

# Transportation Issues

City Green Task Force  
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# Concurrency

- Required by Florida's 1985 Growth Management Act.
- Mandated that new development is not to proceed unless infrastructure capacity (including roads) and specific urban services are in place to service new development “concurrently” with the impacts of the development.

# Traffic Level of Service (LOS)

- Describes operational conditions for roads. In Florida, it typically ranges from LOS A (less traffic) to LOS F (more traffic).
- In Florida, local governments are required to adopt a LOS in their Comprehensive Plan. A roadway is officially considered “over capacity” if traffic volumes exceed the roadway’s LOS.
- West Palm Beach has an adopted LOS of E for City Roads. Palm Beach County has an adopted LOS of D for County Roads.
- *Traffic Concurrency Exemption Areas (TCEAs)*: State legislation allowing exemptions from traffic concurrency for selected areas (e.g. downtowns, redevelopment areas).
- *Constrained Roadway at a Lower Level of Service (CRALLS)*: County regulation allowing for a lower level of service for specific roads that cannot be widened (are “constrained”).

# Florida House Bill 697 (2008)

- Required Comprehensive Plans to incorporate land use and transportation strategies that reduce Greenhouse Gas Emissions and Vehicle Miles Traveled (VMT)
- City amended its Comprehensive Plan in the second round of 2008 to comply with this legislation

# Florida Senate Bill 360 (2009)

- Eliminates State-mandated transportation Concurrency requirements in designated Transportation Concurrency Exception Areas (TCEA's) in Dense Urban Land Areas
- State-mandated concurrency requirements continue to apply in all other areas of the State
- Within two years, a Local Government must adopt into its Comprehensive Plan Land Use and Transportation Strategies to support and fund mobility in the TCEA. The Strategies must include alternative modes of transportation
- In SB 360, the Legislature found that Transportation Concurrency has not adequately addressed the State's transportation needs and that the State should consider implementation of a mobility fee

# Florida Senate Bill 360 (2009)

- SB 360 directs DCA and DOT to submit to the Legislature by December 1, 2009, a report on their Mobility Fee Study, recommended legislation, and plan of implementation.
- **DCA and DOT are recommending a fee that is sensitive to Vehicle Miles Traveled (VMT)**
- The Legislature could enact a Mobility Fee System to replace Transportation Concurrency in the 2010 Session
- DCA: “SB 360 only removes State-mandated Transportation concurrency and DRI regulations in TCEA’s”. “SB 360 expressly does not limit a Local Government’s Home Rule Power to adopt ordinances and fees”

# Congestion

- **Some level of congestion is good:** Congestion is an indicator of economic health within a region. It can also serve to encourage behaviors that are deemed desirable, such as increased transit usage, greater mode shares for bicycle and pedestrian trips, and the relocation of households to locations closer to destinations.
- Historically, when a roadway was deemed to be congested, the response has been to: a) Build New Roads b) Widen existing Roads.

# Congestion

- New lanes produce short/mid term congestion reduction => reduced congestion and initial time gains lead to “induced” traffic (triple convergence) => congestion returns.
- Unsustainable trend due to high cost associated with building and/or widening roads (economically, environmentally, and socially).
- As a result, other approaches are being used to “address” congestion.

# Transportation System Management (TSM)

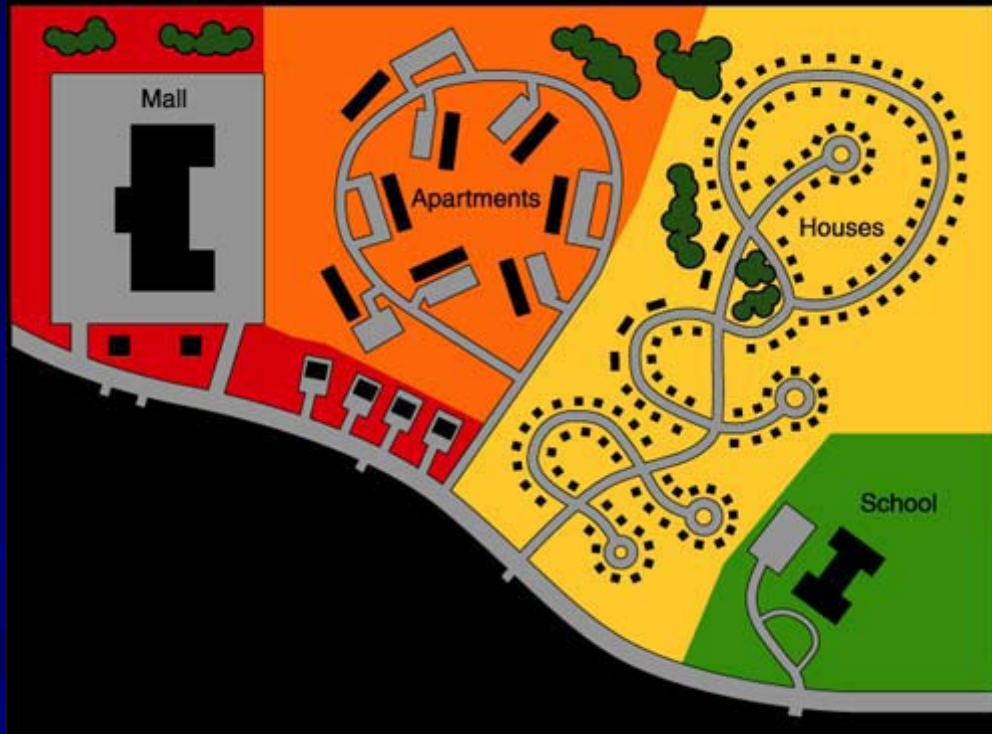
- Application of actions to make the most productive and cost effective use of existing transportation facilities and services without adding lanes:
  - Highway bottleneck removal
  - Intersection and signal improvements
  - Making roads one way
  - Provide traveler information services

# Transportation Demand Management (TDM)

- Initiatives that seek to reduce the number of cars on the road, either throughout the entire day or at peak hours:
  - Ridesharing (carpooling and vanpooling)
  - Telecommuting
  - Staggered working hours and flextime
  - Congestion and Parking Pricing
  - Transit improvements and incentives
  - Bike and Pedestrian improvements
  - HOV lanes

# Land Use Patterns Connectivity & Traffic Congestion

## Conventional Patterns (Since 1950s)



- *Sparse road network*
- *Separation of uses*

# Land Use Patterns

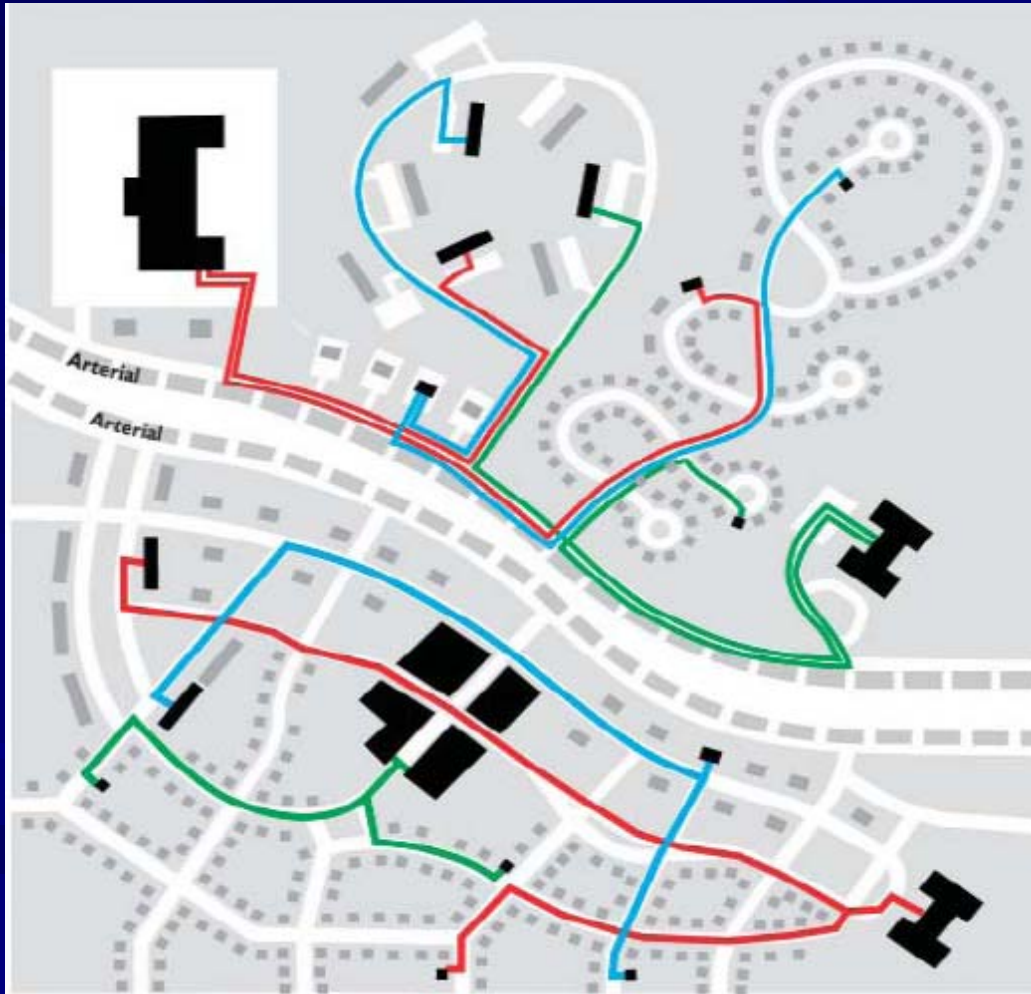
## Connectivity & Traffic Congestion

### Traditional Patterns



- *Roadway network with multiple connections*
- *Proximity of uses*
- *Public spaces link community*

# Land Use Patterns Connectivity & Traffic Congestion



## Top:

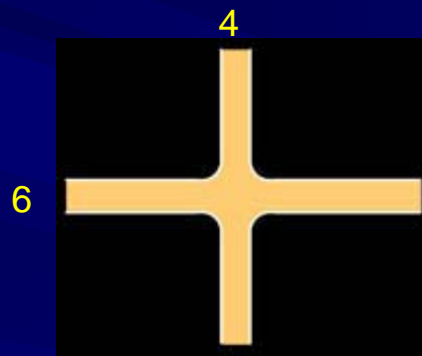
- Promotes vehicular travel
- Long trip lengths
- Trips concentrated on one major roadway

## Bottom:

- Promotes walking & biking
- Shorter trip lengths
- Dispersion of trips on multiple roadways

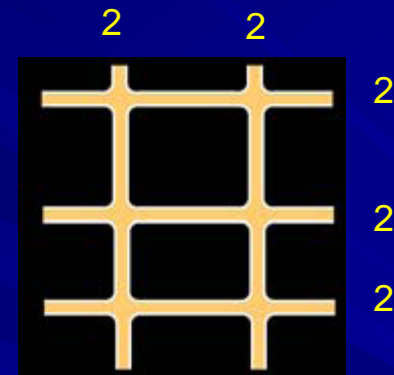
# Land Use Patterns

## Connectivity & Traffic Congestion



<--Same Total Lanes -->

More Capacity→

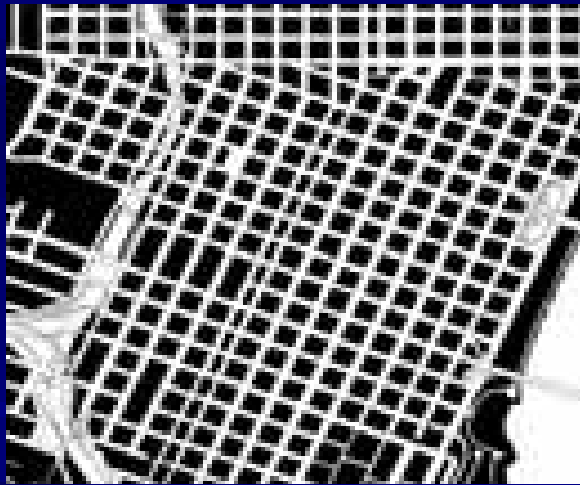


# Land Use Patterns Connectivity & Traffic Congestion (The Bone Structure)

*Traditional*

*vs.*

*Conventional*



Portland, Oregon



Walnut Creek, California

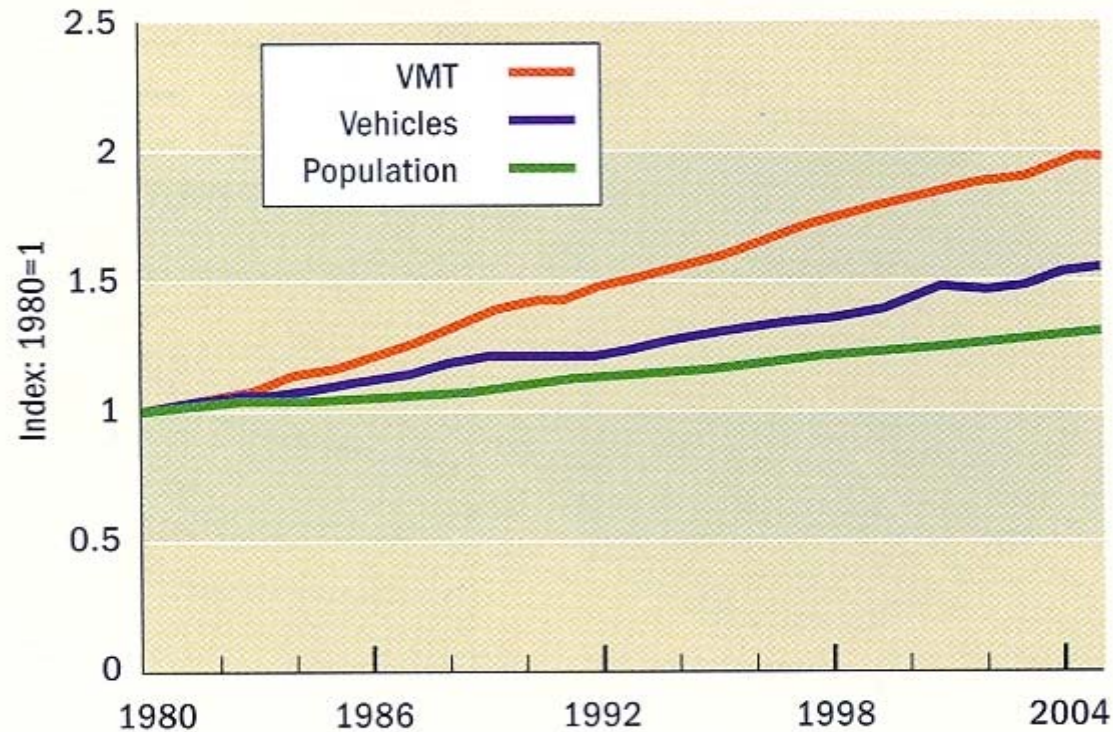
Central Business Districts at the same scale

# Vehicle Miles Traveled (VMT)

- Until recently, evaluation of the average Vehicle Miles Traveled (VMTs) in a community had not been used as a transportation indicator. Typically, only numbers of trips had been quantified
- Nowadays, experts recommend that policies and programs to assess, and eventually reduce VMTs be adopted in order to help reduce traffic congestion
- This can be achieved through transportation and land use measures and initiatives such as: transit improvements, bike and pedestrian improvements, mixing of land uses, improved connectivity
- In response to SB 360, DCA and DOT are recommending a fee that is sensitive to Vehicle Miles Traveled

# Increase of VMT Since 1980

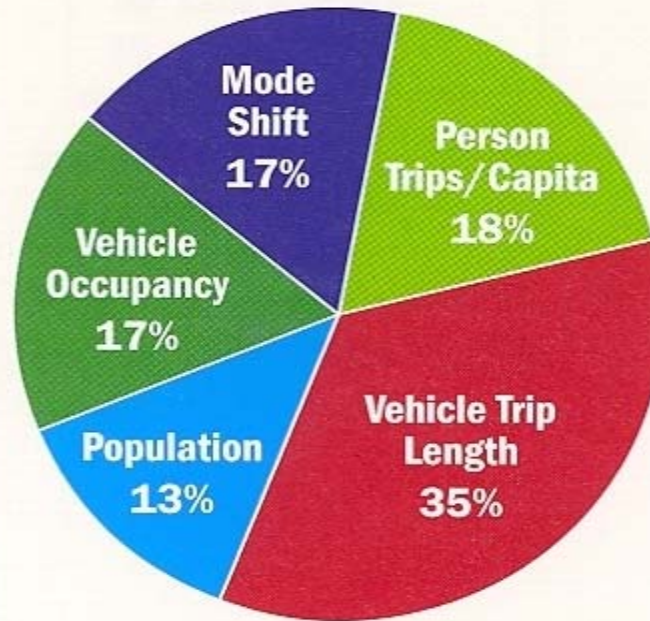
**Growth of VMT, Vehicle Registrations, and Population in the U.S. relative to 1980 Values**



**SOURCE:** Federal Highway Administration (FHWA). "Vehicle Registrations, Fuel Consumption, and Vehicle Miles of Travel as Indices." *Highway Statistics 2005*, Washington, D.C.: U.S. Department of Transportation, 2006, <http://www.fhwa.dot.gov/policy/ohim/hs05/htm/mvfv.htm>.

# Factors for VMT Growth

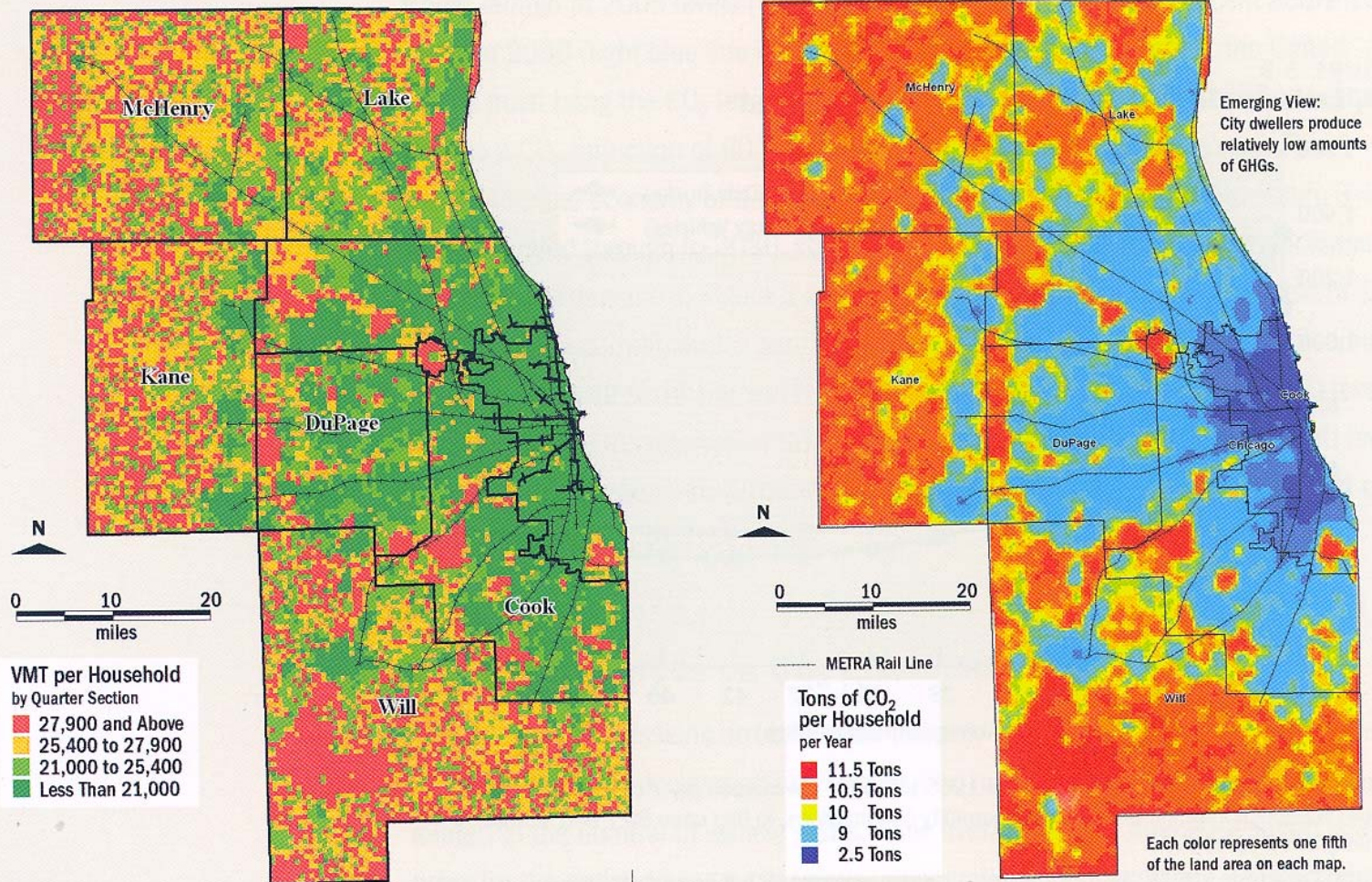
## Factors Explaining VMT Growth between 1983 and 1990



**SOURCE:** A.E. Pisarski. *Travel Behavior Issues in the 90s*. Washington, D.C.: Federal Highway Administration, 1992, p. 10.

# VMT and CO2 Emissions Link

Close Relationship between VMT per Household and CO<sub>2</sub> Emissions in the Chicago Metropolitan Area



SOURCE: Center for Neighborhood Technology, Chicago, undated.

# Complete Streets

- Streets that are designed, built, and maintained in a manner that accommodates not only automobiles, but transit vehicles and non-motorized modes of travel such as pedestrians and bicyclists
- Complete Streets seek to be aesthetically pleasing and provide for a comfortable environment for its different users
- Complete Streets improve safety, promote active living, and help reduce emissions

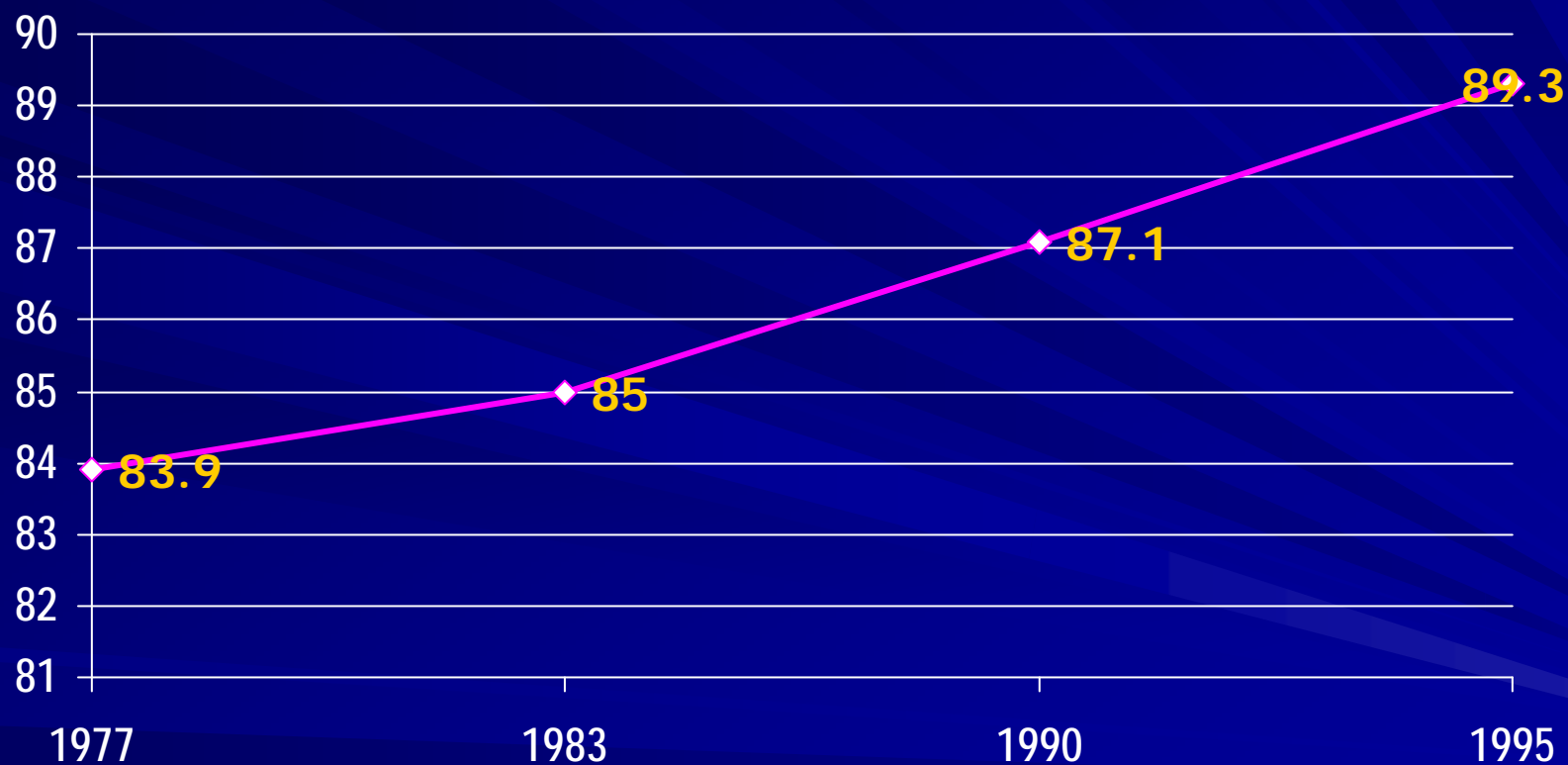


**Incomplete Street**



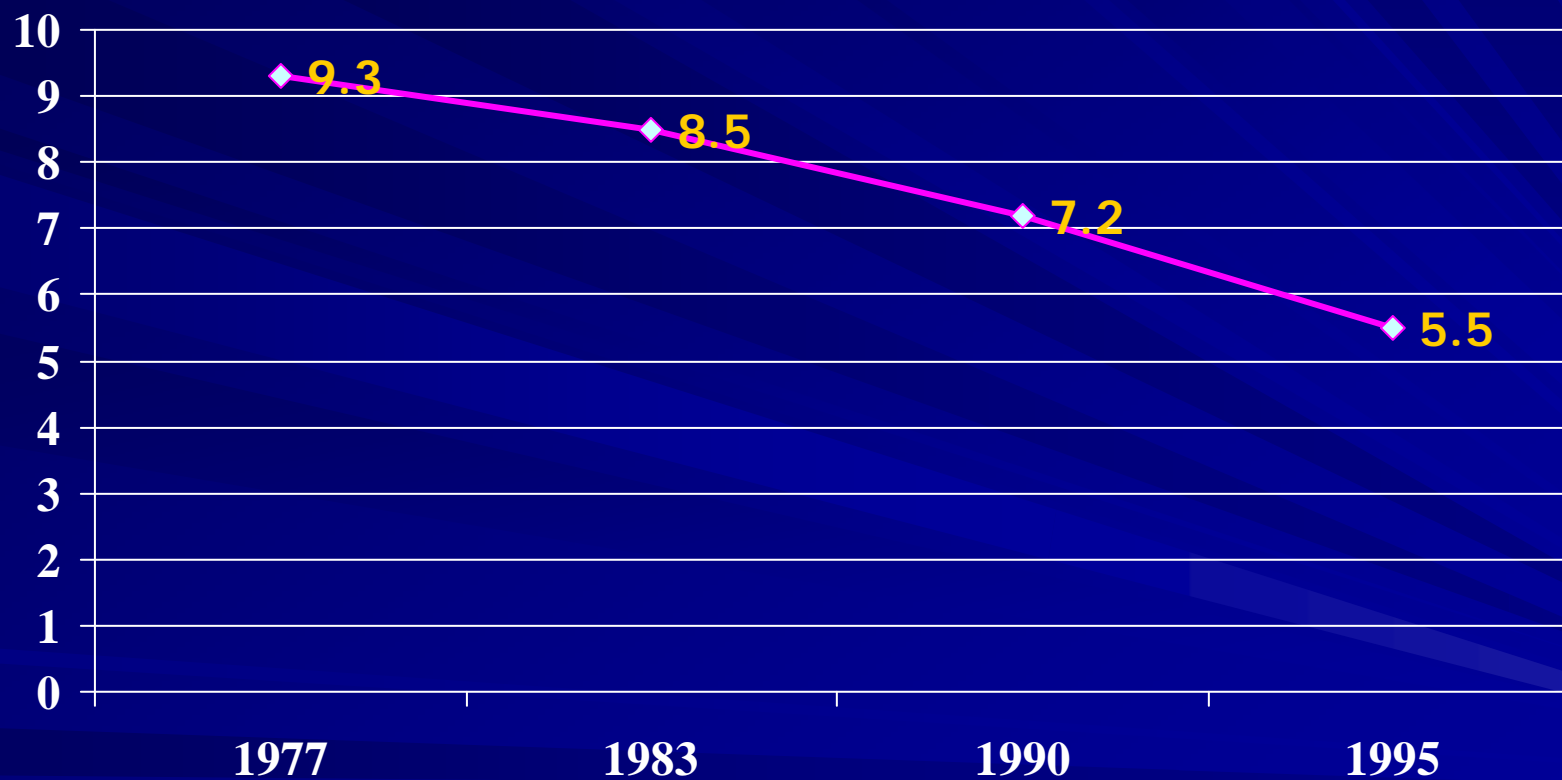
**Complete Street**

# Percent of Auto Trips 1977-1995 (As a % of Total Trips)



Source: Nationwide Personal Transportation Survey, 1995

# Percent of Walk Trips 1977-1995 (As a % of Total Trips)



Source: Nationwide Personal Transportation Survey, 1995

# Factors that Influence Decisions to Walk or Bicycle

- Land Use Mix
- Network Connectivity
- Street Design
- Site Design
- Density
- Beliefs
  - Crime
  - Safety

# Reasons for Increasing Walking & Bicycling Options

- **Environmental:** It may lead to a reduction in automobile use, resulting in positive impacts on air quality, climate change, and protection of sensitive areas and species
- **Public Health:** Increase physical activity and reduction in obesity and other “lifestyle” diseases
- **Social & Economic:** More and better access to “facilities and activities”
- **Quality of Life:** Compendium of all of the above



It's not just an obesity epidemic. It's an epidemic of physical inactivity.

# West Palm Beach's Roadway Network

Composed of:

- State Thoroughfares
  - County Thoroughfares
  - City Thoroughfares
- For its LOS analysis, the City is only responsible for the City thoroughfares
- Thoroughfares = arterial and collector roads
  - Local roads are not evaluated for LOS



# Downtown West Palm Beach Traffic Concurrency Exception Area (TCEA)

- Adopted in 1997 in order to promote redevelopment in the Downtown, including mixed use opportunities, and to reduce the City's dependence on automobiles.
- Encourages residential development by requiring a minimum mix or "ratio" of residential to non-residential uses. It also limits the total amount of non-residential uses allowed in Downtown (annual report to the County)

# Downtown West Palm Beach Traffic Concurrency Exception Area (TCEA)

- Required the City to develop a Transportation Management System (TMS) with measures and initiatives to manage vehicular traffic, including:
  - Promotion of transit
  - Implementation of employer-based TDM activities
  - Encourages use of modes other than single-occupancy vehicles
  - Resulted in the establishment of the City's Transportation Management Initiative (TMI)

# Existing Public Transportation Services in West Palm Beach

- Tri-Rail
- Palm Tran
- Downtown Trolley
- Amtrak
- Greyhound

# Tri-Rail

- Over 4.3 *million* passengers in 2008 (23 % increase from 2007 and 38% increase from 2007).
- Almost one million boardings and alightings at the *West Palm Beach Station*, which ranks *second* only to the Miami-Dade Tri Rail /Metro Rail Transfer Station.
- City obtained two grants for a total of \$1,5 million to “improve” Seaboard Train station and pedestrian access through West Clematis. Work expected to start in 2010 @ train station and 2012 @ West Clematis.

# Palm Tran

- Fourteen (14) Palm Tran routes serve the City of West Palm, including routes 1, 2, 3, and 43 which are the four routes with the highest ridership in the entire system. These four routes transport 54% of the riders in the entire system.
- These routes also have the best headways (15-20 minutes) in the entire Palm Tran System.
- Multimodal Transfer Station recently opened in Downtown WPB. Twelve Palm Tran routes go this station
- Transit connections between the western areas of the City and the Downtown could be improved.

# Downtown Trolley

- Free service that connects City Place with the Clematis District.
- Between 40,000-59,000 riders per month over the last year.
- City obtained grant to improve trolley service. Currently evaluating route connecting Train Station with main attractions in Downtown.

# Potential Transit Projects affecting West Palm Beach

- South Florida East Coast Corridor (SFECC) Transit Study: FDOT evaluating the use of the FEC right of way for passenger use. It would provide transit service from Tequesta to Miami-Dade
- Central Palm Beach County Transportation Corridor Study: Looks at providing Bus Rapid Transit (BRT) service between the western part of the County and Downtown West Palm Beach

# Pedestrian Facilities

- The City has a relatively comprehensive network of sidewalks on almost all of its streets (on one or both sides of all public streets)
- The City is looking at addressing any “sidewalk gaps” and is currently evaluating the condition of existing sidewalks
- Efforts to widen existing sidewalks/pathways and add pedestrian amenities in heavier use areas

# Bicycle Facilities

- The City has segments of bike routes and “bike- friendly” streets but they are not yet part of a comprehensive bicycle system
- More stringent requirement for bicycle parking and other bicycle facilities (showers and changing areas for non-residential uses) were incorporated into the Downtown Master Plan regulations
- City installing additional bike racks (and Bicycle lockers) throughout Downtown and Northwood Village
- Planning Staff will work on developing a Bicycle & Greenways Plan for the City in 2010

# Bicycle Facilities



# Bicycle Locker Facilities



# Comprehensive Plan Transportation Vision

- The Transportation Vision outlines the direction of transportation planning for the City of West Palm Beach. It identifies the major priorities that the City needs to address from a transportation standpoint in order to ensure the development of a transportation system that increases the quality of life for its residents and visitors while providing for a variety of transportation choices that help reduce Vehicle Miles Traveled (VMT) and greenhouse gas emissions.

# Transportation Vision

- **Provide a wider choice of transportation options**
- **Promote the increased use of bicycle and pedestrian facilities as a viable alternate means of transportation to the automobile**
- **Promote transit options throughout the City**
- **Develop Complete Streets**

# Transportation Vision

- **Use of Transportation Demand Management (TDM) and Transportation System Management (TSM) measures to reduce congestion**
- **Develop a transportation network that emphasizes safety and aesthetics**
- **Evaluate the environmental impacts of transportation projects**
- **Plan for increased densities around designated nodes and corridors and more mixed land use**

# Conclusions

- City thoroughfares expected to operate within the currently adopted LOS E.
- City working on several “transportation management” programs and initiatives consistent with TCEA requirements.
- Relatively good transit service in eastern part of the City. Need to improve transit connections between western areas and Downtown.
- More stringent bicycle facility requirements recently adopted. Comprehensive bicycle network still missing.
- Relatively good “pedestrian environment” in the eastern areas of City. It needs improvement in the western areas.