Thumbnail History of Boston

Urban Transportation Planning
MIT Course 1.252j/11.540j
Fall 2016

Frederick Salvucci, MIT Senior Lecturer
History of Boston Transportation and Analysis of Historical Developments

Courtesy of Axel Drainville on Flickr. CC BY-NC.
Pre 1620

- Glaciers
- Rivers
- Codfish
- Basques
- China (1421)
- Columbus (1492)
- Spice, Food, Tobacco
- Slaves
1630

- Charles River
- Mosquitoes
- Drinking Water
- People (Religious Minority)
- The Bible
Unusual Commitment to Education

- 1635: Latin School
- 1636: Harvard
- 1800s: Horace Mann
- 1865: MIT
1635-1776

Courtesy of the Library of Congress, Geography and Map Division. This image is in the public domain.
1635-1776

• Trade
• Fishing
• Ship Building
• Bad Soil
• Cattle
• Smuggling
• Tax Evasion
• Relations with “Indians”
• Military Relations with England, French, & Indians
1776 --> War of 1812 --> 1830s

- Trade
- Ship Building
- Slave Trade
- Ice
- Clipper Ships
- Filling of Mill Pond
- Canals

Courtesy of the Boston Public Library. This image is in the public domain.
1830s - 1870

This image is in the public domain.
1830s - 1870

- Erie Canal, Emergence of New York Port
- Filling South End, Back Bay
- Rail
- Bicycles
- War with Mexico
- Mills, Cloth: Waltham, Lowell
- Civil War
- Commuter Rail
- Street Cars
- Immigration (1848 Potato Famine)
1830s - 1870

Courtesy of the Boston Public Library Norman B. Leventhal Map Center. CC BY-NC-SA.
Immigration:
In America the streets are paved in gold

"San Gimignano" by Emiliano on Flickr. CC BY-NC-SA.
1870 - 1900

- Sprague & Siemens
- Streetcar Networking
- Electric Power
- 1894 First Auto in Hemisphere
- 1897 First Subway in Hemisphere
- Streetcar Suburbs & Downtown
- Olmstead, Sewer, Water, Park Acquisition

This image is in the public domain.
1900-1945

• Completion of core subway system
• 1914 World War I
• 1920’s; Model T, Auto Explosion, Zoning
• 1930’s; Depression
• 1940’s; World War II
• Subways and the Survival of Rail Transit
1945 - 1965 Postwar

- Oil, Autos, Highways, Suburbs
- Tobin Bridge, Storrow Drive, “Parkways”
- 1956 Interstate Highways
- 1957 Conversion of Riverside Line to LRV: Extension of Blue Line to Revere
- 1959 Southeast Expressway opens; Old Colony Rail closes
- Construction of Mass Pike, Jets come to airports, expansion of Airports
1945 - 1965 Postwar

• 1964 Expansion of MBTA
  – Orderly process for capital and operation subsidy
  – Orange Line tunnel under river
  – Red Line extension to Quincy
  – Destruction of parts of commuter rail system. Examples:
    ➢ North Station and South Station cut in half
    ➢ Old colony disrupted by Red Line
    ➢ Bedford branch
    ➢ Woburn
    ➢ Budd cars

• Transit and urban density
• Prudential, British properties, John Hancock
• Back Bay and Downtown
1965-1970

• 1960s Reaction to highways
• Boston Transportation Planning Review
• Enhance the City as the Priority
  – Stop Destructive Highways
  – Promote and Improve Transit
  – Control Parking
  – Promote Environmentally Benign Highways: The Big Dig
  – Environmental constraints on Logan growth
• Economy, Equity, Environment
• Clean Air Act, National Environmental Policy Act (NEPA), EPA (1970)
1970 - present

- Post-Office Square by the Friends of Post Office Square
- Park rededicated in 1997 as the Norman B. Leventhal Park at Post Office Square
1970 - present

- 1973 Interstate Transfer, Operating Subsidy (Federal)
- 1974 Reorganize MBTA
- 1968 - 1990 Diversification of highway construction industry
- 1978, 1982 Binding Arbitration Reform, management rights at MBTA
- 1991-present Big Dig; South Boston Transitway
  - Revise Mass Pike, MBTA
  - Continued commuter rail expansion
    - Pacheco Law
    - Silver Line
    - South Station bus terminal phase B
Where Next?

- Green Line Extension
- Silver Line missing link
- Blue Line (Blue to Red, Blue line to Lynn)
- Grand Junction Connection to North Station, OMU/EMU; West Station
- Inter city rail to Logan
- North to South Station rail
- Stuart Street
- Urban Ring
- Better bus service, transfers
Where Next?

- South Coast Rail
- Inman Route Amtrak
- Red Sox; Medical Complex; South Boston Waterfront District; Cambridge - Somerville
- Suburban sprawl
- Jack Spratt and his wife
- I-90, I-93
How to pay for it all?

• Federal context
• Local taxes
• Economic stimulus
• Austerity
Summary

- Land use
- Accessibility
- Economic Activity
- Equity
- Environment

- Sustainability
- Evaluation of what to do
- Effectiveness
- Financing mechanisms
- Efficiency
Which is the Chicken?  
Which is the Egg?

- Four-step process begins with current distribution of land use
- But land use redistributes based on transportation
- EIR of land use as a policy tool with unintended consequences
- Tax code; location-efficient mortgage; university transit passes; employer requirement
- Elderly and disabled services, youth market, poverty
- Accessibility as a right:  
  – Access to facilities
  – Access to Society
- Accessibility vs. mobility:  
  – Individual or institutions at the center?
- "Value-capture" Henry George
  – Different rules for highways and transit
Leadership

- Sprague
- Jenney
- Volpe
- Sargent
- Kennedy
- O’Neil
- Altshuler
- Dukakis
- Kiley
19-Step Process