



2004 Oakland Transit Whitepaper

THE  OAKLAND TASK FORCE

Transit in Oakland



Why Transit is Important to Oakland and its Future

Oakland is the region's premiere medical, educational and cultural center, home to University of Pittsburgh and its medical center, Carnegie Mellon University, Carlow University, Magee Women's Hospital, Children's Hospital, and the Carnegie as well as a number of smaller institutions and businesses. It is also a vibrant city neighborhood and commercial district. This diverse concentration of urban life makes Oakland the second largest concentration of daytime population in the region with **over 38,000 workers, 40,000 students, 24,000 residents, and 12,000 daily visitors**. Many of these people rely on transit for getting to and from as well as around Oakland. The Port Authority estimates that as many as 23,000 arrive by bus each weekday during the school year.

Traffic congestion is a constant challenge for Oakland. Not only is Oakland a major regional destination but it also serves as a through corridor between downtown and the eastern neighborhoods and suburbs. Thus congestion is a problem throughout the day. Transit can play a key role in reducing congestion. **One full bus in Oakland means 40 fewer cars on Oakland streets.**



Traffic congestion in Oakland is a common occurrence.

For Oakland to avoid complete gridlock and succeed as a vibrant urban neighborhood and regional institutional center, it needs easy to use and reliable transit service.

Regional Transit Service to Oakland

As a regional employment center, diverse urban neighborhood, and major institutional center, **as many as 23,000 workers, visitors, residents and students use transit everyday to get to and from Oakland.** On any given weekday, one out of four people working in Oakland arrived by bus. For students the ratio is likely higher given their free access to transit while for visitors the ratio is estimated at one in ten.

Oakland universities have picked up on **the role of transit in maintaining a competitive advantage among urban campuses.** There is a growing trend throughout the nation of urban university centers providing a higher level of transit service for its students and faculty as a means of better integrating

urban campuses and their activities with the larger urban area. This also helps reduce traffic and parking congestion on campus. In late 1990s both the University of Pittsburgh and Carnegie Mellon University entered into agreements with the Port Authority to provide free transit service for university students, faculty, and workers. In addition, Carlow University provides discounted passes for its students and subscribes to the Port Authority's EZ Gold transit pass purchase program. (Nine other Oakland institutions and employers also subscribe to the EZ Gold program.) By subscribing to a higher level of transit service, the housing choices for Oakland students have expanded beyond Oakland as have shopping and social opportunities. Traffic and parking in Oakland have also benefited.

The bulk of transit routes serving Oakland are oriented in an east-west direction. Over 60,000 bus riders pass through Oakland on a given weekday with 23,000 getting off in Oakland. In addition, 70 municipalities with 370,000 residents have direct bus service to Oakland.



Getting Around Oakland by Bus and Shuttle

Oakland has four institutional shuttle services transporting several hundred institutional workers, faculty, and students every day.

This includes shuttles operated by the University of Pittsburgh, Carnegie Mellon University, Children's Hospital, and University of Pittsburgh Medical Center. The University of Pittsburgh alone transports on average over 3,300 passengers a day. In addition, Port Authority bus routes, the 84A and 84B, provide local shuttle service within Oakland and adjacent neighborhoods.

The University of Pittsburgh has several shuttle routes including an Upper Campus shuttle that carried just over **500,000 riders during the 2003-2004 academic year** and a South Oakland Shuttle that carried about **70,000 riders**. They also operate shuttle routes serving Chatham College, Carlow University, North Oakland, Pittsburgh Technology Center, and South Side. The **University of Pittsburgh Medical Center** operates shuttle services for its fringe parking lots along 2nd Avenue and in North Point Breeze and the South Side as well as shuttles to its satellite facilities in Shadyside and the South Side Works area. **Carnegie Mellon University** operates two shuttle routes – an Oakland shuttle route that serves adjacent neighborhoods and their Mellon Center and SEI facility in Oakland and a Pittsburgh Technology Center route that serves its facilities at the Technology Center. All together, Oakland is well covered by private shuttle operations although their use is limited to individual institutional members.



The University of Pittsburgh operates a shuttle fleet of 22 buses carrying over a half million passengers annually.

Public shuttle service is provided by two Port Authority routes - the **84A and 84B bus routes**. They serve South Oakland, Central Oakland and West Oakland. Ridership on the 84A averages over 1,100 riders a weekday and just under 1,400 on weekends during the school year. Ridership on the 84B averages almost 500 riders a weekday and another 300 on weekends. These buses carry a number of employees and students living in adjacent neighborhoods and working or schooling in Oakland.

Together these shuttle services provide excellent coverage and frequency throughout Oakland. However, most are restricted to institutional students and employees. Only the Port Authority services are available to the general public.

Getting to the Oakland Satellites by Bus and Shuttle

Oakland institutions have branched out into nearby city neighborhoods. The University of Pittsburgh Medical Center has facilities on the South Side and in Shadyside. Carnegie Mellon University has ties to facilities in Lawrenceville and both the University of Pittsburgh and Carnegie Mellon University have a presence in the Pittsburgh Technology Center. Children's Hospital is relocating its main facility to Bloomfield. In addition, Oakland institutions operate fringe parking lots in Junction Hollow, along 2nd Avenue, and on the South Side. The following is only a partial list of nearby neighborhoods and the presence of Oakland Institutions.

Future institutional expansions point to Hazelwood and the West Portal/Uptown area between Oakland and downtown. Expanding shuttle and transit services to these areas will be necessary if they are to become fully accessible and fully integrated satellites of Oakland institutions.

Expanded transit service to Oakland satellites will have the added benefit of connecting these nearby neighborhoods with the employment, health, educational, and cultural resources of Oakland.

South Side

UPMC Health Systems Distribution Center

UPMC Sports Medicine Facility

McGowan Center for Artificial Organ Development

UPMC Institute of Rehabilitation and Research (*Proposed*)

Shadyside

UPMC Shadyside Hospital

UPMC Hillman Cancer Center

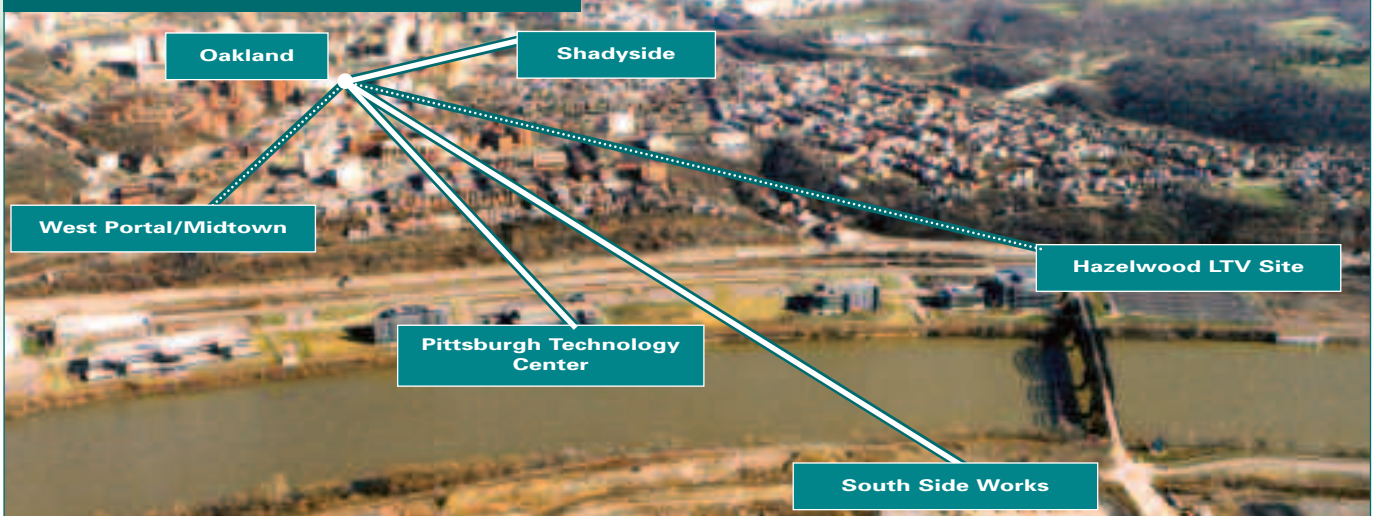
Pittsburgh Technology Center

University of Pittsburgh's Center for Biotechnology and Bioengineering

Carnegie Mellon Research Institute

Oakland institutions are spreading out. With facilities already in Bloomfield, Shadyside, and the South Side, they are looking to Hazelwood and the West Portal/Uptown areas. To better insure connectivity with these satellites, improved public transit service to and from Oakland is a necessity.

OAKLAND INSTITUTIONS SATELLITE FACILITIES



Connecting with Downtown and the Airport



The popular 28X service between Oakland, downtown and the airport.

Downtown Pittsburgh is the region's center of business and employment as well as governmental services and professional sports and cultural venues.

The weekday population in downtown exceeds 150,000 commuters, visitors, and students and boasts an additional 3,000 residents. **The Greater Pittsburgh International Airport is this region's national and international gateway.** It is also a major employment center with over 85,000 jobs within an eight mile radius of the airport. Like downtown, the airport area is a major engine for economic growth.

Over 50% of all trips between Oakland and downtown occur by bus, making the downtown-Oakland corridor one of the busiest transit corridors in the region. It is also one of the most well served corridors with buses running every two to three minutes during the weekday. Many of these trips are commuters transferring in downtown to get to Oakland. Others are students, professionals and visitors heading to classes, meetings and Oakland attractions.

For transit trips between Oakland and the airport, the Port Authority instituted the 28X, providing direct Oakland to airport service via downtown in 1996. For March of 2004, **average daily ridership on the 28X was over 1,300. About 40% of those riders (approximately 500) were Oakland residents, visitors, business executives, and students** traveling to and from the airport corridor. At peak university travel times, ridership swells, overwhelming the capacity of the existing buses.

Connecting these three areas of growth (Oakland, downtown and the Airport) with more frequent and reliable transit service would improve their synergistic ability to attract development to the region and generate jobs.



Oakland looking west to downtown.

Core Values – Oakland Transit Service

In August of 2003, a set of Oakland Transportation Core Values were established as part of *The Future of Oakland: A Community Investment Strategy* report. The core values addressed the transportation needs of Oakland's diverse community including students, professors, doctors, workers, residents, visitors, and patients and included attention to all modes of transportation. The value statements included a transportation agenda for Oakland with guiding **principles for pedestrian, cyclist and motorist investments as well as the following principles for transit investments.**

Support and enable:

- ~ reductions in vehicle congestion by decreasing commuter reliance on cars and improving the availability and quality of alternatives including public transit and shuttle services,
- ~ convenient and understandable transit service with an improved pedestrian environment for patrons and traffic flow for buses, and
- ~ high quality regional transit service including efficient access to and from the airport.

Additional values related to transit service in Oakland were articulated through recent studies undertaken by the Port Authority. Those values included;

- ~ Increasing direct regional service to Oakland, making it a regional transit hub.
- ~ Establishing efficient linkages to downtown and adjacent technology satellites (i.e., South Side, Pittsburgh Technology Center, Hazelwood, Shadyside, and the West Portal/Uptown area) in the form of frequent and well understood public transit.



Transit plays a key part of living, working, visiting and learning in Oakland.

- ~ Improving connections between adjacent residential neighborhoods and the employment, cultural, medical, and educational opportunities in Oakland.

Given the dense, urban nature of Oakland and its 23,000 daily transit riders, it makes sense to incorporate transit values and considerations in decisions regarding Oakland transportation investments.

Investing In Transit

Why Transit? **Why focus attention and dollars on improving transit service to Oakland? Four reasons – (1) to increase ridership especially among Oakland workers and cultural visitors; (2) to reduce traffic and parking congestion; (3) to serve new areas of Oakland expansion including satellite facilities in Shadyside, the South Side, West Portal area, and Hazelwood; and (4) to improve the overall transit experience for the 23,000 riders depending on and choosing transit.** Increasing transit ridership and enhancing the transit experience will help improve the overall quality of life for Oakland workers, students, residents, and visitors and maintain the competitiveness of Oakland Institutions.

Over the past 10 years there has been a number of **major transit investments that have paid off in terms of increased ridership and improved quality of transit service.** They include the new West Busway, an extension of the East Busway, the reconstruction of the South Hills Overbrook LRT line, and construction of the 1st Avenue LRT station. Design is currently underway to extend the LRT under the Allegheny River to the North Side. All of these investments continued to insure quality transit service and coverage throughout the Pittsburgh region.

In addition, a number of Oakland studies have been conducted over the past 10 years identifying transportation problems and what could be done to correct them. These studies include the City's *1996 Mid-Range Transportation Study* and extend to the recently completed *Strategy 2002 for the Future of Oakland*. Through these studies a considerable amount of discussion took place from which a broad



Transit - A staple of Oakland.

list of ideas were developed regarding transportation needs and opportunities. Much of the discussions were carried over into two recent transportation studies – the *Airport Multimodal Corridor Major Investment Study* completed in April of 2003 and the *Eastern Corridor Transit Study* completed in December of 2003.

The following sections summarize and organize the transit recommendations as they have been identified through past studies of Oakland and transit. The listing is intended to offer a comprehensive list of transit improvements to consider in current deliberations on the future of Oakland and the role of transit in that future. They are also intended to help guide the expenditure of public transportation dollars in and around Oakland.

Investing In Transit - Today: Better Bus Service and Amenities

Making today's bus and shuttle services better is a matter of adjusting frequencies to accommodate overcrowded routes, expanding service to underserved neighborhoods, and improving patron amenities to enhance the overall transit experience.

From *Improving Transit within Oakland* (2002), the following existing service improvements were recommended for consideration:

- ~ Upgrade key stops with weather protection, seating, "smart" information kiosks, and better signage.
- ~ Provide signal priority at key intersections for transit vehicles traveling to and through Oakland.
- ~ Improve customer information.
- ~ Increase service frequencies on heavily traveled routes.
- ~ Expand the number of institutions offering free transit passes to employees and students.
- ~ Establish a visitor's transit pass.
- ~ Expand Park and Ride facilities to encourage fringe parking.
- ~ Improve bus service routes and schedules to Oakland satellite facilities.
- ~ Improve regional transit connections with more direct regional service.
- ~ Increase the clearance of the Eliza Furnace trail overpass on lower Bates Street to accommodate more direct bus service to the South Side.



A proposed site for a new Shadyside Station along the Martin Luther King East Busway.

Also recommended for consideration is a new bus station between Centre and Aiken Avenues along the Martin Luther King, Jr. East Busway serving the Baum-Centre corridor. This station would enhance access between Oakland and UPMC's Shadyside Hospital and Hillman Cancer Center, extending Oakland's function as Pittsburgh's regional medical center into the Baum - Centre corridor.

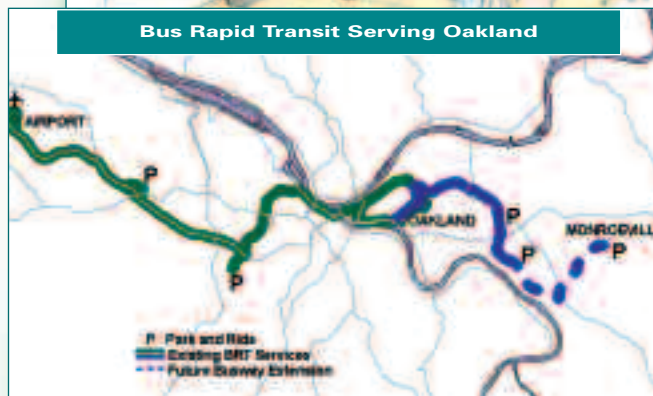
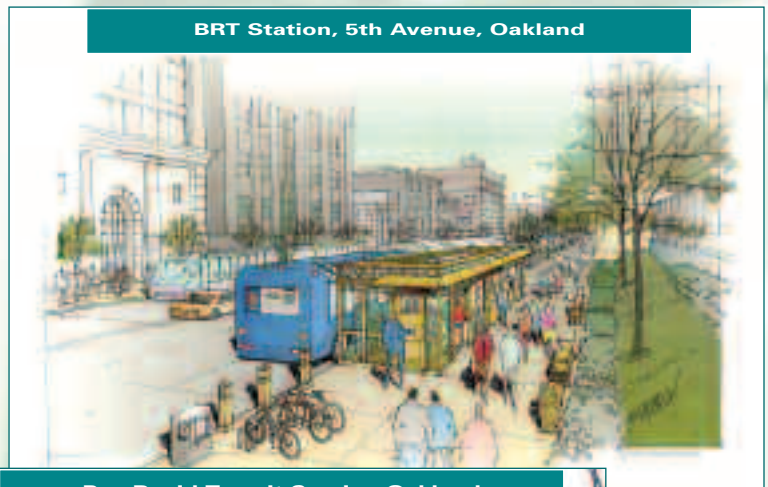
Investing in the convenience, appeal and reliability of existing transit and shuttle operations is the first step in improving transit's contribution to a vibrant and expanding Oakland.

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Investing In Transit - Tomorrow: Bus Rapid Transit Service

On-street bus ridership in the Fifth/Forbes Corridor is approaching capacity. Over 60,000 riders travel the Fifth and Forbes corridor every day. One solution is to pursue Bus Rapid Transit (BRT) service. **BRT is transit service comparable to rail but using rubber tired vehicles on streets.** It is a set of improvements that are appropriate for dense, high traffic urban corridors. BRT offers riders high quality transit service through faster speeds, improved reliability of service, reduced or no interference from other traffic, and enhanced customer amenities. The result is a higher capacity of bus service and improved overall transit experience. Typical characteristics of BRT service include:

- ~ Frequent transit service operating throughout the day;
- ~ Comfortable buses using the latest technologies;
- ~ Enhanced bus stations offering weather protection, real time information, and other passenger amenities;
- ~ Park and ride lots;
- ~ Signal priority for the buses as well as dedicated rights-of-ways;
- ~ Distinctive route and service identification as well as marketing;
- ~ Real time customer information and electronic fare payment systems; and
- ~ Uniquely styled buses with design features similar to LRT vehicles.



A proposed east-west BRT line serving the airport, downtown and Oakland corridor.

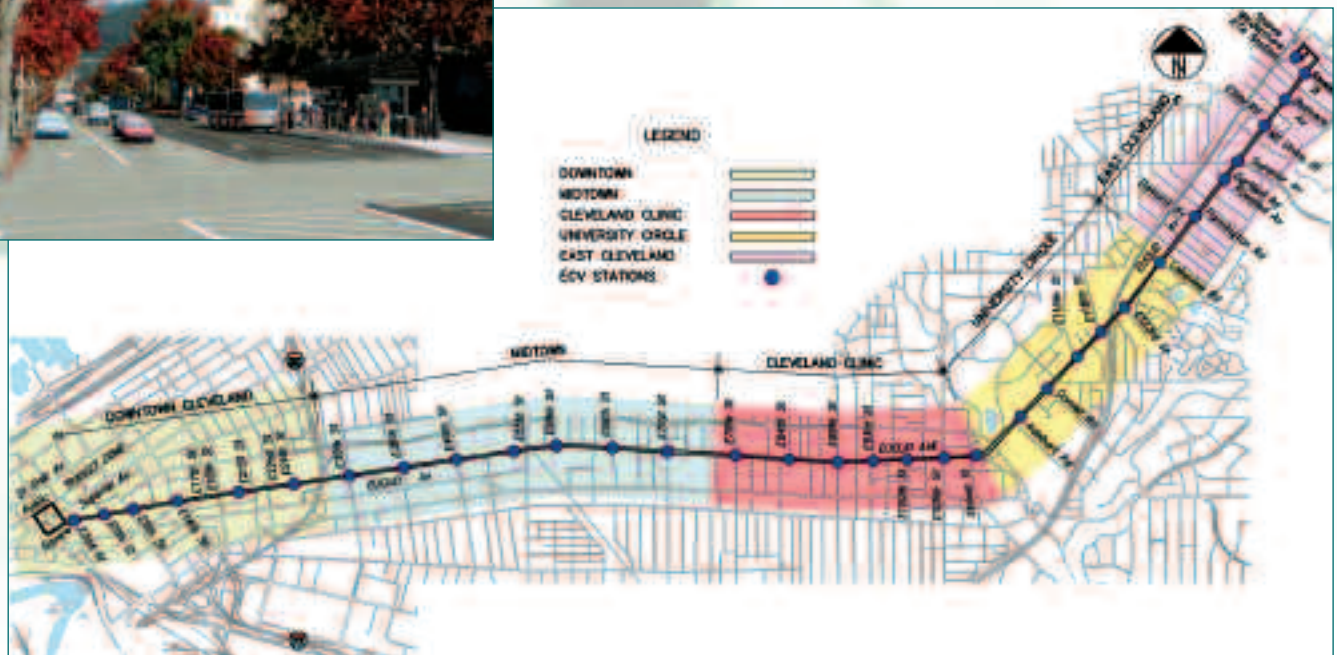
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An east-west BRT system would use the East and West busways with service through downtown and Oakland. **A logical candidate for BRT service is the Port Authority's Route 28X serving Oakland, Downtown and the airport.** It uses the West Busway, serves park and ride lots, utilizes a separate fleet of buses, and has frequent all-day service. Other candidate routes include the 100 Route which uses the West Busway as well as the East Busway (outbound only) and has available park and ride facilities with frequent all-day service; and the EBO routes which serve Oakland from the east connecting with 1,000 new park and ride spaces.

Cleveland is pursuing BRT service along its Euclid corridor between Downtown and University Circle, a 6.7 mile corridor similar to Pittsburgh's Oakland to Downtown corridor. The Euclid Corridor Transportation Project includes exclusive bus lanes, pedestrian enhancements, improved street lighting, traffic signal priority for buses at certain intersections, and special signage to clearly identify the service. Sixty-foot diesel-electric hybrid buses are proposed for this service. Other university communities pursuing BRT are Eugene, OR and Berkley, CA.



Cleveland's proposed Euclid Corridor Bus Rapid Transit project.



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Investing In Transit - Beyond Tomorrow: Rail Transit

Establishing rail transit, whether light rail or some other compatible form of rail service, is the ultimate goal for enhancing transit service in Oakland. There is a limit to the volume of riders an on-street bus system can carry and Oakland is reaching capacity given its presence in a regional transit corridor. Rail transit has a proven record of providing dedicated, on-time and quick service for its patrons. Similar to Bus Rapid Transit, rail service offer riders high quality transit service with dedicated rights-of-ways, enhanced speeds, improved reliability, minimized

interference from other traffic, and improved customer amenities. Light rail stations and guideways increase the visibility and understandability of the transit service and can serve as nodes for redevelopment.

The challenge in Oakland is alignment. Studies to-date have focused attention on the Fifth and Forbes corridor, but the cost of a subway alignment between downtown and Oakland is estimated at \$1.5 billion and the space available for an at-grade alignment is extremely limited.



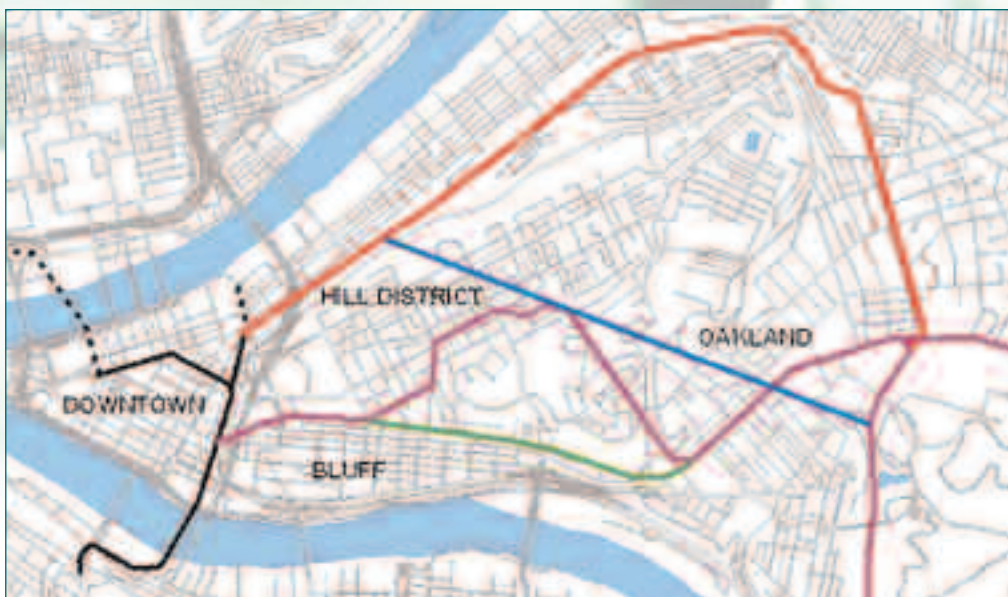
Fifth and Forbes are Oakland's through transit corridors with over 60,000 riders a day. They have also been studied as potential LRT alignments including both at-grade and subway.

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Another alternative for Oakland rail service would be to use the CSX rail corridor which extends from Lawrenceville through Schenley Tunnel (under Neville Street) and Junction Hollow to Hazelwood. This railroad line could be utilized by railcars operating on the existing tracks (such as the **Colorado Diesel Mobile Unit**) or, if Amtrak and freight train operations on this line cease, it could be converted to an LRT line. Although this alignment does not serve Oakland's core, it offers north-south connections from downtown to the Strip District, Lawrenceville and Hazelwood.

In December 2003, SPC, Port Authority and Westmoreland County Transit Authority completed the Eastern Corridor Transit Study. This analysis considered opportunities for major transit investments

in the eastern sector of the Pittsburgh region including **LRT linkages between Downtown, Oakland and other eastern communities.** The study recommended further consideration of an LRT extension from downtown, through the Hill District to Oakland and to Homestead with the latter segment utilizing the CSX right-of-way. Other options have been suggested such as an alignment along Colwell Street and to implement the project in phases in order to manage construction costs. In addition, the city has discussed a deep tunnel option from the Strip District under the Hill District and Oakland to Junction Hollow. The next step would be to conduct an Alternatives Analysis and Draft Environmental Impact Statement which would also include an extension of the LRT from downtown to the airport.



Four alternative LRT alignments between Downtown and Oakland are on the table for consideration – one Strip District (red) alignment, two Hill District alignments (maroon and green), and a combination Strip District and Hill District deep tunnel alignment (blue).

An Agenda For The Future of Transit in Oakland

Pursuing better transit service for Oakland begins today with investments in the existing bus service and evolving those investments toward Bus Rapid Transit (BRT) Service. Both need and opportunity exist today to advance a transit agenda for Oakland, an agenda that will further Oakland's role as a vibrant neighborhood and regional institutional center. Accordingly, the following are recommended as part of an Oakland 2005 transportation agenda.

Go Transit: Dedicated State Funding to Transit –

Fundamental to any improvement in transit service for Oakland is establishing a permanent and sufficient revenue stream for the Port Authority's operations. Currently under consideration are two identical bills in Harrisburg – Senate Bill 1162 and House Bill 2697. Both bills propose dedicating 3.21% of the state's sales tax to support transit service operations. This additional revenue could add \$64 million to the Port Authority's annual budget. Legislative action is critical this fall. **It is recommended that the Oakland leadership lobby their state delegation for support of these two bills.**

Go Surface: Bus Rapid Transit –

Both the Airport Major Investment Study and Eastern Corridor Transit Study recommend further study of Bus Rapid Transit (BRT) service in the Airport-Downtown-Oakland corridor. In addition, the 28X, EBO and 100 routes already have some BRT features. **To advance this recommendation, it is proposed that the Oakland Task Force work with the Port Authority to more fully develop the concept of BRT service as it applies to the existing 28X, EBO or Route 100 services.** Once these concepts are identified, the Task Force would continue to work with the Port Authority to prioritize implementation and pursue the necessary funding.

Go People: Forbes Avenue Bus Stop Amenities –

To improve the overall transit experience in Oakland along Forbes Avenue there is a critical need to improve bus stop designs and amenities. The Oakland Transportation Management Association (OTMA) with the support of the University of Pittsburgh has applied for a Forbes Avenue streetscape improvement grant from PennDOT's Hometown Streets and Safe Routes to School Program. This presents an opportunity to incorporate into the streetscape enhanced bus stop designs and amenities. **It is recommended that the Oakland leadership investigate alternative local funding sources to provide the necessary \$250,000 in matching funds and lobby their state delegation and PennDOT for awarding the Forbes Avenue Hometown Streets grant of \$1,000,000.**

Go to Shadyside: New Shadyside Busway Station –

The next step in advancing consideration of a new Shadyside East Busway Station is to conduct an Environmental Assessment and develop schematic designs and costs. This is the first step in pursuing federal funding for station engineering and construction. The cost of the assessment and schematics is \$250,000, \$50,000 from local sources and \$200,000 from federal sources. **It is recommended that an Oakland partnership be formed to raise the needed \$50,000 in local funds and to pursue the matching \$200,000 in federal funds.** Having an Environmental Assessment in place along with schematic designs and costs is the first step in lobbying for the remaining engineering and construction dollars estimated at \$6.0m.

Report Sources :

The following sources provided information in the drafting of this report:

City of Pittsburgh's Policy Paper, Oakland Mid-Range Transportation Study (1996); Southwestern Pennsylvania Planning Commission, Cycle VII Forecasts; Port Authority of Allegheny County; Strategy 2002 for the Future of Oakland, Prepared by Urban Design Associates (2002); Department of City Planning, City of Pittsburgh; Oakland Planning and Development Corporation; University of Pittsburgh, Parking Transportation Services; Carnegie Mellon University; University of Pittsburgh Medical Center; Allegheny Conference on Community Development; University of Pittsburgh Medical Center, Security and Parking; Trans Associates; Airport Corridor Transportation Association; Oakland Transportation Management Association

Oakland Task Force

Carlow University
Carnegie Mellon University
Carnegie Museums of Pittsburgh
Carnegie Library of Pittsburgh
Children's Hospital
City of Pittsburgh
Community Health Services Corporation
Magee-Womens Hospital
Oakland Business Improvement District
Oakland Community Council
Oakland Planning and Development Corporation
Oakland Transportation Management Association
Phipps Conservatory & Botanical Gardens
Pittsburgh Board of Public Education
Pittsburgh Parks Conservancy
Pittsburgh Playhouse of Point Park University
Port Authority of Allegheny County
Public Parking Authority of Pittsburgh
Regional Industrial Development Corporation
University of Pittsburgh
Western PA School for the Blind Children

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