

Lesson 6

Corridor Planning



Learning Outcomes

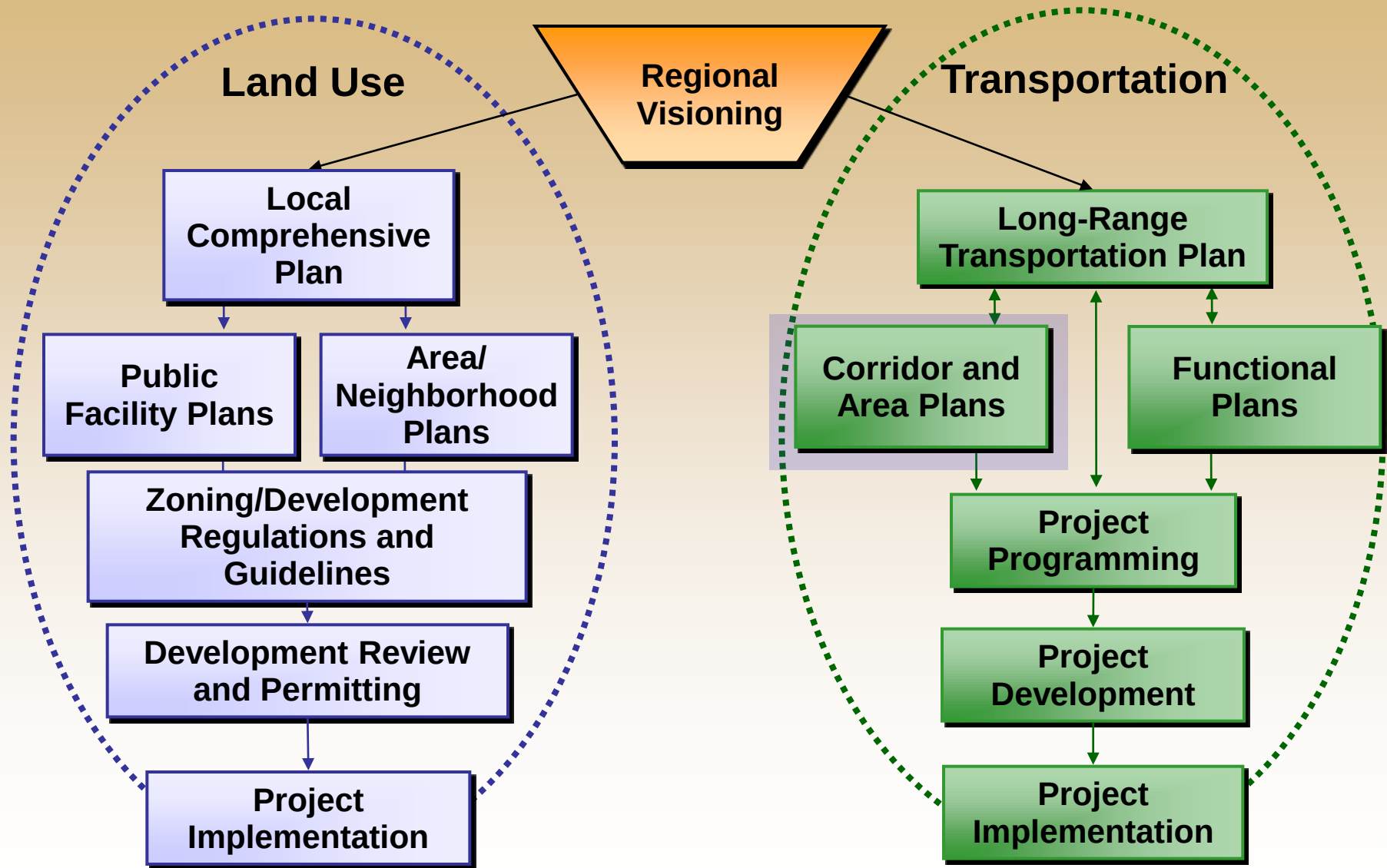
- ▶ Identify land use strategies and solutions that can be incorporated into multimodal transportation corridor plans
- ▶ Identify land use stakeholders and describe methods for involving these stakeholders in transportation corridor planning efforts
- ▶ Describe the tools available for implementing land use strategies at a corridor level
- ▶ Describe the benefits of specific corridor strategies

Lesson 6:

Corridor Planning

- ▶ **6.1 Corridor Planning Overview**
- ▶ 6.2 Strategies
- ▶ 6.3 Planning Process and Methods
- ▶ 6.4 Implementation
- ▶ 6.5 Case Studies

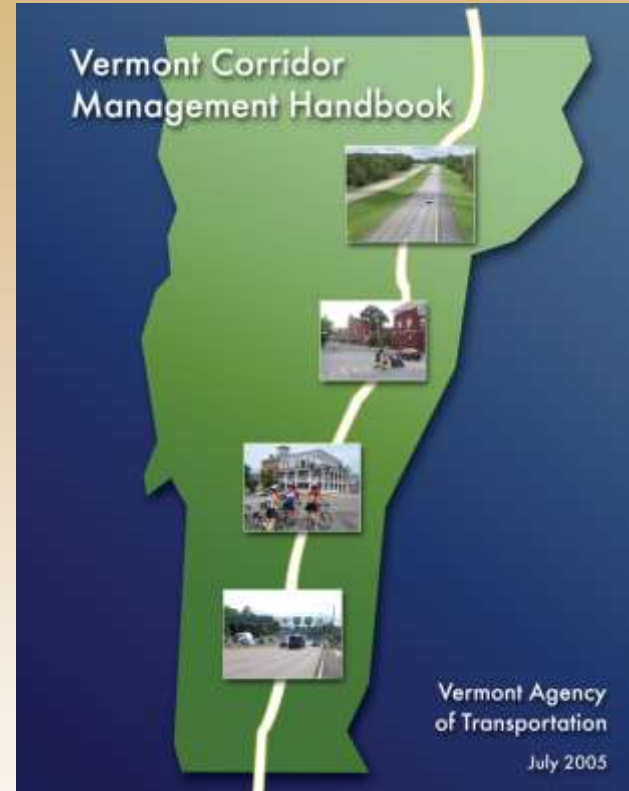
How it All Fits Together



What is a Corridor?

“A broad geographic band ...
connecting population and
employment centers...
served by various
transportation modes...
within which person and
freight, travel, land use,
topography, environment
and other characteristics
are evaluated.”

- Vermont Agency of Transportation



What makes a Corridor 'Smart' ?

- ▶ A corridor that 'multi-tasks'
- ▶ A corridor that balances demands for mobility, economic viability, environmental quality and livability
- ▶ A corridor that integrates land use and transportation dynamics
- ▶ A corridor that provides transportation choices, that recognize the range of social and economic groups and their needs
- ▶ A place that is attractive, inviting and environmentally friendly

Range of Contexts

Urban



Mature Suburban



Rural/Small Town

Emerging Suburban

Range of Functions

Main Streets

Passing Through the Countryside



Linking Communities Together

Range of Purposes

New Corridor



Omro, WI



Redevelopment

Expansion



Preservation

Kentucky
Transportation Cabinet

Purpose of a Corridor Plan?

- ▶ Establish a vision for transportation and land use
 - ✓ Long-term: Anticipate and address problems *before* they occur
 - ✓ Short-term: React to and manage problems
- ▶ Evaluate full range of strategies
- ▶ Identify specific projects, strategies and actions for more detailed analysis and implementation

Traditional Corridor Planning

- ▶ Examines transportation systems within corridor and identifies improvements to meet long-term needs
- ▶ Conducted between the long-range transportation plan and project development
- ▶ Heavily influenced by safety and mobility needs
- ▶ Led by engineers

Smart Corridor Planning

- ▶ Multi-discipline; incorporates transportation planning, land use planning, landscape and urban design
- ▶ Fully integrates land use and transportation planning activities and stakeholders
- ▶ Is sustainable over the long term by creating streetscapes and transportation mode options
- ▶ Recognizes that corridors create communities and places for social interaction

Why Plan at the Corridor Level?



Key Players

- ▶ State DOTs and Transit Agencies
- ▶ MPOs
- ▶ County & Municipal Staff
- ▶ Elected Officials
- ▶ Redevelopment Authorities
- ▶ Civic Associations
- ▶ Special Improvement Districts
- ▶ Developers

Revitalization & Economic Development

- ▶ Traditionally, commerce was conducted on Main Streets

- ▶ Today, corridors must transform to remain competitive



- ▶ Mixed-use corridors have built-in advantages to ensure economic success

Getting the Right Mix

- ▶ A mix of residential and offices uses creates a captive market for retail



Source: www.pedbikeimages.org/ Dan Burden

Multi-Modal Settings

- ▶ Provide stronger market support for office and mixed-use development than auto access alone



Source: www.pedbikeimages.org/ Dan Burden

Infill Opportunities



- ▶ Infilling vacant and underused properties with new uses can stimulate revitalization

Regaining Economic Competitiveness



- ▶ Improve the appearance of the streetscape
- ▶ Strengthen safety and maintenance
- ▶ Attract new businesses
- ▶ Promote area to potential customers

Economic Success

- ▶ Recognize and build upon a corridor's distinct assets



Return on Investment

- ▶ More community assets
- ▶ More tax revenue
- ▶ Improved real estate performance





Case Study

Baltimore Avenue Corridor Revitalization Plan

Philadelphia and Delaware County,
Pennsylvania

Project Location

Case Study



A Once Thriving Corridor

- ▶ Baltimore Pike is now struggling to define its identity and restore its economic viability
- ▶ Corridor varies from highly urban setting to Main Street inner-ring suburb to post-war shopping center



Plan Purpose

- ▶ To enhance future livability and promote economic redevelopment along Baltimore Avenue by preserving community character and improving accessibility



Elements of Plan

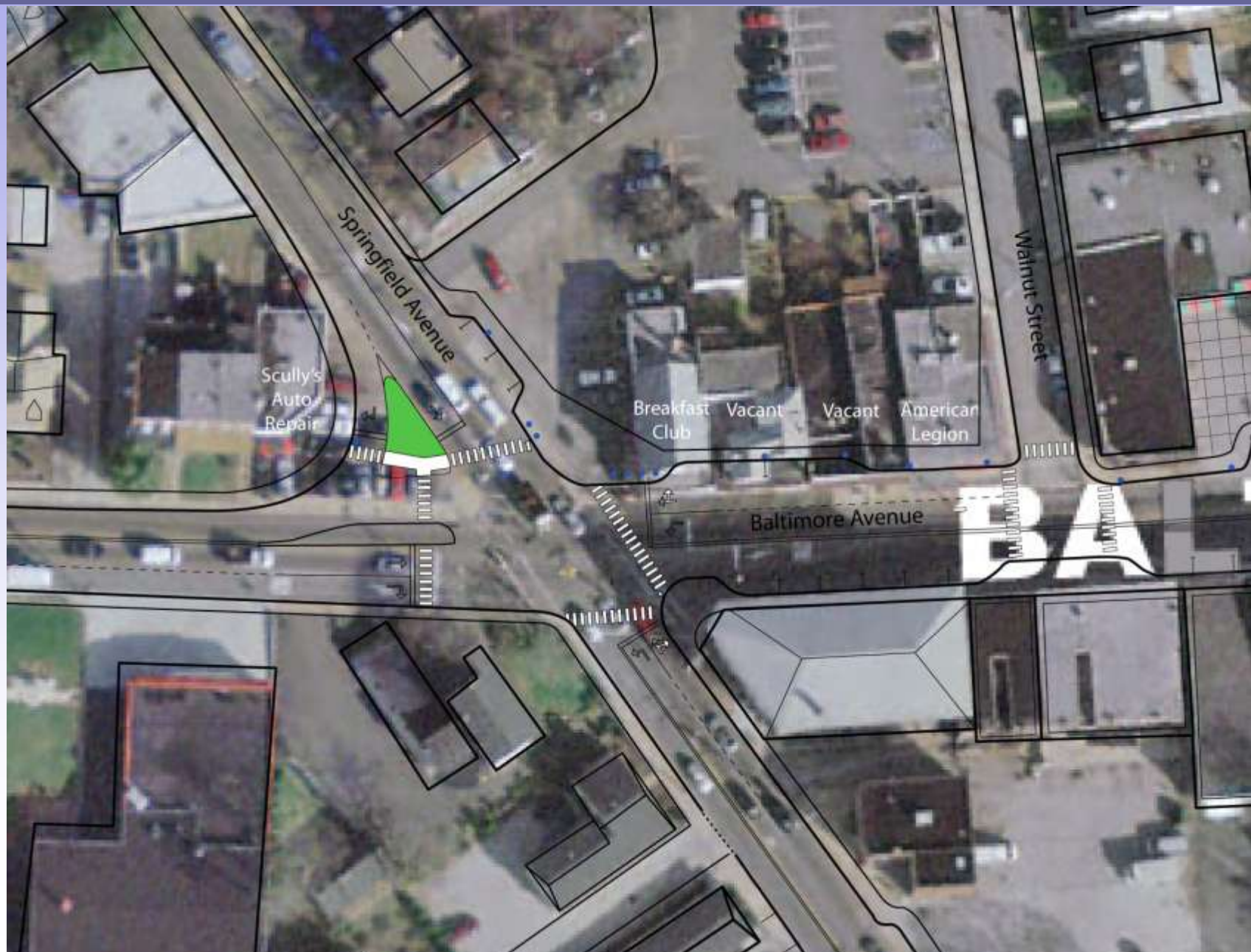
- ▶ Corridor-wide traffic, transit and streetscape recommendations
- ▶ Focused site plans for six priority areas – catalysts for future reinvestment
- ▶ Sequenced implementation strategy



Case Study



Intersection Reconfiguration



Case Study

Priority Area Visualization

► Proposed



Follow through Actions



Case Study

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Range of Strategies

Low Capital



High Capital

- ▶ Land use
- ▶ Minor operational improvements
- ▶ Alternative mode improvements, TDM
- ▶ Access management
- ▶ Local street networks
- ▶ Road widening, grade separation, bypass
- ▶ Fixed-guideway transit

Land Use Strategies

- ▶ Clustering of development – location, density, diversity, design
- ▶ Building and site design
- ▶ Parking management
- ▶ Access management
- ▶ Land preservation/development rights
- ▶ Corridor preservation/right-of-way acquisition

Transportation Strategies

- ▶ Roadway and intersection design
- ▶ Traffic operations
- ▶ Provision for transit, pedestrian, and bicycle treatments
- ▶ Parallel/alternative facilities, routes
- ▶ Local street networks
- ▶ Transit services and TDM
- ▶ Freight operations and intermodal

Consider New Approaches

- ▶ **Issue:** Traffic delays at signalized intersections
- ▶ **Conventional solution:** Condemn adjacent buildings and widen intersections to add travel and turning lanes
- ▶ **Smart Transportation Solutions:**
 - ✓ Improve surrounding roadway network so motorists have more options
 - ✓ Provide transit-friendly land use mix so travelers have more options

Exercise:

Corridor Planning

- ▶ Divide into groups
- ▶ Each focus on one corridor context
 - ✓ Urban
 - ✓ Developing suburban
 - ✓ Rural/small town
- ▶ What are some of the issues/concerns associated with this corridor?
- ▶ Which strategies would you apply to address these issues?

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Process and Methods

for Coordination at Local Level

- ▶ State enabling legislation for interjurisdictional cooperation
- ▶ State comment on local plans/zoning
- ▶ Coordination with other State/regional agencies to provide planning assistance for access control
- ▶ Project-by-project and MPO meetings
- ▶ Regular meetings with city officials
- ▶ Work together on land development permits/agreements

Corridor Planning and Analysis Tools

- ▶ Land use forecasting models
- ▶ Traffic forecasting models
- ▶ Traffic operations and simulation models
- ▶ Sketch-plan impact analysis tools
- ▶ GIS data overlays
- ▶ Visualization techniques
- ▶ Market analysis

Related “Subarea” Planning Efforts

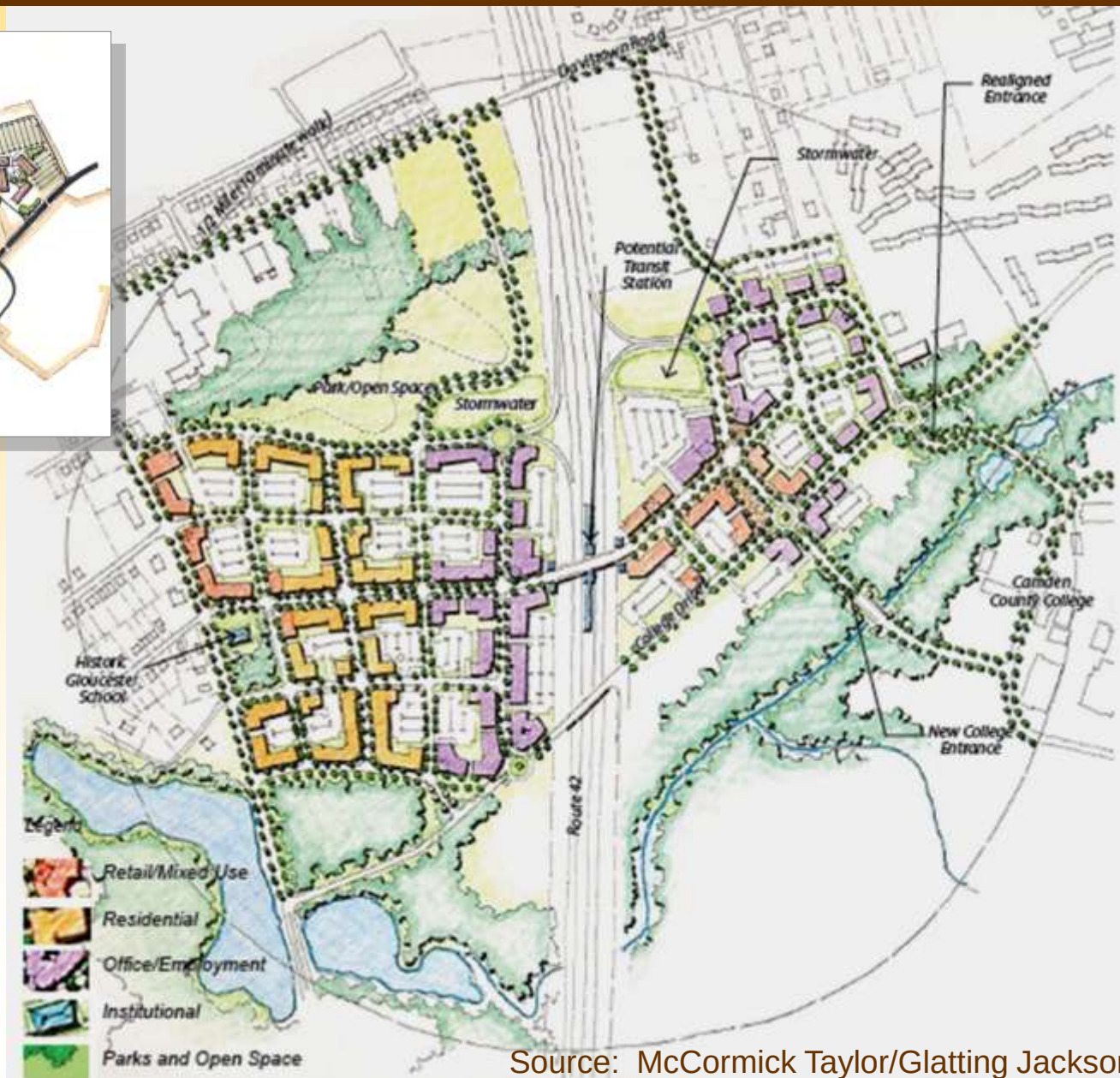
- ▶ Downtowns/ business districts
- ▶ Neighborhoods
- ▶ Activity centers
- ▶ Transit station areas
- ▶ Interchange areas

Case Study

Interchange Planning Black Horse, New Jersey

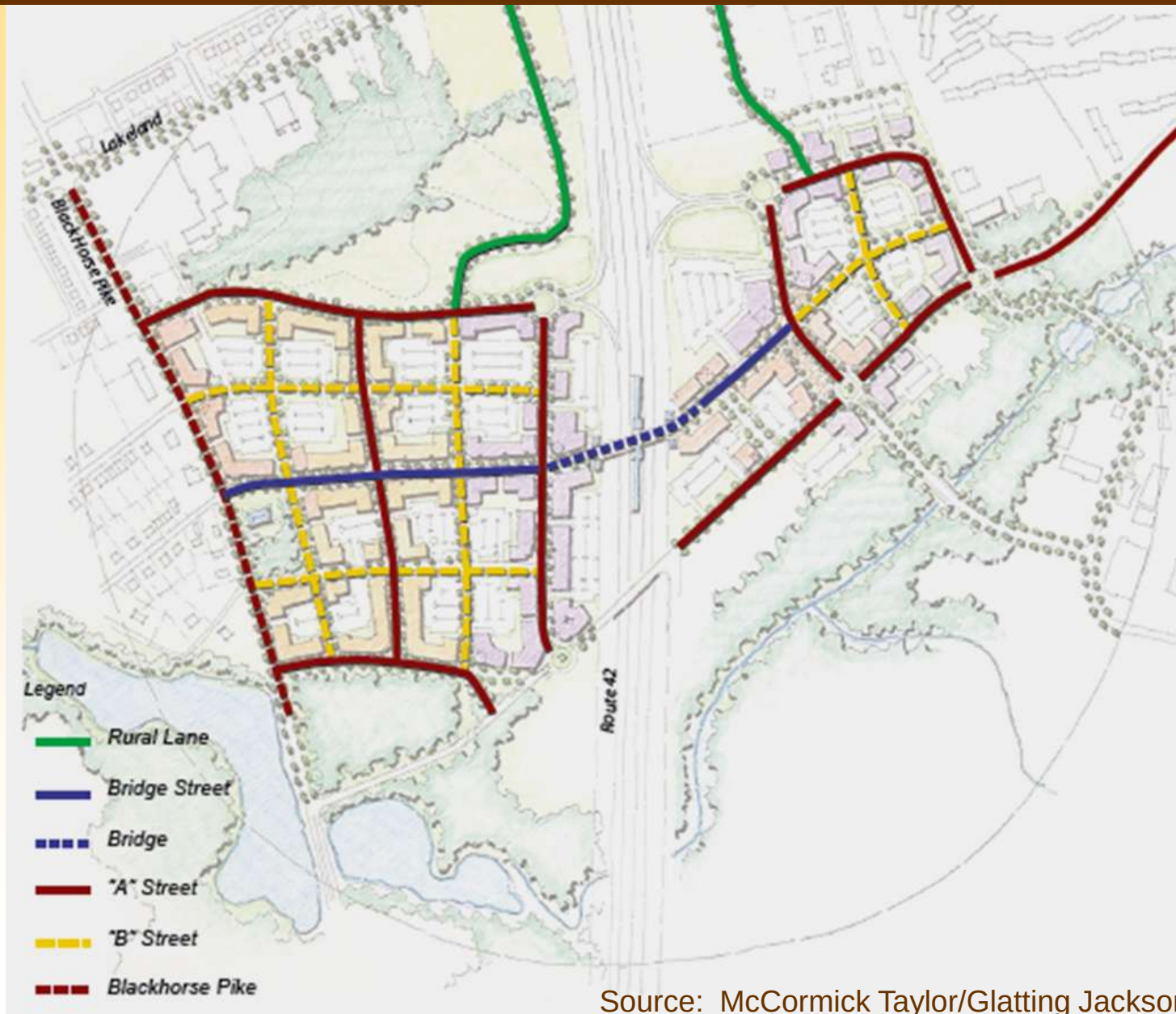


Conceptual Design Plan



Source: McCormick Taylor/Glatting Jackson

Street Typologies



Source: McCormick Taylor/Glatting Jackson

Planned-in Transit



Source: American Planning Association

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Implementation Tools:

Land Use

- ▶ Amend local comprehensive plans and zoning
- ▶ Corridor zoning overlays
- ▶ Parking standards and management plans
- ▶ Design review process
- ▶ Driveway/access permitting
- ▶ Impact review and mitigation requirements
- ▶ Purchase or transfer of development rights

Implementation Tools:

Transportation

- ▶ More detailed study/plan – access management, streetscape, transit, intersection study, etc.
- ▶ Project implementation
 - ✓ Capital projects
 - ✓ Traffic operations
 - ✓ Programs and services – transit, TDM, etc.
- ▶ Revise design standards/guidelines
- ▶ Change functional class or ownership

Implementation Process Considerations

- ▶ Key implementation plan elements (roles & responsibilities, timeframe, funding)
- ▶ Implementation oversight committee and monitoring
- ▶ Endorsement/adoption of plan by key agencies
- ▶ Inter-agency review
- ▶ Intergovernmental agreements
- ▶ Ongoing education and outreach

Potential Funding Sources

for Implementation

- ▶ Federal and State transportation funds
- ▶ Municipal budgets
- ▶ Developer fees, contributions, and built roads
- ▶ Special assessment districts
- ▶ Tax-increment finance (TIF) revenues
- ▶ Parking fees
- ▶ Joint development

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Case Study

Transit Corridor Planning Eugene, Oregon

Franklin EmX Bus Rapid Transit

- ▶ Preferred transit strategy determined by regional transportation planning process
- ▶ Cost effective solution
- ▶ System the community can grow with



Case Study

Corridor Objectives

- ▶ Be competitive with auto
- ▶ No increase in auto travel time
- ▶ No impact to street trees
- ▶ Minimize displacements
- ▶ Enhance pedestrian/bicycle facilities
- ▶ Enhance corridor and improve landscaping
- ▶ Gain approval from all jurisdictions
- ▶ 100% Exclusive right-of-way

Source: Lane Transit District



Case Study

Runningway Configurations

- ▶ Median, One-way lane – curb separated
- ▶ Median, Bi-directional lane – curb separated
- ▶ Median, Bi-directional –no barrier
- ▶ Curb side, Bi-directional –no barrier
- ▶ Curb side, One-way lane - no barrier
- ▶ Mixed traffic operation

Emulates a Light Rail System

Case Study

Element	Included	Planned
Exclusive transitways	✓	
Transit Signal Priority	✓	
Wider Stop Spacing	✓	
Near-Level Boarding	✓	
Eliminate On-Board Fare Collection	✓	
Improved Stops and Stations	✓	
Real-Time Passenger Information		✓
Unique Vehicle Design	✓	
Precision Docking		✓
Lane-Keeping System		✓
Unique Identity	✓	

Cost Effective Solution

- ▶ Cost is \$6 million per mile (versus \$50 million for light rail)
- ▶ Lower operating costs per rider than regular bus



Case Study

Transit Lanes

Case Study



Source: Lane Transit District

Additional NHI Training

NHI-142050

Introduction to Context Sensitive Solutions

NHI-139001

Integrating Freight in the Transportation Planning Process



Additional NTI Training

Characteristics and Planning of Bus Rapid Transit (BRT)



Review

- ▶ List **three** examples of land use *strategies* to improve transportation conditions in a corridor
- ▶ List **three** land use *tools* (i.e., a regulation or process) for implementing a corridor plan's recommendations
- ▶ List **two** methods for interagency coordination in a corridor planning process
- ▶ List the key elements that should be addressed in a corridor implementation plan