DEPARTMENT OF COMMUNITY DEVELOPMENT SERVICES

Planning Division

m e m o r a n d u m

TO: **Bruce K. Walden, Chief Administrative Officer**

FROM: Elizabeth H. Tyler, AICP, Director

DATE: March 6, 2003

SUBJECT: Resolution of support of the Champaign-Urbana Mass Transit District's continued exploration of the benefits of a fixed-guideway or tram system for the community and the completion of an Alternative Analysis Study.

Introduction

The Champaign-Urbana Mass Transit District (CUMTD) is currently conducting an Alternatives Analysis study to determine the costs and benefits of a "fixed-guideway" system for the core areas of the Champaign, Urbana and University of Illinois. The CUMTD has contracted with The Washington Group to complete the Alternative Analysis Study and submit a project proposal to the federal government under the Section 5309 New Starts Program.

The purpose of this memorandum is to offer a brief background on the Alternative Analysis Study and to outline general support of the study through a Council Resolution.

Background

Purpose of the Alternative Analysis Study
The purpose of the study is to determine the costs and benefits of a fixed-guideway system that would link downtown Urbana, campus and downtown Champaign. MTD has established three primary goals of the study which include improving the cost efficiency of the transit system, increasing transit usage, and meeting Champaign, Urbana and the University of Illinois improvement goals. The study area for the project covers five square miles, bounded by University Avenue on the north, Windsor Road on the south, Vine Street on the east and Neil Street on the west. The study will determine a Locally Preferred Alternative which will specify the type of system and route that should be implemented. The Locally Preferred Alternative will be submitted to the Federal Transit Administration for evaluation and consideration under the 5309 New Starts Program. The project may then be eligible for preliminary engineering and

design funding. Federal funding for new starts are typically very competitive considering the amount of funding available compared to the number of new start applications submitted.

The majority of the consulting work being contracted by the CUMTD is being performed by New York based Washington Infrastructure Services, Inc. in association with Systra Consulting. It is expected that an application for funding will be submitted by July of 2003.

Federal Funding Criteria
The Federal Transportation Administration has developed a system of criteria for rating new start applications. While the rating does not solely determine whether or not a project will get funding, receiving a favorable rating is crucial to the success of the application. The criteria used includes:

1. **Mobility Improvements**
   Travel time savings
   Low income households served
   Employment new stations

2. **Environmental Benefits**
   Change in pollution emissions
   Energy consumption
   Current Air Quality designation

3. **Operating Efficiencies**
   Change in operating cost/passenger mile

4. **Cost Effectiveness**
   New cost per new user benefits
   New cost per new passenger

5. **Land Use Issues**
   Existing uses, transit supportive plans and policies

Discussion

Local Participation in the Study
The CUMTD has established a Technical Advisory Committee to review the work of the consultant and offer input on the study. The committee consists of delegates from both Cities, the County, the University and other interested parties. Some members of the Technical Advisory Committee have participated in two trips to study fixed-guideway systems in Portland, Oregon and various cities abroad. A presentation on those experiences was given at the February 10, 2003 Urbana City Council meeting. To date, there has been limited City staff time dedicated to the study outside of participation on the Technical Committee.

Next Steps
The CUMTD is currently working with the Washington Group to organize a series of community input meetings in April to get public reaction to the alternatives. It is anticipated that workshops will be held in mid to late April. The CUMTD and the Washington Group is also working on promotional information that can be distributed to help educate the public about the process and project alternatives.

Local Support
A major consideration for funding will be local support for the project. At this early stage of the process, local governments have offered general support of the CUMTD's exploration of this alternative although there has been no commitment to funding at this point. In November of 2002 the Champaign City Council took a straw vote and approved general support of the study. The Champaign-Urbana Urbanized Area Transportation Study Technical Committee also decided to support the study and considered amendment the Transportation Improvement Program to include the feasibility study for "illustrative" purposes.

In February 2002 the Urbana City Council adopted the Downtown Strategic Plan which outlined strategies to revitalize the downtown area and encourage the creation of a "downtown neighborhood". The plan briefly mentioned the need to consider an alternative transit system to link downtown to campus. Considering that the project could bring redevelopment benefits to the community and specifically downtown Urbana, a resolution of support for the MTD's exploration of the feasibility for a fixed-guideway system is proposed for Council action.

Fiscal Impact to Urbana
The proposed resolution does not make any present or future funding commitments from the City of Urbana for a potential fixed-guideway system. The resolution simply supports the CUMTD exploration of the concept based on the findings that the concept could have a positive impact to downtown Urbana and the community as a whole.

Recommendation

Staff recommends that the Urbana City Council adopt the attached resolution supporting the exploration of the Alternatives Analysis Study.

Prepared by:

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Rob Kowalski, AICP, Planning Manager

Attachments: Proposed Resolution

Facts about the benefits of Transit

c: Bill Volk, Champaign-Urbana Mass Transit District
Steve Gazillo, The Washington Group
Ruby Siegel, Systra Consulting

Resolution No. 2003-03-004R

Resolution of support of the Champaign-Urbana Mass Transit District's continued exploration of the benefits of a fixed-guideway or tram system for the community and the completion of an Alternative Analysis Study.

WHEREAS, the Champaign-Urbana Mass Transit District is currently conducting an Alternatives Analysis Study to consider the feasibility of a fixed-guideway or tram system to enhance the current transit system; and

WHEREAS, the City of Urbana is currently participating on the Mass Transit District Fixed Guideway Technical Committee regarding the study and has participated in the exploration of fixed-guideway systems in other communities; and

WHEREAS, the MTD has identified three primary goals of the Alternative Analysis Study which are to improving the cost efficiency of the transit system, increasing transit usage, and meeting the redevelopment goals of the community; and

WHEREAS, the Alternative Analysis Study will further explore the feasibility of a fixed-guideway system and identify a locally preferred alternative for the community which could include trams, bus rapid transit, or an enhanced conventional bus system; and

WHEREAS, a fixed-guideway system could have significant benefits for the residents of the City of Urbana by offering increased mobility and fostering redevelopment of the downtown; and

WHEREAS, the consideration of an alternative transit system connecting downtown to campus was a component of the Downtown Strategic Plan adopted in February 2002; and

WHEREAS, public transportation is a vital contributing factor for the health of the community because it provides mobility for all segments of the population and reduces dependency on the automobile; and

WHEREAS, an improved public transit system is a benefit to all community members including transit riders, motorists, cyclists and walkers by diversifying transit options, easing congestion on city roadways, and making streets safer for cyclists and pedestrians;

WHEREAS, public transportation, and fixed-guideway systems, can be a vital economic development tool by fostering urban revitalization which can provide numerous benefits such as the establishment of new businesses, industry and housing, job creation and improved access to employment centers; and

WHEREAS, public transportation, and fixed-guideway systems, offer mobility for disadvantaged residents and support self-sufficiency especially trams that feature "zero step" access; and

WHEREAS, public transit, specifically electric powered trams, offers substantial environmental benefits such as cleaner air and a reduced dependence on fossil fuels.

NOW, THEREFORE BE IT RESOLVED, that we, the members of the City Council of the City of Urbana; hereby support the Champaign-Urbana Mass Transit District's continued exploration

of fixed-guideway systems and the completion of the Alternatives Analysis Study which will further identify the benefits of fixed-guideway systems for the community; and

BE IT FURTHER RESOLVED that a copy of this resolution, duly adopted, shall be sent to the Champaign-Urbana Mass Transit District, the City of Champaign and the University of Illinois.

PASSED by the City Council this _____ day of March, 2003

_____
Phyllis D. Clark, City Clerk

APPROVED by the Mayor this _____ day of March, 2003

_____
Tod Satterthwaite, Mayor

Interesting facts and figures about public transit in the U.S.

Did you know that investments to public transit systems routinely have major economic development paybacks to communities undertaking them? **The return to a community on public transit investments can run as high 4 to 9 times the amount of the investment** by spurring major new economic development projects, increasing livability in communities, broadening the economic base of the community, and providing people with better access to more jobs.

Did you know that in the year following public transit upgrade investments, **as many as 314 jobs can be created for each $10 million spent in transit capital funding**? As many as 570 jobs can be created in the local economy for every $10 million invested.

Did you know that on average, **state and local governments can realize a 4-16% gain in revenues due to the increase in income and employment generated by investments in transit**?

Did you know that an estimated **94% of welfare recipients attempting to move into the workforce don't own cars** and rely on public transportation?

Did you know that **it costs approximately $5,510 to drive a small car in a year and as much as $10,508 for a large car in a year**, depending on mileage driven?

Did you know that **approximately one quarter of the nation does not have access to, is unable to utilize their own automobile?**

Did you know that estimates place the **unemployment rates among persons with disabilities at more than 75%, many for lack of *effective* transportation?**

Did you know that while **transit is clearly a boon to the people who use it, even larger benefit accrue to motorists, businesses, and society in general?** Transit makes roads work better, it plays a key role in helping our cities, states, and country be more competitive in the marketplace, transit makes Americans more productive, it creates jobs, and it makes our cities better places to work, do business, and go to

school. In those areas where strategic investments in transit have been made**, ridership has grown, and the economic benefits to those communities have risen**.

Did you know that in areas like Portland, St. Louis, and Chicago, where substantial improvements have been made in transit services, the market has responded: **ridership has shot up as transit captures a larger share of the "choice rider", i.e., people with cars?** (For example, in Oregon, since the opening of its MAX line in 1987, total transit ridership is up nearly 35%. Their bus ridership also shot up by nearly 34%. In St. Louis, with the new opening of the MetroLink line in the 90's, bus ridership climbed for the first time in a decade. Smaller urban and more rural areas also experience similar effects, with ridership increasing as much as 105% in Fort Myers, Florida with an upgraded public transit system).

Did you know **community transit system upgrades promote numerous aspects of economic development**, including:

- creating jobs by attracting employers to areas that are accessible to more people,
- strengthening local businesses by giving them access to workers and to a wider market,
- empowering workers by enabling transportationally disadvantaged people to reach jobs and become productive members of society,
- getting workers to opportunities for training and self-improvement to make them more productive,
- supporting spin-off industries such as maintenance facilities and computer software development,
- enabling elderly people (a fast growing segment of the population) to remain independent by providing access to health care, shopping, nutrition programs, and other basic life needs.

Did you know that in St. Louis, **more than 80% of MetroLink riders come from households with at least one car, and more than 50% have two cars or more?** Other cities cite similar car ownership numbers among their transit riders.

Did you know that in St. Louis, **the MetroLink light rail system carries 40,000 people per day, more than 300% more than had been predicted by planners?**

American Public Transportation Association

Summary

What is Public Transportation?

Public transportation includes all multiple-occupancy vehicle services designed to transport customers on local and regional routes. These services are: private and public buses; rail; ferryboats; Amtrak, intercity bus, and taxi services operated under contract to a public transportation agency; any vanpool service operated by or under such a contract; and other transportation services for senior citizens and persons with disabilities.

Public Transportation's Customers

How many people use public transportation? In 2000, Americans took 9.4 billion trips using public transportation, an increase of 2.1% more than the previous year, outpacing growth in other travel modes. In 2000, public transportation ridership increased for the fifth straight year. This level of usage amounts to an increase of over 20% since 1995. The equivalent of almost a million new trips on public transportation were added each day in 2000.

APTA estimates that about 14 million Americans ride on public transportation each weekday. The U.S. Department of Transportation estimates another 25 million use public transportation less frequently but on a regular basis. Within any given two-month period, nearly 12% of the national population uses public transportation, according to the 1995 National Personal Transportation Survey (NPTS). In the largest U.S. cities, 21% of the public or 28 million people use public transportation at least once in a typical two-month period. Ridership is also highest in large cities, during peak travel periods and for work trips.

Why do people use public transportation? Public transportation provides opportunities for people from every walk of life by making transportation choices and options available. Public transportation provides people with easy access to services and places important in everyday life. Access to public transportation gives people mobility, choice and freedom to accomplish what is important to them.

Where do people go on public transportation? According to APTA data, work is the most popular destination with 54% of all trips ending at workplaces. Next, 15% of trips go to schools; 9% to shop; 9%, social visits; and 5.5%, medical appointments.

As the type of the trip varies on public transportation, so does the average distance traveled. Vanpool customers take the longest trips (34.6 miles). Next, commuter rail, 22.8 miles;

demand response, 8.0 miles; ferryboat, 6.2 miles; heavy rail, 5.3 miles; light rail, 4.2 miles; bus, 3.7 miles; and other modes, 1.6 miles or less.

Many different types of people ride public transportation. Data collected by APTA shows the diversity of public transportation's customers. People age 65 and older represent 7% of riders; 18 years and under, 10%; women, 52%; White, 45%; African-American, 31%; Hispanic, 18%; and Asians and Native Americans, 6%.

Public transportation users come from all household income levels. The majority of passengers fall in the income range of $15,000 to $50,000; below $15,000, 27%; more than $50,000, nearly 20%.

The U.S. Department of Transportation's 1995 National Personal Transportation Survey estimated that 8 million of the 100 million U.S. households did not own a car, truck, van, motorcycle, or motor scooter. An additional 30 million households owned only one vehicle.

Public Transportation Modes

Modes are different ways to get around on public transportation. Road modes include bus, trolleybus, vanpool, jitney, and demand response service. Rail modes include heavy rail, light rail, commuter rail, automated guideway transit, inclined plane, cable car, monorail, and aerial tramway. Water modes include ferryboat. An explanation of each mode is found in the definitions section.

Number of Providers

Approximately 6,000 public transportation systems operate in the U.S. and Canada. The majority of these agencies operate more than one mode of service. An estimated 2,250 agencies provide bus service, 5,200 operate demand response service, and 150 operate other modes. Two-thirds of U.S. public transportation agencies provide service designed to meet the needs of senior citizens and persons with disabilities. Also, many agencies typically contract service with private operators, further increasing the number of total public transportation providers.

Fixed Guideways

Rail service operates on a separate right-of-way known as a fixed guideway. Rail fixed guideway route mileage is divided among commuter rail (4,181 miles), heavy rail (1,332), light rail (481), and other modes (27).

In 2001, 22 miles of commuter rail, 151 miles of light rail, 24 miles of heavy rail, and 9 miles of automated guideway were under construction.

Bus services on restricted busways and high-occupancy-vehicle lanes and trolleybus services are also fixed guideway services.

In 2000, 1,004 route miles of bus fixed guideway were in operation at all times, and another 687 operated only part of the day. For trolleybus, 4 miles operated at all times, and 465 part of the day.

By law, ferryboat services are also considered fixed guideway—there are over 400 route miles of ferryboat service.

The Public Sector's Investment in Public Transportation

In fiscal year 2001, the fourth year of funding under the Transportation Equity Act for the 21st Century (TEA-21), the federal investment in public transportation is $6.3 billion. TEA-21 funding provides the federal resources to ensure that public transportation remains safe and in good condition. Financial support by federal, state and local governments also helps people make a choice among travel modes. Public expenditures to operate, maintain and invest in public transportation systems in America amount to $15.4 billion each year, according to the 1997 study "Dollars and Sense: The Economic Case for Public Transportation in America," by the Campaign for Efficient Passenger Transportation. These expenditures have a positive and high return on the public investment made by taxpayers. The study reports that the estimated mobility and efficiency benefits of public transportation have a value between $62 billion and $78 billion annually, increasing the economic return on the public's dollars by nearly six times the total annual investment of $15.4 billion (1995 dollars).

But unmet needs still exist in public transportation. According to the U.S. Department of Transportation, in today's dollars, $17 billion is needed annually to maintain and improve performance of the nation's transit systems.

Growing Investment Needs

The nation's transportation systems are showing signs of stress. In early 2001, the American Society of Civil Engineers (ASCE) released a "report card" on the nation's infrastructure. Since 1998, the last year ASCE issued the report card, public transportation received a reduced grade, or a "C Minus" from a "C." The ASCE report finds that improvements to transit bus and rail facilities are not keeping up with the strain placed on transit systems by increased ridership. In addition, the report predicted that transit is expected to experience the sharpest growth of any form of transportation this decade. The ASCE report also finds that spending on public transportation must increase by 41% to maintain current conditions.

What it Costs to Operate Public Transportation

Public transportation funds come from two main sources, capital and operating. Capital funds are used to finance infrastructure needs such as new construction and rehabilitation of existing facilities. The federal government contributes 47% of all capital funding for public transportation. Up to 80% of the total capital cost may be federally-funded. The balance is typically paid for by a combination of state and local funds; many state and local governments provide more than the required minimum 20% of matching funds. In many cases, capital projects are financed solely by state and local funds. Public transportation agencies raise 27%

of capital funds from taxes levied by the transportation system, tolls, fees, and non-governmental sources. States contribute 11%; local governments, 15%.

In 2000, public transportation received a total of $9.6 billion in capital funds from all sources. Bus-related projects received 49%; fixed guideway modernization, 30%; new start transit projects, 1%, and 2% for planning.

Operating funds provide income for operational expenses. Most operating funds originate from local sources (74%). Passenger fares pay for 36% of operating expenses, local governments contribute 22%, and non-governmental sources and taxes levied by the transportation system, tolls and fees, 17%. State and federal governments contribute 21% and 4%, respectively.

In 2000, an adult passenger paid an average of $1.13 in base cash fare when riding on public transportation. Zone and other surcharges increase the amount paid in many areas. Because children, senior citizens, and persons with disabilities usually ride free or at half-fare, and others use discounted passes and tickets, the average fare for an unlinked or single trip is often less. For example, passengers pay $0.50 for trolleybus, $0.57 for light rail, $0.77 for bus, $0.94 for heavy rail, $1.64 for demand response, and $3.32 for commuter rail.

It takes regular capital and operating investments to keep public transportation on the move. Capital expenses represent money set aside for infrastructure and rolling stock and their renovation and replacement, plus planning, design, land acquisition and related costs. In 2000, public transportation invested $9.6 billion in capital needs. Facilities cost 56%; vehicles, 33%; and equipment and services, 11%. Of these categories, heavy rail expenses accounted for 30%; bus, 34%; commuter rail, 19%; and light rail, 13%.

In 2000, public transportation spent $22.6 billion on operating expenses. Salaries and wages cost 46%; fringe benefits, 24%; purchased transportation, 12%; and fuel and supplies, 10%. Services, utilities, insurance and other costs fill out the operating expense list. Of the money used to operate and maintain the vehicles used in revenue service, scheduling and operation of revenue vehicles represent 45%; vehicle maintenance, 19%; non-vehicle maintenance, 10%; purchased transportation, 12%; and 14%, general administration.

Employees

In 2000, the nation's 358,000 public transportation employees provided services to the highest levels of passengers since the inception of the federal transit program. These employees operate, maintain and manage all modes of public transportation. The majority of employees, or 61%, work in bus service, followed by 15% in demand response, 14% in heavy rail, and 7% in commuter rail.

A full 64 % of the total number of public transportation employees serve as operators or conductors on board vehicles, and other vehicle operations employees. Vehicle maintenance personnel are 18%; non-vehicle maintenance, 9%; and administration, 10%.

In addition, an estimated 10,000 - 20,000 professionals work under contract to public transportation systems or are employed by engineering firms, manufacturers of public transportation equipment, consultants, local governments and private businesses.

Vehicles

The public transportation fleet is comprised of 131,000 vehicles in active service. Of this number, buses represent 58%; demand response vehicles, 25%; heavy rail cars, 8%; commuter rail cars, 4%; light rail cars, 1%; and all other modes, 5%.

The age of vehicles varies by mode and by each agency that operates them. The average age for buses is 6.9 years; demand response vehicles, 2.6 years; commuter rail vehicles, 20.4 years; heavy rail vehicles, 22.5 years; and light rail vehicles, 17.9 years.

The length of vehicles varies by mode. For example, although the standard length of a bus is 40 feet, vehicles range from 15 to 65 feet long. The average length of a bus is 39.3 feet; demand response vehicles, 21.5 feet; commuter rail cars, 85.0 feet; heavy rail cars, 61.4 feet; and light rail cars, 72.8 feet. Vanpool vehicles are more compact at 17.4 feet. Ferryboats are the longest at 235.6 feet.

Energy Consumption

In 2000, public transportation vehicles used nearly 889 million gallons of fossil fuels and 5.5 billion kilowatt-hours of electricity, less than 1 % of all energy consumed in the U.S.

Among fossil fuels, diesel ranked as the highest consumed at 88%. Top users of diesel fuel are buses, 81%; commuter rail at 9%; demand response, 6%; and ferryboats, 4%. Among the non-diesel fuels, vehicles also used fossil fuels such as gasoline (29%), compressed natural gas (53%), propane (5%), and liquified natural gas (12%).

Most electricity, 64%, is consumed by heavy rail vehicles; commuter rail, 25%; and light rail, 8%.

Benefits of Public Transportation

Public transportation benefits the quality of life in communities across the country by providing safe, efficient and economical transportation service. Importantly, public transportation is also a vital component for a healthy economy. While public transportation benefits the people who use it, society in general benefits from its availability. Investing in public transportation:

Saves Money: For most people, public transportation saves money. It is more cost efficient to use public transportation, especially to the central business district of an urban area.

The American Automobile Association in 2001 estimated annual costs for driving a single-occupant vehicle at $5,510 for a small car and as high as $10,508 for a large car, depending on mileage driven.

Annual costs for public transportation may range from $200 to $2,000 depending on mileage traveled and include transfer, distance or zone, time-of-day, express, and parking charges.

A 1999 study, "Public Transportation and the Nation's Economy," by Cambridge Systematics, Inc., estimated that for every $10 million invested in public transportation, more than $15 million is saved in transportation costs to both highway and public transportation users. These include operating, fuel and congestion costs.

Creates Jobs: The public transportation industry creates jobs for the nation's economy. In addition to the 350,000 people directly employed by the public transportation industry and thousands of others employed in the directly related engineering, construction, manufacturing and retail industries, other jobs are created. For every $10 million invested in capital projects for public transportation, more than 300 jobs and a $30 million gain in sales for business are realized, according to the 1999 Cambridge Systematics study.

Provides Access to Jobs: During the 1990s, federal and state governments took steps toward moving people off welfare and into the workforce. At the same time, a healthy economy has created thousands of new jobs. Transportation is a key force in moving former welfare recipients into the workforce as permanent wage earners. APTA's 1999 Access to Work Best Practices Survey reveals that an estimated 94 % of welfare recipients attempting to move into the workforce do not own cars and rely on public transportation.

Under the current $75 million federal access to jobs initiative, public transportation systems around the nation cooperatively work with state and local social service agencies to coordinate services to identify and assess mobility needs and to improve employment accessibility in their region. These new and expanded services will provide access to jobs for 8 million households without a car. TEA-21 guarantees $500 million for these programs for a five-year period.

Stimulates Economic Development: New analysis confirms the important and positive economic impact of public transportation investment on new development and business revenues. The Cambridge Systematics study estimated that each $10 million in capital investment yields $30 million in increased sales, while each $10 million operating investment yields $32 million. The net return on the public investment is as high as six to one.

Ease Traffic Congestion: Public transportation helps to alleviate the crowded conditions on our nation's increasingly crowded network of roadways. The amount of time car drivers spent

stuck in traffic is 36 hours in a year according to the 2001 Texas Transportation Institute (TTI) Annual Urban Mobility Report. Also, drivers in half of the cities studied spent at least half as much time stuck in traffic as they did on vacation each year. These findings apply to small-to-medium sized cities as well as larger metropolitan areas.

The answer to more congestion is not building more roads. If adding more roads represented the only option, each of the cities in the TTI study would require an average of 39 more lane miles to keep pace with one year of increased traffic demand.

More Americans perceive traffic congestion as a growing problem. Recent public opinion polls suggest that nearly half of Americans believe that traffic is a serious problem where they live, especially among suburban residents. Most people (57%) do not feel their commute will get better over the next three years, and nearly a quarter (24 %) feel they will spend more time commuting, according to recent public opinion polls. (Transit Cooperative Research Program Report #63, "Enhancing the Visibility and Image of Transit in the United States and Canada")

Fosters More Livable Communities: Public transportation is a catalyst to strengthen community life through partnering with cities, small towns, and rural areas. These partnerships create transportation systems that enhance the quality of life. Public transportation's successful partnerships with communities bring together both the goals of transportation systems and the livability goals of communities, according to a Project for Public Spaces, Inc., report "How Transportation and Community Partnerships are Shaping America." Public transportation facilities and transportation corridors are "natural focal points for communities" for economic and social activities that help create strong neighborhood centers that are more economically stable, safe, and productive. These are areas where people can drive less or walk. When commuters ride public transportation or walk, face-to-face contact with neighbors tends to increase, which works to bring a community closer.

In the recent "Transportation for Livable Cities" by Vukan R. Vuchic, Professor of Transportation at the University of Pennsylvania, the author dispels the myth that automobile-based transportation provides freedom of choice and maximum mobility. The availability of public transportation in a community provides mobility and accessibility for all people, according to Vuchic. Transportation systems in urban areas with integrated, multimodal transportation options provide more trip choices and increase the ability to travel between activities. Vuchic believes that the ability to travel in an area conveniently, without a car, is an important component of an area's livability.

Boosts Real Estate Values: Public transportation fuels local development and in turn impacts local property values. For example, in the case of developments near the light rail system in Dallas, Texas, a 1999 University of North Texas study found that taxable values of properties located near Dallas Area Rapid Transit (DART) stations jumped by 25 % between 1994 and 1998, as compared to values in neighborhoods not located near rail stations.

Improves Air Quality: Public transportation enables people to conserve energy and promote cleaner air. A 1996 FTA study reports that each year, America's public transportation use avoids the emission of more than 126 million pounds of hydrocarbons, a primary cause of smog, and 156 million pounds of nitrogen oxides, that can cause respiratory disease. Public transportation vehicles help reduce air pollution. For every mile traveled, less pollutants are emitted than by a single-passenger automobile. For example, buses emit 80 % less carbon monoxide than single-occupant automobiles and rail transportation emits almost no carbon monoxides. Public transportation also reduces auto-fuel consumption by 1.5 billion gallons annually, according to the FTA study. Some transit systems around the country are reducing reliance on diesel fuel for their bus fleets and investing in compressed national gas vehicles, buying low- sulfur fuel-burning buses or planning a switch to diesel-electric hydrid buses. Other systems are replacing aging diesel buses with new ones to reduce emissions.

Reduces Energy Consumption: Public transportation can significantly reduce dependency on gasoline. For example, switching to public transportation, a person commuting 60 miles each way on a daily basis, using a car that travels 15 miles per gallon (m.p.g.) could save an estimated 1,888 gallons of gasoline each year. At 30 m.p.g, the savings amount to 944 gallons.

For a 40-mile trip, 1,259 gallons would be saved at 15 m.p.g. or 629 gallons at 30 m.p.g. Even switching to public transportation for a shorter 5-mile commute each way can save 157 gallons at 15 m.p.g. or 79 gallons at 30 m.p.g.

Ensures Safety: Public transportation continues to be one of the safest modes of travel in the U.S. Safe travel is a high priority of public transportation systems, federal, state and local governments and APTA. According to the National Safety Council, riding a transit bus is 91 times safer than car travel. By train, customers are 15 times safer than traveling by car.

The public transportation industry and APTA continue to promote partnerships in safety. During 1999-2000, a record 53 public transportation systems participated in the rail, commuter rail or bus safety audit programs offered by APTA. These comprehensive programs are designed to examine every area of operations to ensure the safety of public transportation passengers.

Why Is Public Transportation So Safe?

* Transit vehicle operators are highly trained to drive defensively and anticipate potential safety problems.

* Public transportation vehicles are generally much larger and more substantially built than personal automobiles or vans.

* Most people on rail cars and busways travel on separate rights-of-way. Light rail, commuter rail and cable cars encounter grade crossings, many of which are protected by crossing gates.

* Passengers ride approximately 3-4 feet above the ground, offering protection from the most common area of impact.

Enhances Mobility During Emergencies: During many types of crisis conditions, including bad weather, people rely on public transportation as a valued service. For example, in 1998, when a tornado made an unprecedented visit to Nashville, TN, public transportation services helped with evacuations and emergency transportation. Also, in 1998, public transportation provided invaluable service in the Daytona Beach, Florida area when parts of Volusia County were ravaged by wildfires. Public transportation vehicles operated around the clock to transport firefighters to the site of the wildfires; to evacuate nursing homes, adult day care facilities, and hospitals; and to bring out-of-town firefighters from the airport.

More recently, local transit systems across NC offered direct assistance to the victims of Hurricane Floyd in September 1999, by evacuating and rescuing hundreds of residents during and after the hurricane. In August 1999, Calgary Transit provided immediate and vital assistance to evacuate residents of southeast Calgary when a nearby oil recycling plant was consumed by fire after more than 40 explosions erupted at the site. In November 1999, the Mass Transportation Authority of Flint, MI successfully evacuated residents and employees of a senior citizens housing complex after a gas explosion destroyed the facility. In September 2001, NY and NJ transit systems helped evacuate hundreds of thousands of people from Manhattan after terrorist attacks.