

WHY AN MPO ?

- ▲ TO ENSURE THAT LOCAL GOVERNMENTS HAVE APPROPRIATE **INPUT ON HOW FEDERAL AND STATE TRANSPORTATION FUNDS** ARE SPENT
- ▲ DUE TO MULTI-JURISDICTIONAL IMPACTS, MPO SEEKS **TO BUILD CONSENSUS** AMONG MEMBER OVERNMENTS
- ▲ FUNDED LARGELY BY FED. & STATE **GRANTS**

LEGISLATIVE AUTHORITY

23 USC 134

- ▲ AN MPO “SHALL BE DESIGNATED FOR EACH **URBANIZED AREA** OF MORE THAN **50,000 POPULATION...**”
- ▲ URBANIZED AREAS OVER **200,000 POP.** DESIGNATED AS “**TRANSPORTATION MANAGEMENT AREAS**”
 - ▲ FED. REVIEW EVERY 3 YEARS

MPO FUNCTIONS

UNDER FED. & STATE LAWS, MPO MUST PREPARE:

- ▲ **LONG-RANGE PLAN** (20 YEAR HORIZON, UPDATED EVERY 3 YEARS)
- ▲ **ANNUAL TRANSPORTATION IMPROVEMENT PROGRAM** (5 YEAR HORIZON)
- ▲ **ANNUAL UNIFIED PLANNING WORK PROGRAM**
- ▲ **OTHER REQUIRED STUDIES**

MPO MEMBERSHIP

Hills. County
BOCC

Hills. County
BOCC

Hills. County
BOCC

Hills. County
BOCC

Plant City
Commis-
sion

Mayor of
City of
Tampa

Mayor of City
of Temple
Terrace

Tampa-Hills.
Expwy.
Authority

Hills. Area
Regional
Transit
Authority

Tampa Port
Authority

FDOT District
Secretary (ex
officio)

Planning
Commission
(ex officio)

Tampa
City Council

Tampa
City Council

Hillsborough
Co. Aviation
Authority



MPO COMMITTEES

- ▲ POLICY COMMITTEE
- ▲ CITIZENS ADVISORY COMMITTEE
- ▲ TECHNICAL ADVISORY COMMITTEE
- ▲ BICYCLE / PED. ADVISORY COMMITTEE
- ▲ TRANS. DISADVANTAGED COORD. BD.
- ▲ LIVABLE ROADWAYS COMMITTEE
- ▲ ITS COMMITTEE

Hillsborough County MPO Transit Study

Transit Concept for 2050
December 2007



Transit Technologies



▲ Bus

▲ Light Rail

▲ Commuter
Rail





TRANSIT STUDY

Bus

- ▲ Standard or articulated high-capacity vehicles
- ▲ Special lanes or signal priority – Bus Rapid Transit
- ▲ Advantage of flexible service
- ▲ Congestion problem in mixed traffic



Capacity of about one new arterial lane



METROPOLITAN
PLANNING
ORGANIZATION
FOR TRANSPORTATION

Commuter Rail

- ▲ Locomotive pulling passenger cars
- ▲ Shares freight tracks
- ▲ Flexible capacity
- ▲ Peak hour service
- ▲ Long haul or suburb to city
- ▲ Needs to run flat and straight



Capacity of about one new lane of Interstate

Light Rail

- ▲ Powered from above
- ▲ Has its own tracks
- ▲ Frequent All day service
- ▲ Suburb-to-city and urban area travel
- ▲ Quick acceleration
- ▲ Can climb and turn easily



Capacity of about four new arterial lanes



TRANSIT STUDY

Future Commute

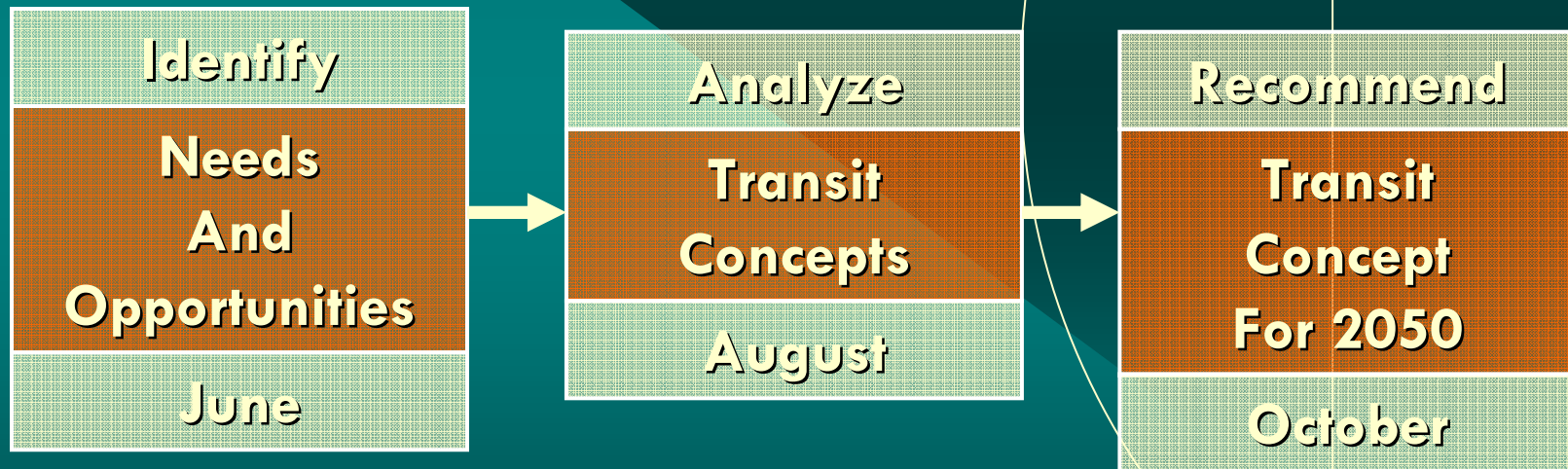
- ▲ Congested travel is projected to increase by ten times by 2050
- ▲ Average commute time for vehicles would triple
- ▲ Rail transit provides reliable trip times that don't change
- ▲ Bus transit can also do this in exclusive or special purpose lanes



Study Summary



MPO Transit Study Process



Transit Concept for 2050



Transit Concept for 2050

- ▲ **Basis of Concept**
 - ▲ **Improve Mobility**
 - ▲ **Support Economic Vitality**
 - ▲ **Quality of Life and Growth Management**
- ▲ **Transit Service Characteristics**
 - ▲ **Major Destinations**
 - ▲ **Quality of Service**
 - ▲ **Service Area**

Concept Selection Process

- ▲ Identified best opportunities for transit corridors
 - ▲ Past studies
 - ▲ Future concepts
- ▲ Determined projected growth
 - ▲ Compared concept with current trend for 2050
 - ▲ Created a transit oriented future scenario
- ▲ Evaluated technology choices
 - ▲ Capacity of transit corridors to accommodate development
 - ▲ Potential ridership and order of magnitude costs

MPO TRANSIT STUDY



Light Rail

- ▲ New Tampa-Westshore
- ▲ Brandon-Westchase
- ▲ South Tampa-Downtown

Commuter Rail

- ▲ Lutz
- ▲ SouthShore
- ▲ Plant City

Bus

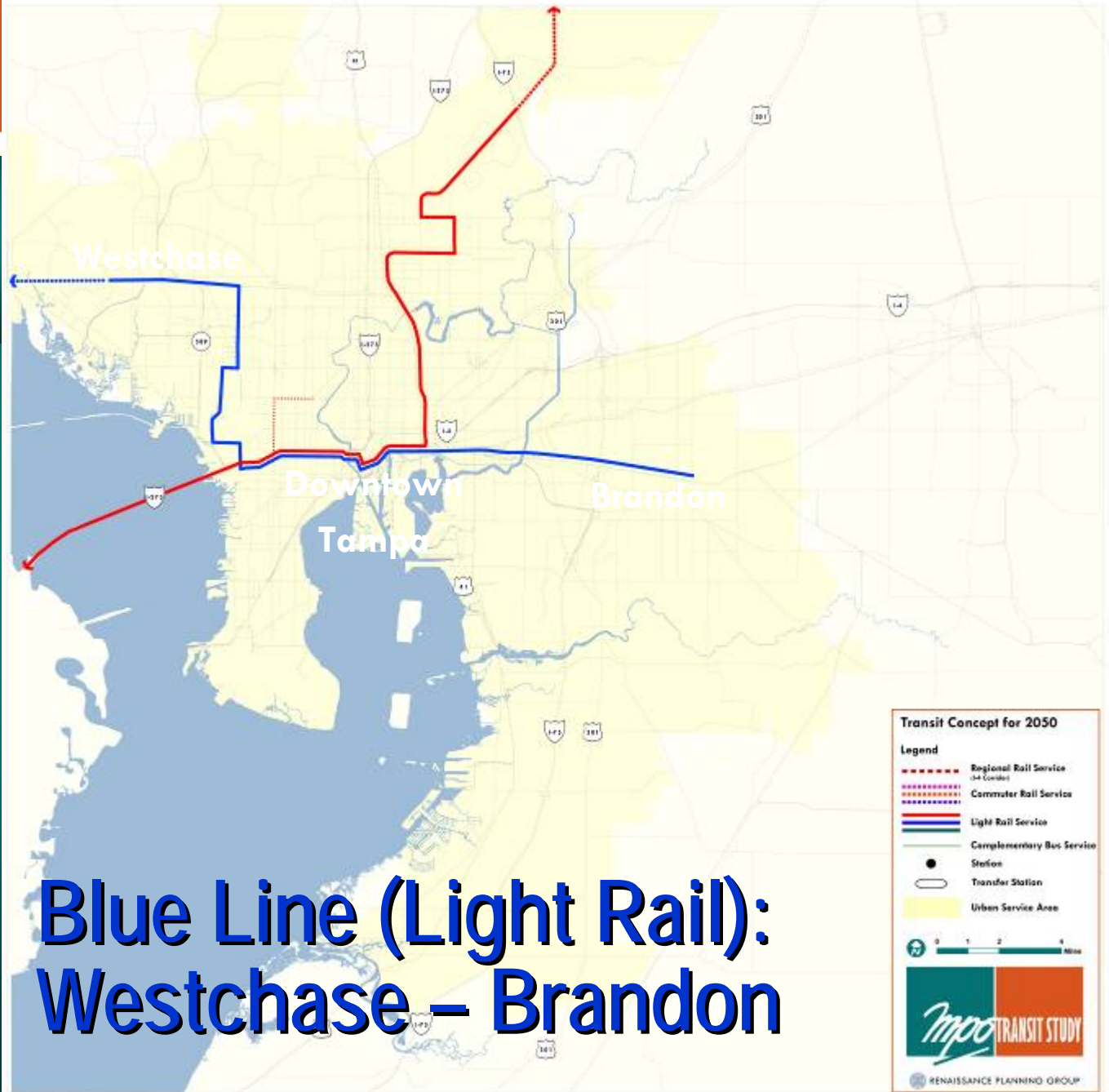
- ▲ Complementary Bus Network



- ▲ Connects major activity centers
- ▲ Continuous all-day service
- ▲ Closely spaced station
 - ▲ 30 miles
 - ▲ 26 Stations
- ▲ Serves urban living, transit dependent, choice riders & special event
- ▲ Capacity to supports future growth



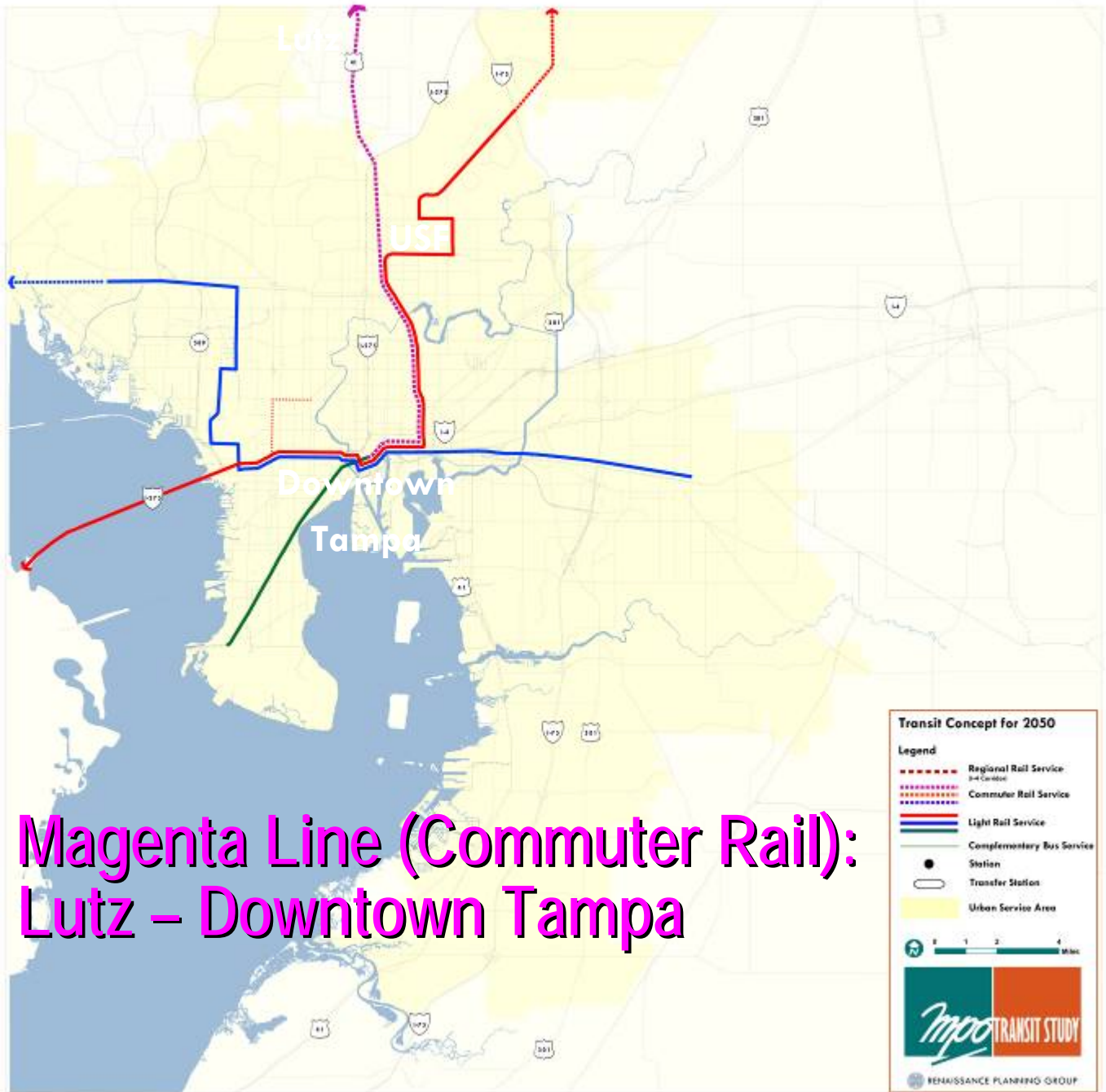
- ▲ Connects housing & employment
- ▲ Brandon as regional center
- ▲ Infill east of CBD
- ▲ Closely spaced station
 - ▲ 27 miles
 - ▲ 27 Stations
- ▲ Serves urban living, transit dependent, choice riders & special event



- ▲ Serves densely populated area and activity centers
- ▲ Closely spaced station
 - ▲ 8 miles
 - ▲ 9 Stations
- ▲ Serves urban living, transit dependent, choice riders & special event

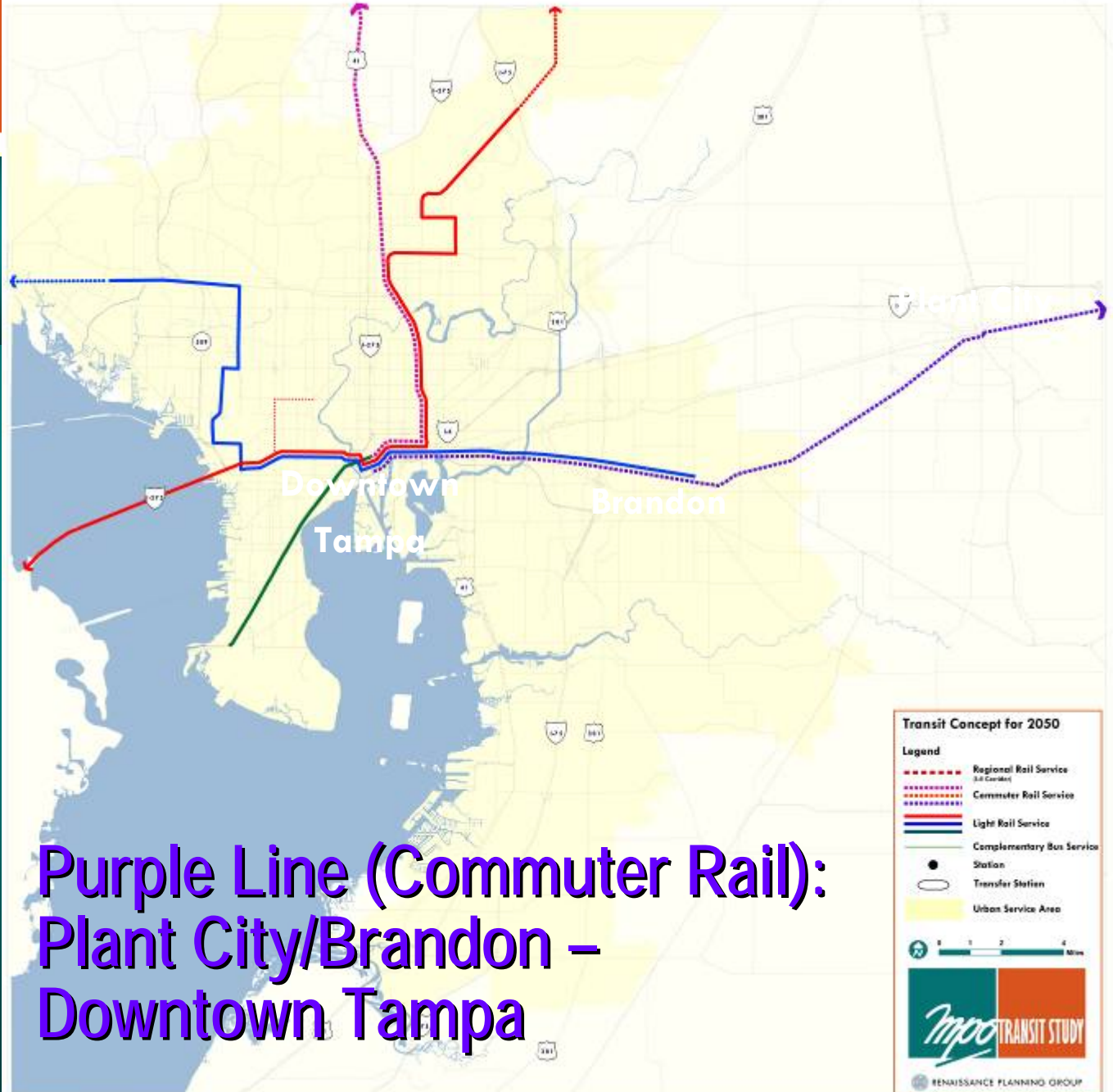


- ▲ Commuter rail service to north Hillsborough and Pasco counties
- ▲ Peak period travel & transfer stations to light rail
- ▲ Express service
 - ▲ 17 miles
 - ▲ 6 Stations
- ▲ Provides alternative to commuters, transit dependent & underserved areas
- ▲ Adds capacity alternatives to major road investments



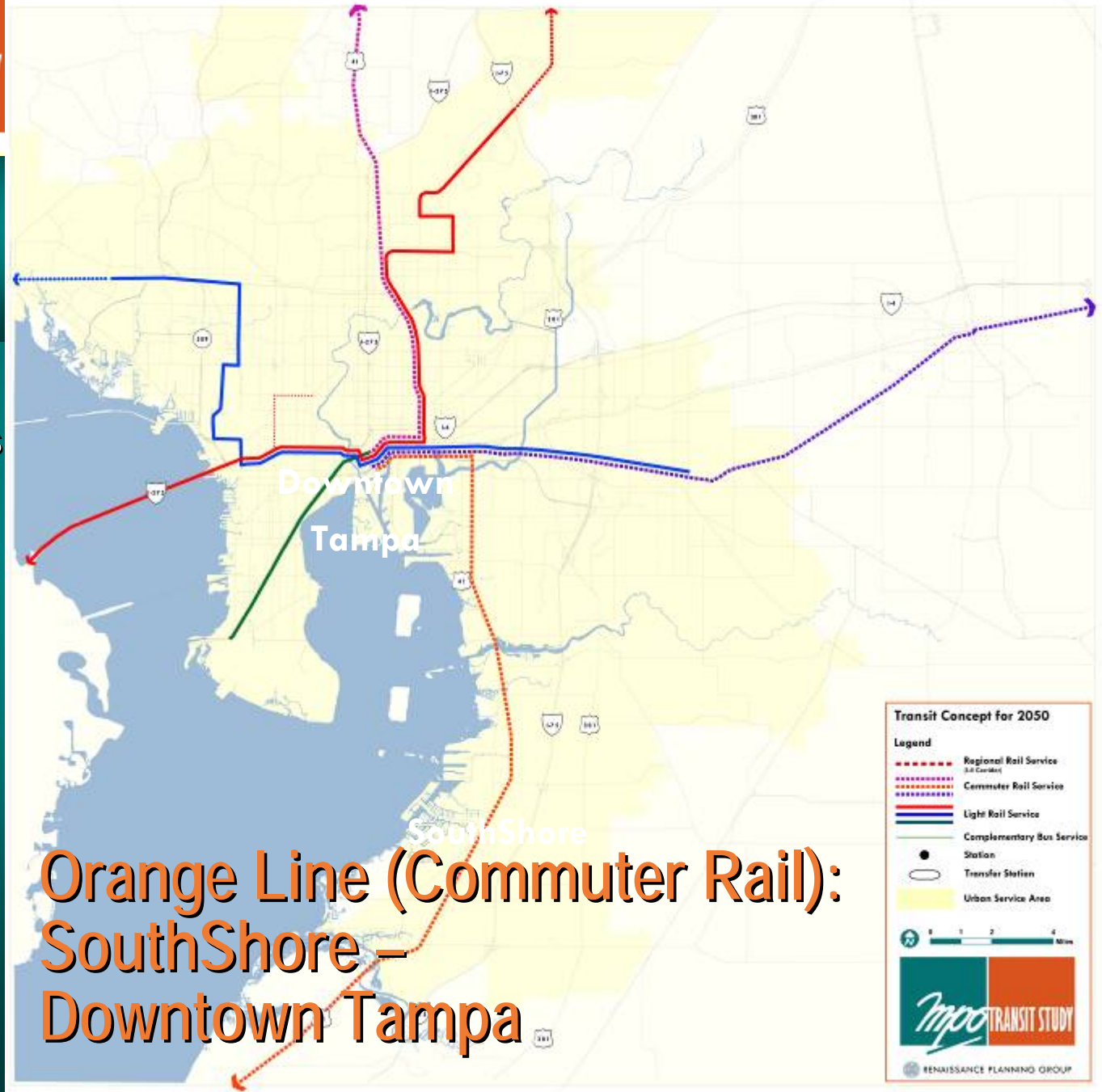
**Magenta Line (Commuter Rail):
Lutz – Downtown Tampa**

- ▲ Commuter rail service to Plant City, Brandon and Polk County
- ▲ Peak period travel & transfer stations to Brandon light rail
- ▲ Express service
 - ▲ 26 miles
 - ▲ 5 Stations
- ▲ Provides alternative to commuters, transit dependent & underserved areas
- ▲ Adds capacity alternatives to major road investments

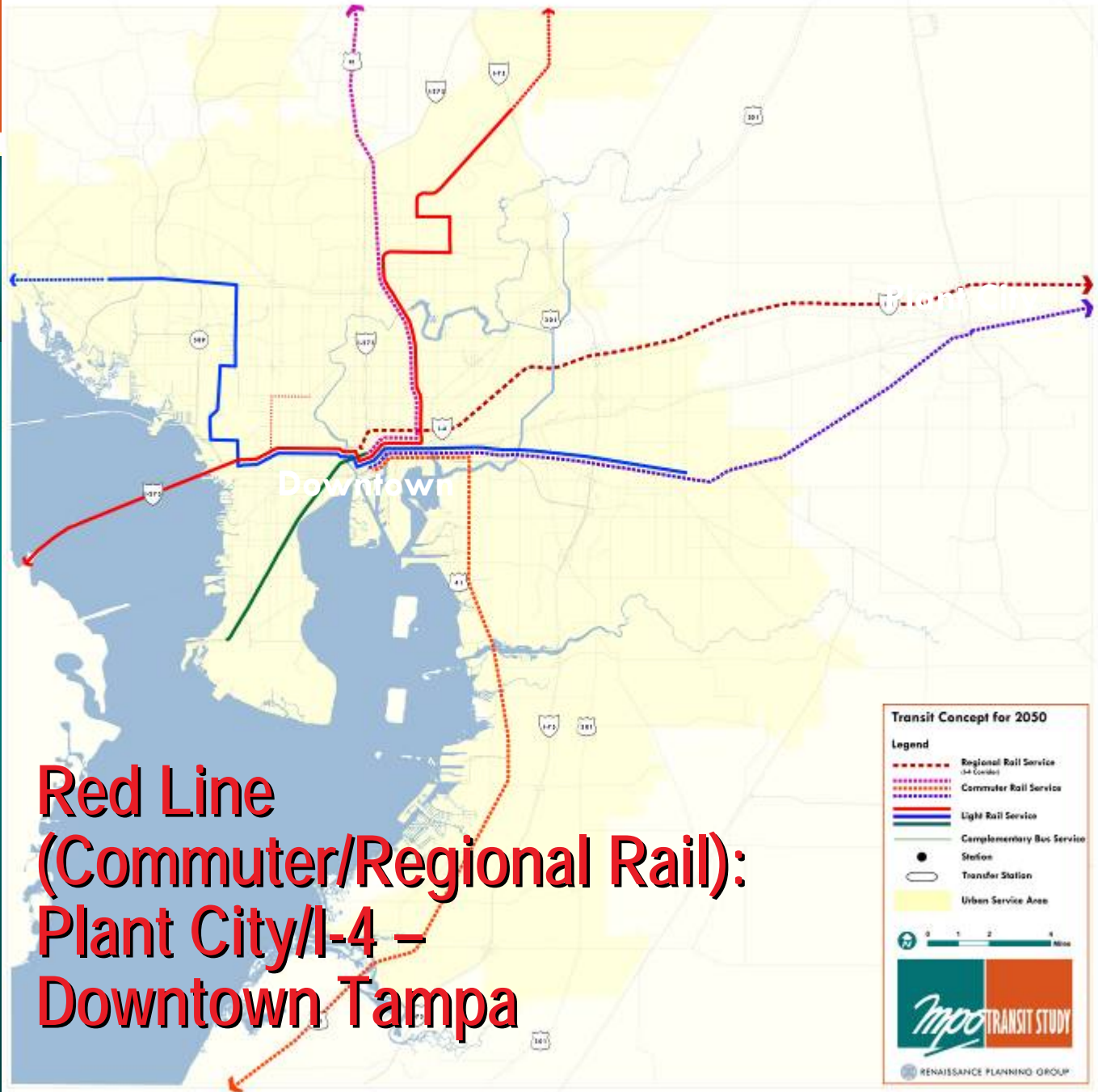


Purple Line (Commuter Rail): Plant City/Brandon – Downtown Tampa




- ▲ Commuter rail service to SouthShore and Sarasota/Manatee counties
- ▲ Peak period travel & transfer stations to light rail
- ▲ Express service
 - ▲ 26 miles
 - ▲ 7 Stations
- ▲ Provides alternative to commuters, transit dependent & underserved areas
- ▲ Adds capacity alternatives to major road investments







- ▲ Commuter rail service to Plant City along I-4 and East Central Florida
- ▲ Peak period travel to Tampa
- ▲ Express service
 - ▲ 26 miles
 - ▲ 5 Stations
- ▲ Provides alternative to commuters, transit dependent & underserved areas
- ▲ Adds capacity alternatives to major highway investments



Light Rail (Average 1 mile station spacing)

▲ New Tampa-Westshore (Red Line)	30 miles		26 stations
▲ Brandon-Westchase (Blue Line)	27 miles		27 stations
▲ South Tampa-Downtown (Green Line)	8 miles		9 stations

Commuter Rail (Avg. 3-5 mile station spacing)

▲ Lutz (Magenta Line)	17 miles		6 stations
▲ SouthShore (Orange Line)	26 miles		7 stations
▲ Plant City/Brandon (Purple Line)	26 miles		5 stations
▲ Plant City/I-4 (Red Line)	26 miles		5 stations

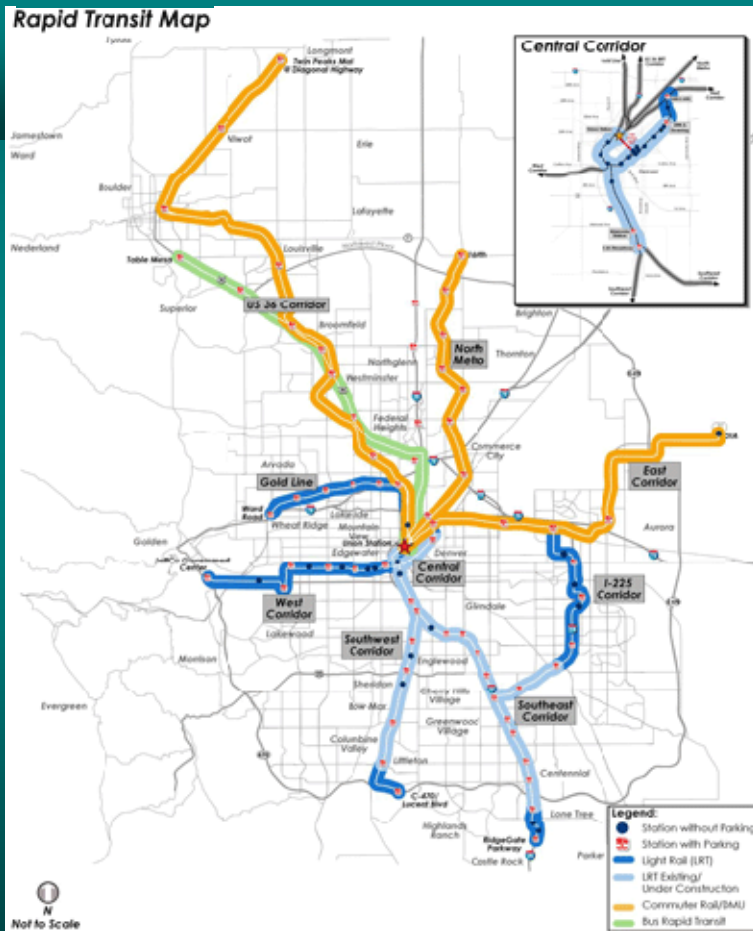
Denver Comparison

Hillsborough County

- ▲ Light Rail
 - ▲ 65 miles and 62 stations
- ▲ Commuter Rail
 - ▲ 95 miles and 23 stations

Denver

- ▲ Light Rail
 - ▲ 72 miles and 65 stations
- ▲ Commuter Rail
 - ▲ 80 miles and 20 stations



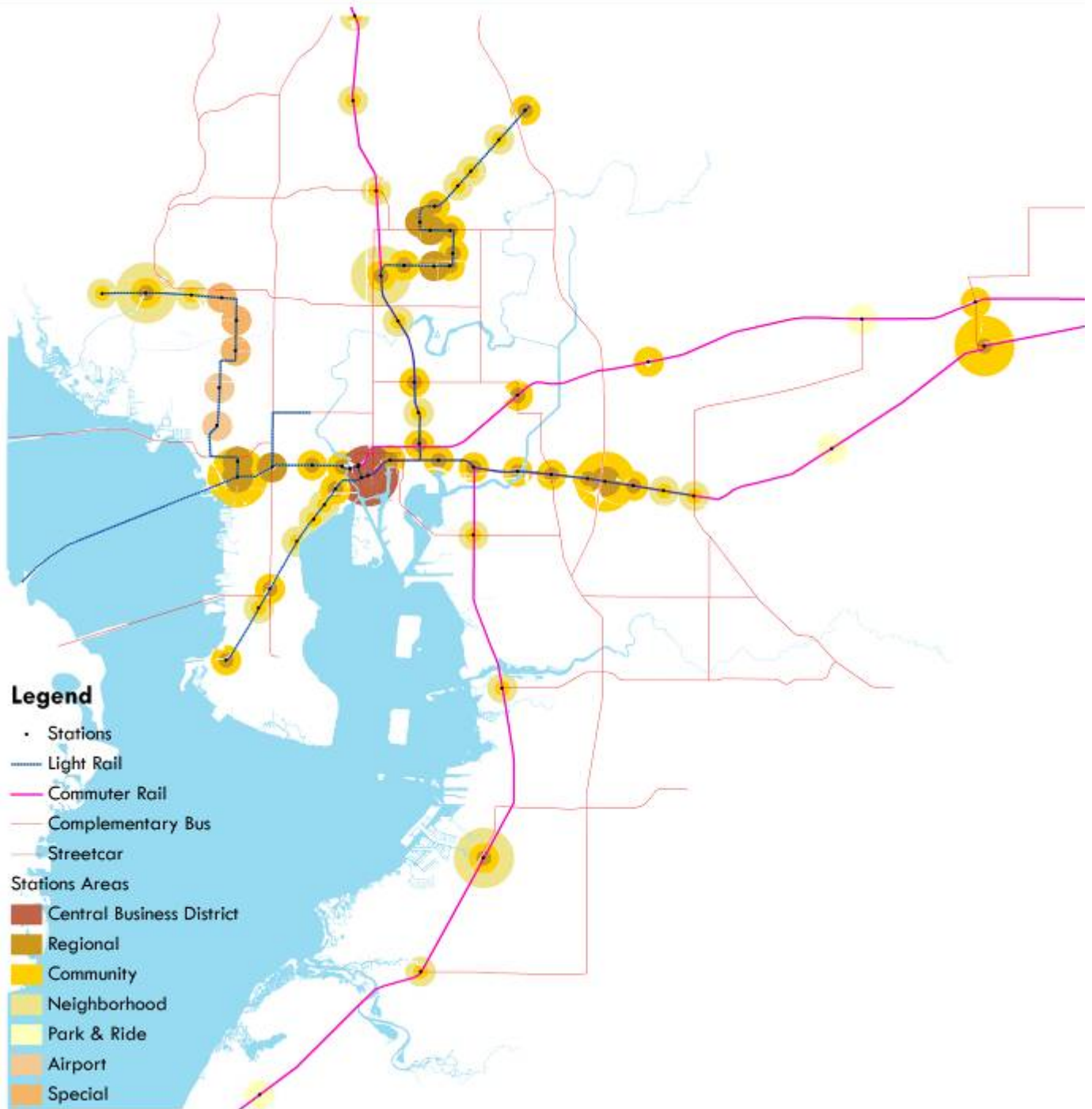
Denver

Analysis of Future Transit/Land Use Relationship



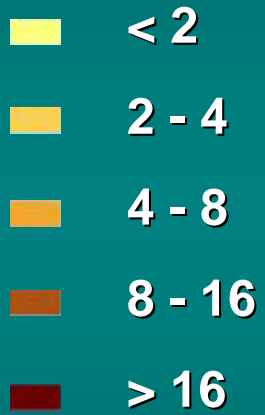
Station Types

- Regional**
 50-100 DU/Ac
 30-500 Jobs/Ac
- Community**
 20-75 DU/Ac
 5-100 Jobs/Ac
- Neighborhood**
 10-50 DU/Ac
 2-15 Jobs/Ac

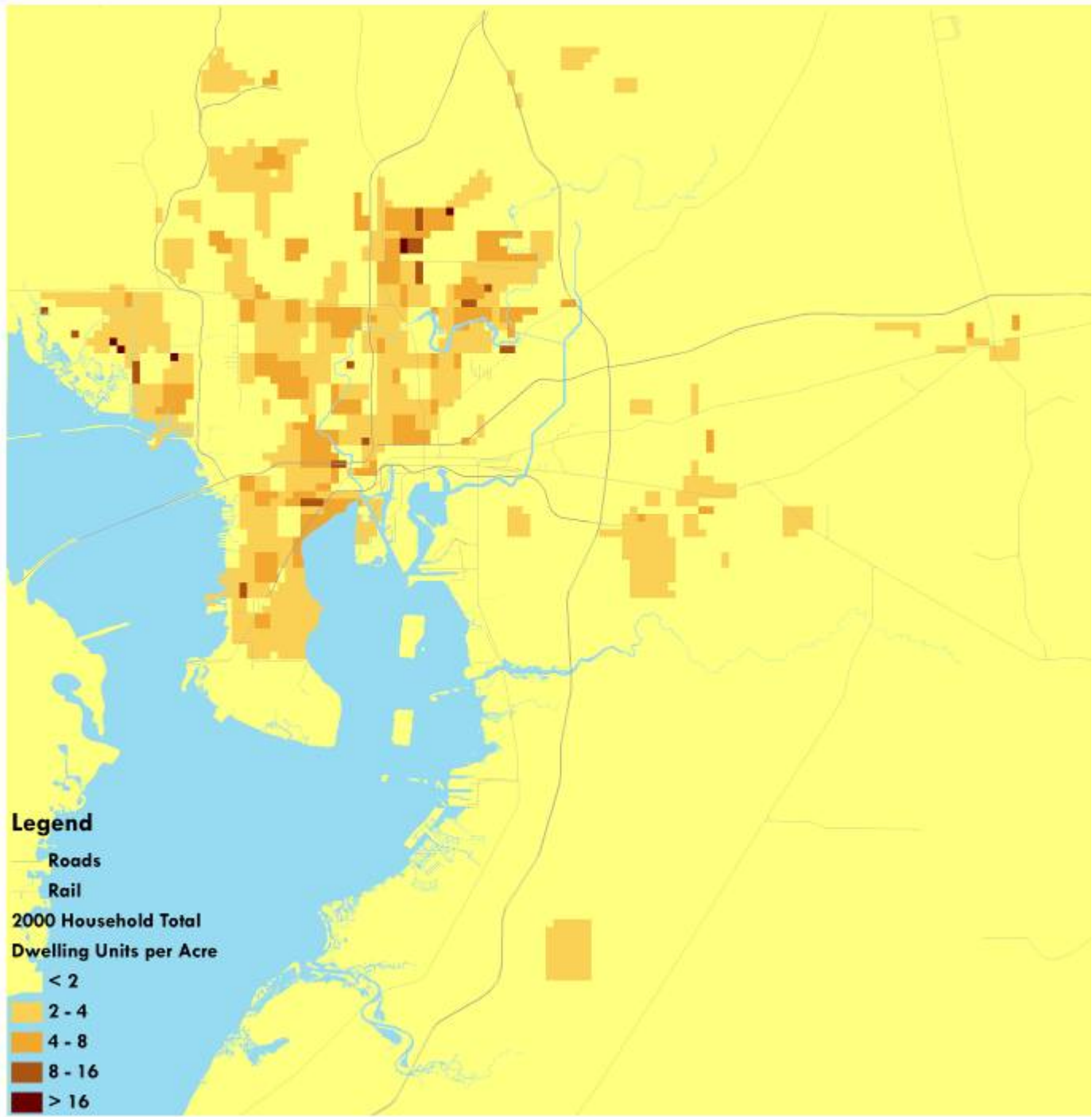
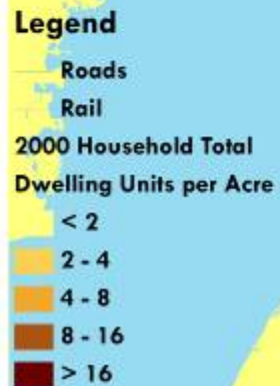


HH Density

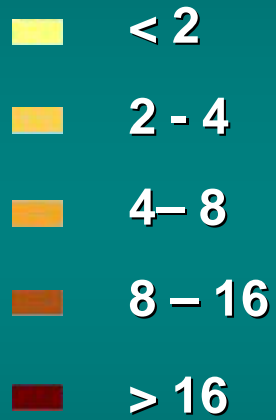
Current



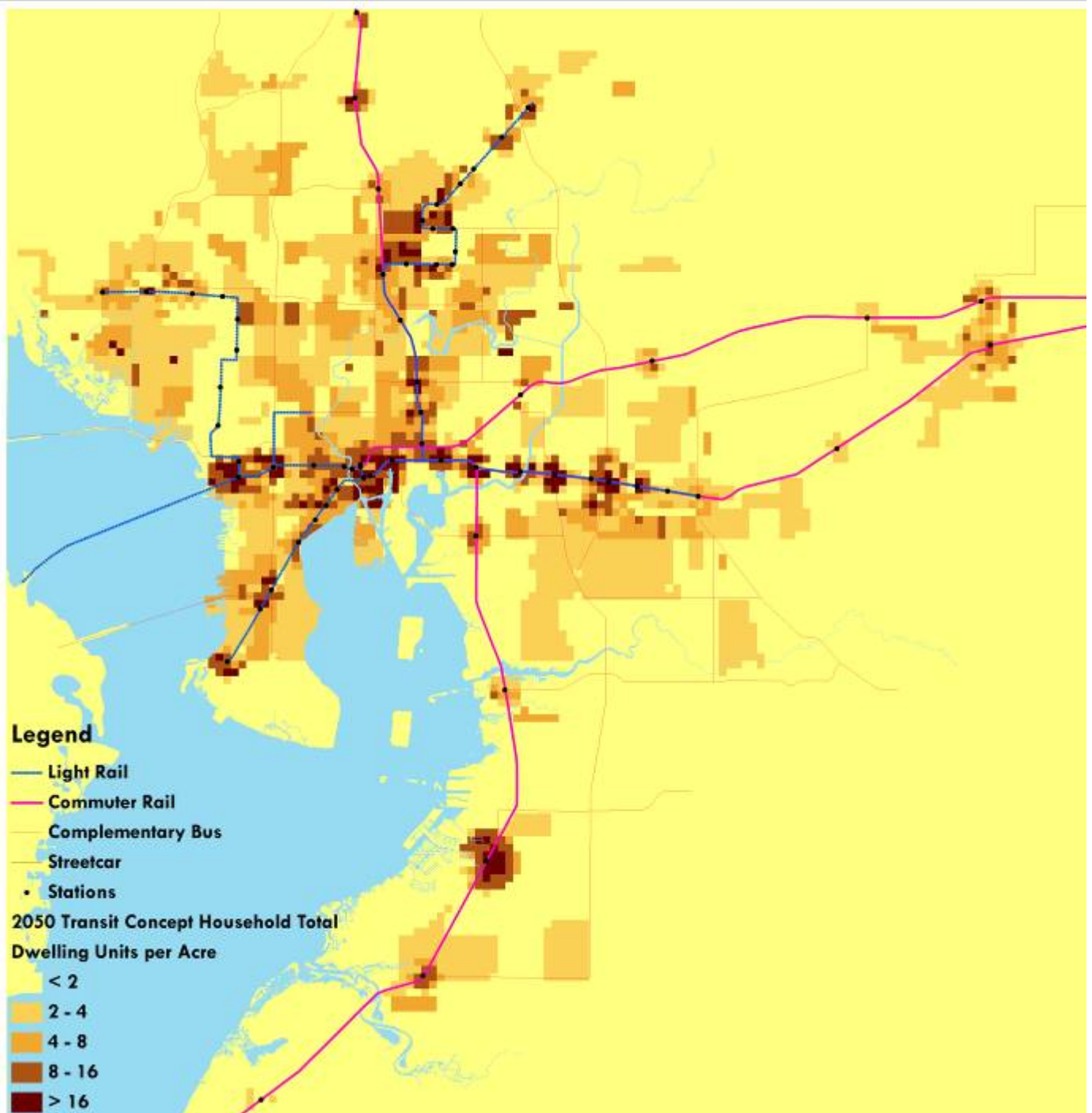
DU/Acre (2000)



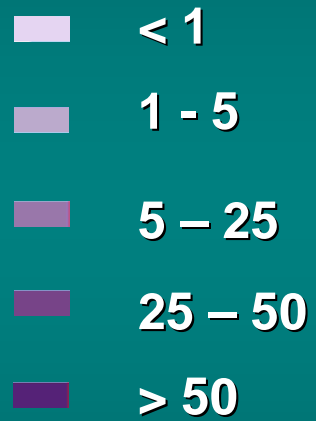
HH Density Transit Concept



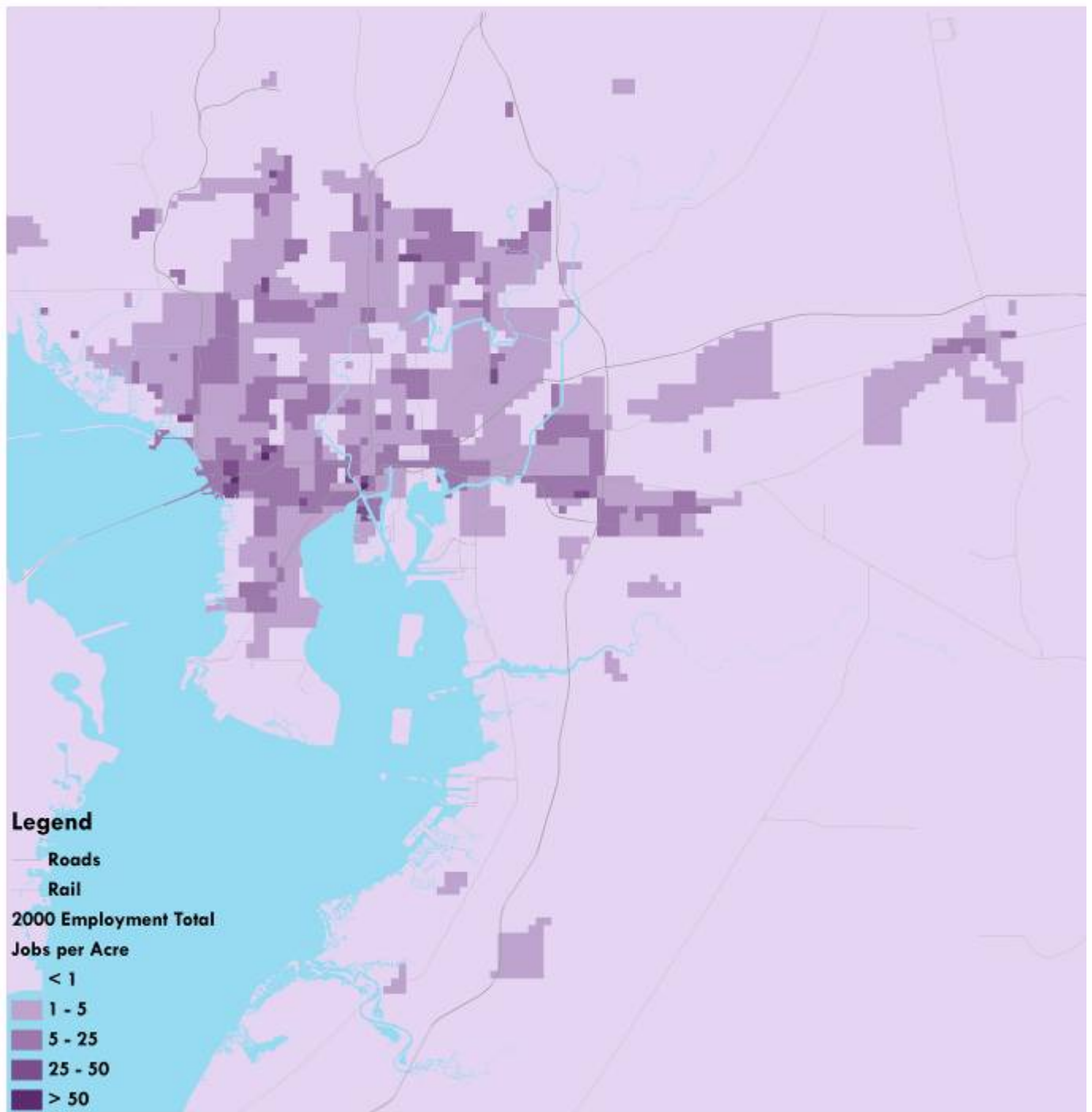
DU/Acre (2050) Projected Total With Transit



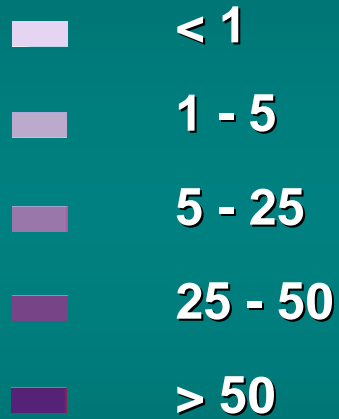
Jobs Density Current



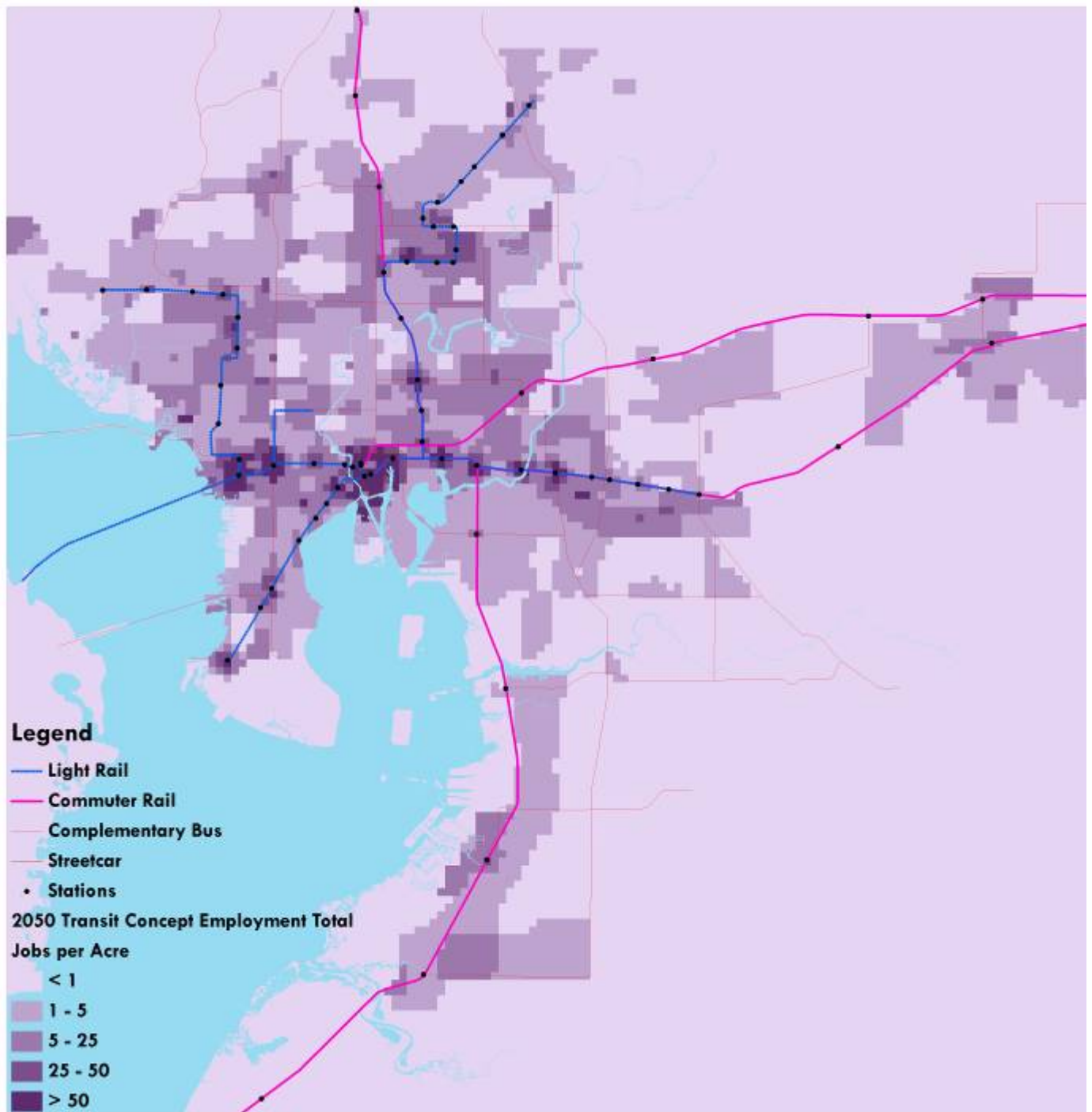
Jobs/Acre (2000)



Jobs Density Transit Concept

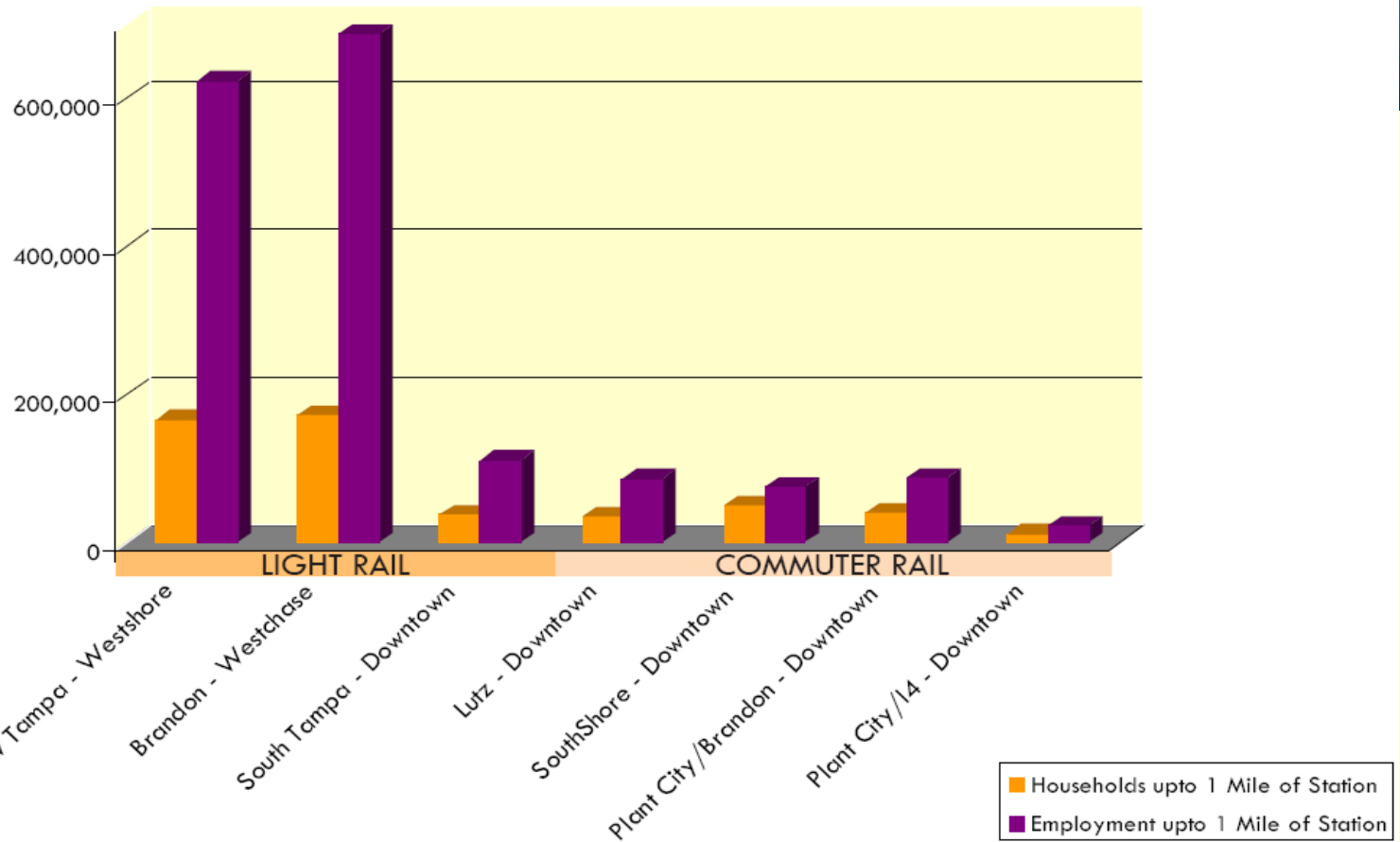


Jobs/Acre (2050) Projected Total With Transit





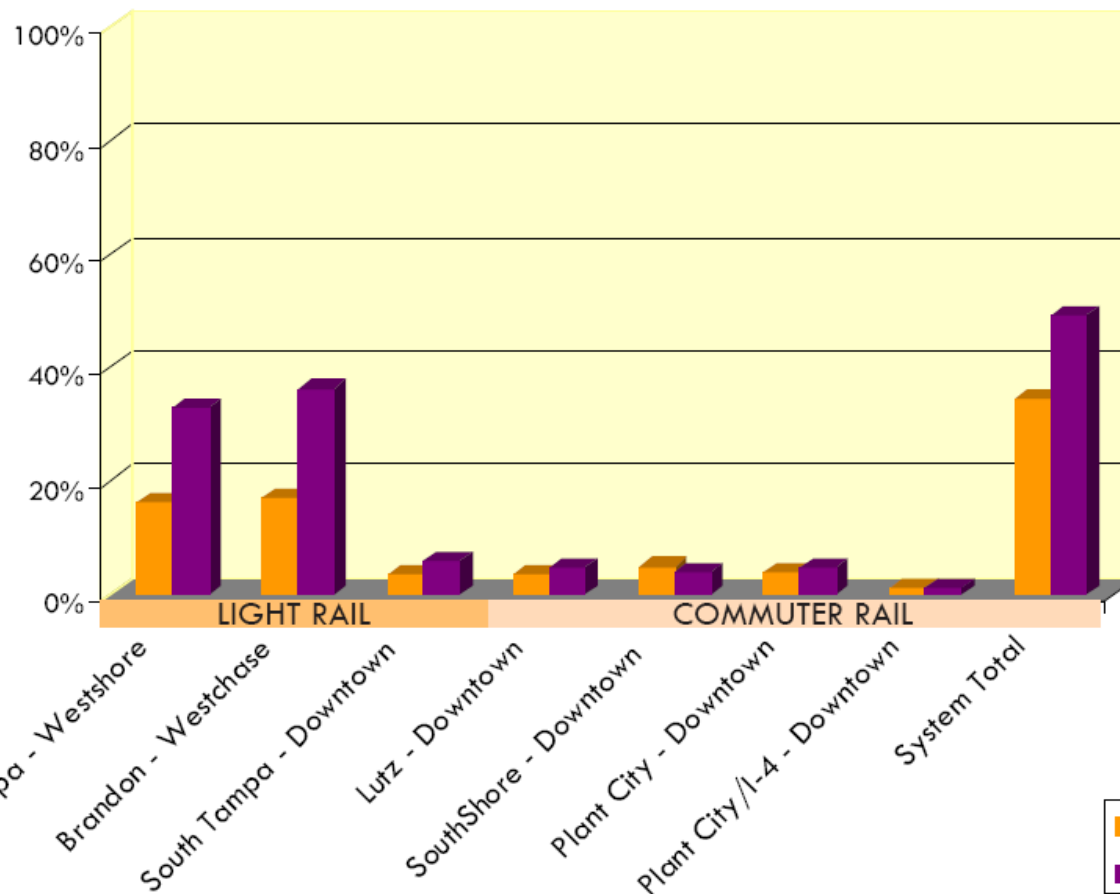
Total Households & Jobs Within One Mile for 2050



This figure illustrates the total projected households and jobs for the Transit Concept for 2050 that are located up to 1 mile from stations based on station type designation.



% of Total Households & Jobs Within Station Areas for 2050



2050 Total

▲ 34% of Households

▲ 49% of Jobs

Can be accommodated within 1 mile of stations

■ Households (% of Total 2050 Dwelling Units)
■ Employment (% of Total 2050 Jobs)

This figure illustrates the percentage of households and jobs projected for 2050 that are served by the Transit Concept for 2050 investment.



TRANSIT STUDY

Station Area Density: System Average

	Within 1/4 Mile of Stations		Within 1/2 Mile of Stations	
	DUs/ Acre	Jobs/ Acre	DUs/ Acre	Jobs/ Acre
	Existing Density	2	10	1
Projected Trend 2050 Density	3	16	3	11
Projected Transit Concept for 2050	11	38	8	20
Future Land Use Capacity	11	54	9	31

The capacity of Future Land Use Plans are supportive of Transit Oriented Development.



Potential Transit Ridership

Transit Corridor	Potential Ridership (Average Daily Trips)	Potential Ridership/ Mile
LIGHT RAIL		
New Tampa - Westshore/Pinellas County	21,000*	740*
Brandon - Westchase	24,000	750
South Tampa - Downtown	8,000	1,100
COMMUTER RAIL		
Lutz - Downtown	8,000	450
SouthShore - Downtown	8,000	290
Plant City - Downtown	8,000	300
Plant City/I-4 - Downtown	3,000	90
Total	80,000	3,720

*These ridership figures are not inclusive of ridership from Pinellas County.

Capital Cost Summary

Transit Corridor	Total Cost (Million Dollars)	Cost/Mile (Million Dollars)
LIGHT RAIL		
New Tampa - Westshore/Pinellas	1,871	62
Brandon - Westchase	1,597	69
South Tampa - Downtown	363	45
Light Rail Total	3,831	63
COMMUTER RAIL		
Lutz - Downtown	322	20
SouthShore - Downtown	688	26
Plant City - Downtown	537	21
Plant City/I-4 - Downtown	784	25
Commuter Rail Total	2,331	25
System Total	6,162	40

This table estimates the capital cost for the Transit Concept for 2050 based on 2007 dollars.

Operating & Maintenance Cost Summary

Transit Corridor	Total Cost (Million Dollars)	Cost/Mile (Million Dollars)
LIGHT RAIL		
New Tampa - Westshore/Pinellas	30	1
Brandon - Westchase	26	1
South Tampa - Downtown	8	1
Light Rail Total	64	
COMMUTER RAIL		
Lutz - Downtown	6	0.4
SouthShore - Downtown	7	0.3
Plant City - Downtown	9	0.3
Plant City/I-4 - Downtown	6	0.2
Commuter Rail Total	28	0.3
System Total	91	

This table estimates the operating/maintenance cost for the Transit Concept for 2050 based on 2007 dollars.

Next Steps

- ▲ MPO adoption on 11/06/07 - Done
- ▲ Incorporate into analysis for the LRTP update
- ▲ Offer input to the TBARTA plan

Hillsborough County MPO Transit Study

End of Presentation

