the east are the abandoned Hardy railyards, 45 acres of vacant land in the heart of Houston. Hardy Street Partners has bought the property and is seeking developers for its redevelopment. Their master plan calls for residential space with some office and supporting retail. B. Kelley Parker III of Cushman/Wakefield, who is marketing the property, notes that light rail is "absolutely relevant" to the project: "It isn't the driver, but it is a potential benefit."

But the new residents will need a station. The existing UH-Downtown station is half a mile from the yards, and the alignment doesn't place a station any closer. It does, however, specify an elevated line over the railroad with provision for a potential future station. An elevated station isn't cheap, but the Partners are talking to METRO about including it. Parker says they might even be willing to pay for it.

Parker joins downtown groups in proposing an intermodal transit center linking light rail, commuter rail, and Amtrak. The Partners own some of the land on which such a station would be built. In the future, commuter train riders might transfer to light rail simply by taking an escalator. But this potential could also be lost: The Partners won't keep the land vacant forever.

Meanwhile, the owners of the old Missouri-Kansas-Texas yards to the west are concerned about the light rail ramp along Main blocking access to their property. It's a testament to their long-sightedness—and a measure of how far Houston has come with regard to rail—that their solution is not to try to kill the project but to offer land and funding for METRO to bring the rail a few hundred feet west, putting a station on their property, which they would then develop as high-density residential and retail along the line of Dallas's Mockingbird Station. That would put the station farther from the Hardy Yards but next to a UH student parking lot and still close enough to the rail line for a transit center.

6) The UH-Downtown station is an odd rail terminal, perched atop a bridge surrounded by bayous. The tracks end abruptly at a pair of concrete bumpers. It's already easy to visualize where they will continue, following the western side of North Main under I-10.

Westpark
WHEELER TO HILLCROFT TRANSIT CENTER

ALTERNATIVES ANALYSIS: 2004-2005
PRELIMINARY ENGINEERING: 2006-2007
FINAL DESIGN: 2007-2008
CONSTRUCTION: 2009-2012

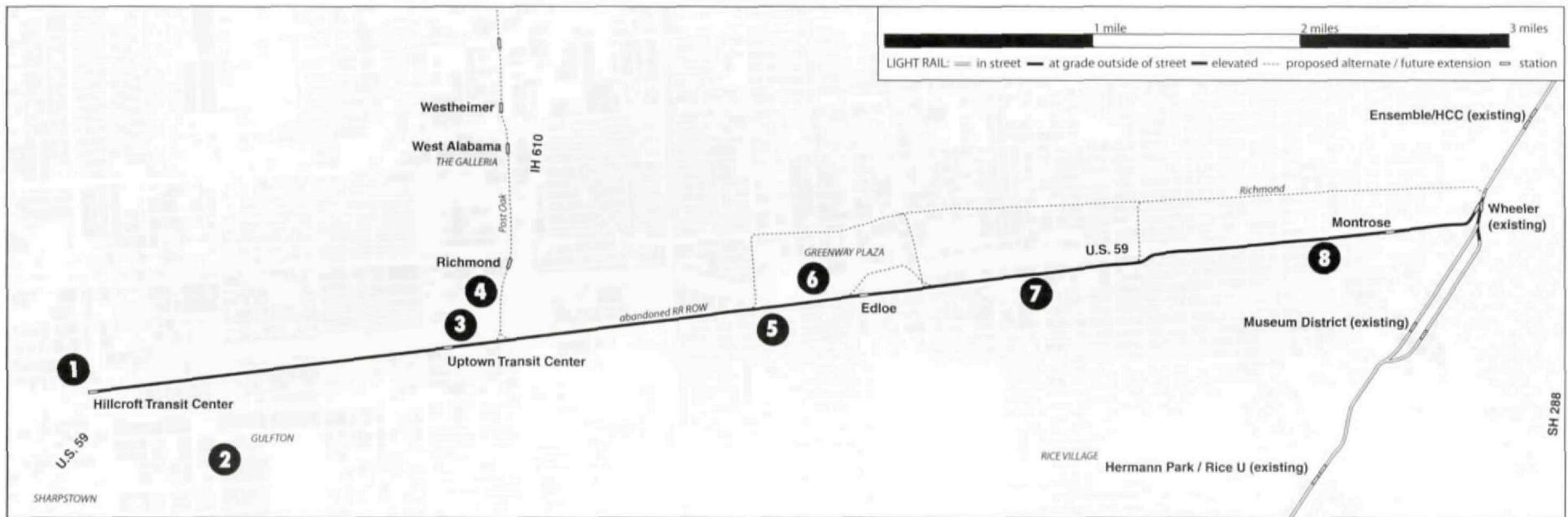
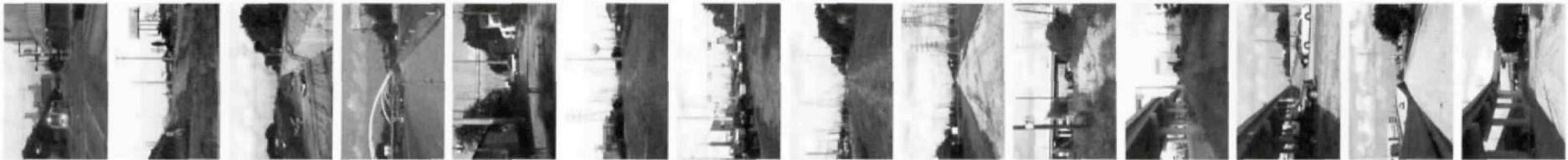
The Westpark corridor was a last-minute addition to the METRO Solutions plan, appearing between the draft and final plan. But METRO knows it well: Two of Houston's near misses with rail (the 1983 heavy rail line and the 1991 monorail) would have taken it. The appeal is obvious. But so are the problems.

The line reappeared in METRO's plan for one reason: the Greenway Plaza office complex. But the corridor could also serve

as Houston's first high-speed suburb-downtown rail line. The conflict between these two roles—distributor and feeder—is exemplified in the two major right-of-way options. Richmond Avenue promises miles of congestion and speed limits of 35 miles per hour, but it is where the people are. Parallel and less than half a mile away, an abandoned rail line offers the possibility of faster trains separated from cars at about the same cost, but it misses

all of the major employment centers.

METRO's preliminary plans show the line in the rail right-of-way along Westpark. This Westpark Line would be significantly different from the rest of the METRORail system. Trains would run at 60 miles per hour, offering a quick connector from the west side (a compelling alternative to U.S. 59 traffic). But a Richmond alignment will have to be considered as an option.



1) The Westpark Line will begin at the Hillcroft Transit Center, an existing bus transfer point and park-and-ride linked to the 59 HOV lane. Here, HOV bus service could be linked up to allow drivers from 59 and the Westpark Toll Road to catch rail. Eventually, METRO may heed Gulf Coast Institute director David Crossley and extend light rail farther west, providing rail service to Westchase.

2) One of the densest residential areas in Harris County (over 5,000 people per square mile in giant apartment complexes) is Gulfton, just south of Westpark around Chimney Rock and Fountain View. METRO doesn't show a station here, but the Alternatives Analysis might change that. In any case, a circulator bus could connect to nearby stations.

3) METRO's plans call for a transit center, most likely with a parking garage, where the Westpark and Uptown/West Loop lines meet. This center could form an important hub where riders can transfer from commuter buses on the Westpark Toll Road and Southwest Freeway corridors and where people headed to work, shops, and restaurants might park to avoid Galleria-area traffic.

4) In a brand-new trench under 59, a wide shoulder has been reserved so the future Uptown/West Loop light rail line can pass under the freeway and emerge in the center of Post Oak Boulevard. This unique accommodation—a first for Houston—came about with money from the Post Oak TIRZ. Obviously, the Post Oak business community can't wait for light rail.

The Uptown light rail line—which would extend I-10 to 59, following Post Oak and the West Loop—would serve two purposes. It would bring in commuters from other sections of the light-rail system, as well as from HOV-lane buses on the Northwest, Katy, and Southwest freeways; and it would carry people between offices, hotels, retail, and restaurants along Post Oak. Uptown Houston District's John Breeding expects all-day transit demand and says that commuters would account for only about half the ridership.

But Uptown will have to wait. METRO places the opening of the Uptown/West Loop Line at 2014 and did not include the line in the bonds authorized in November. Breeding holds out hope that funding may be found by cost savings in other lines, by delaying the outer section of the Westpark Line, or even by having Uptown issue bonds for METRO. Most likely, though, Uptown will need another election to get light rail.

5) West of Edloe, the Westpark corridor adjoins a quiet residential neighborhood. This was once an active railroad line—Ringling Bros. and Barnum & Bailey was still unloading circus trains here in the late 1990s—but the neighbors probably aren't eager to see trains—even sleek, quiet, electric trains—return. Organized opposition here helped kill the earlier rail proposals.

6) One major problem with the Westpark alignment is that it's on the opposite side of 59 from Greenway Plaza, the third-largest employment center in Harris County. An elevated line might cross the freeway, stop at an elevated station above the southbound frontage road linked to the pedestrian plaza and retail concourse between Buffalo Speedway and Edloe, and re-cross the freeway. That would require complicated structures, some property acquisition, and the cooperation of Greenway's owners. A street alignment might follow Buffalo Speedway, Richmond, and Wesleyan, but that would impair street traffic and require at least two sharp turns in busy intersections. The lowest-cost solution would be to keep rail south of the freeway, building a station with a pedestrian connection—perhaps simply an improved sidewalk, a pedestrian bridge, or an air-conditioned skywalk with moving walkways—across the freeway.

7) The Westpark right-of-way crosses a series of congested north-south streets—Shepherd, Greenbriar, Kirby, Buffalo Speedway, Edloe, and Wesleyan—near where those streets meet the Southwest Freeway. It's likely the Alternatives Analysis will conclude that crossing gates here would cause unacceptable traffic problems. Elevating or depressing the entire line would be expensive. Most likely it will cross over some major streets on short overpasses, returning to ground level in between and crossing minor streets such as Wakeforest at grade.

8) Only a narrow strip of land remains along the south side of the freeway east of Shepherd; putting light rail there would require an elevated structure or railroad crossing gates (with the attendant bells and train horns) immediately behind the backyards of \$400,000 homes. Another possibility is Richmond, but businesses and homeowners along the way might raise significant opposition. Instead, METRO's preliminary plan places the tracks inside the newly rebuilt 59 trench. The freeway's generous shoulders leave enough room to fit rail on the south side of the trench without taking lanes. This option would include a station under the new Montrose bridge, steps from Chelsea Market, which already looks like transit-oriented development without the transit.