LAND USE & TRANSPORTATION

Description

Land uses play a significant role in the planning and implementation of all modes of transportation, but it may be one of the most underappreciated factors when designing and planning transportation. The impacts of land use decisions can add time and money to any transportation project, or can change the volume of travelers using a road or a transit route. Many communities and cities in Texas are growing much faster than the infrastructure, and planning, building, and maintaining infrastructure comes at a cost. Problems with rapid growth include an increase of vehicle miles traveled (VMT), increase in traffic accidents, and communities that lack accessibility (for pedestrians and bicycles).

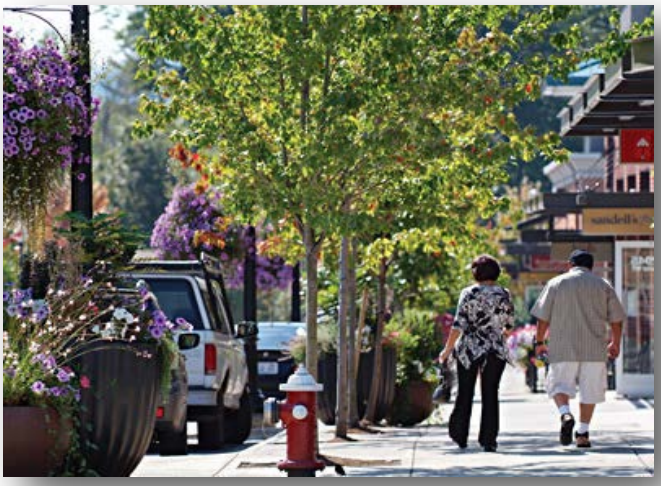
As cities have expanded, so have the distances that people travel to access employment, retail, and recreation. Several factors also encourage dispersed development, including: automobiles, highways, school quality, telecommunications, amenities of low-density neighborhoods, and land costs. Smart growth planning can aid in the integration of more accessible transportation modes as well as enhance regional mobility.

Target Market

There is no single target market for land use considerations. Land uses must be considered at all levels, including smart growth planning for communities in suburban areas, rural areas, and even central business districts.

How Will This Help?

- Adequate land use can reduce the number of single occupancy vehicles on major freeways and highways.
- Good design can enhance the quality of life and create a sense of community.



Cost:	●●●○○
Time:	**Short-Long**
Impact:	**Region**
Who:	**City/State**
Hurdles:	**Public Buy-in, Changing Perspectives**

- Planning land uses and transportation together creates safer, more walkable environments.
- Designing local and regional land uses with accessibility in mind can create more opportunities for access to jobs and shopping, which can greatly influence the local economy.

Implementation Examples

Virginia: The Rosslyn-Ballston Corridor in Arlington, Virginia, has a series of high density and mixed use developments within ¼–½ mile of the Clarendon Washington Metro station. This area is known for large employers, shopping, restaurants, and other commercial areas that are easily accessible from the Metro.

Texas: DART constructed the Mockingbird Station in conjunction with an array of land uses, including multi-family housing and retail. The

station is one of the more successful mixed-use developments in the state.

Colorado: Denver has one of the first implemented form-based codes (FBC), setting an example for other cities and regions. The Riverfront Commons FBC is considered to be a national model in early form-based codes, as there was extensive support for the code implementation at both the private and public levels (see photo, right). The commons FBC is also considered to be a good example because the code was written in a very specific and detailed manner, leaving little interpretation.

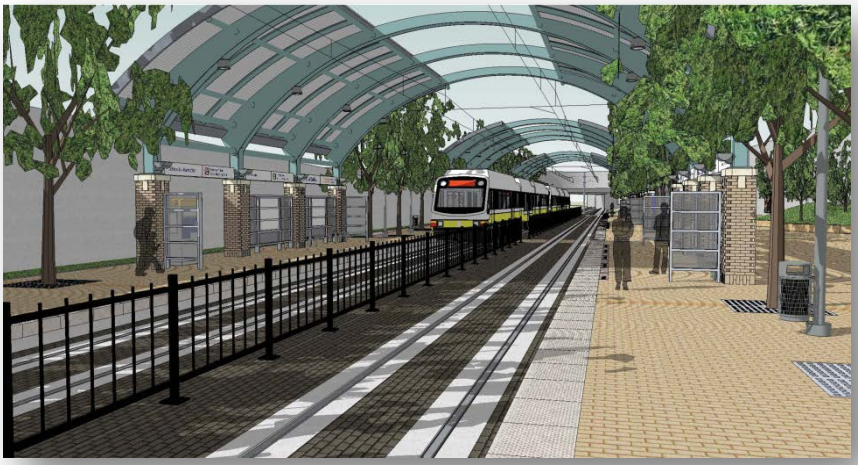
Riverfront Park, Denver, CO

Application Techniques and Principles

There are several means of applying land use strategies for cities and regions. First and foremost, it is crucial to have a long-range plan for the region. Some regions have specific long-range transportation plans that provide a strong framework for future transportation and land use considerations, and some even have detailed mixed use development plans for specific areas of the city. There are several strategies that may be used, including smart growth, form-based codes, and transit oriented development (TOD).

Smart growth is an urban planning and transportation theory that concentrates growth in compact walkable urban centers to avoid sprawl. It advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, streets with sidewalks and bicycle lanes, and mixed-use development with a range of housing choices. Smart growth values long-range, regional considerations of sustainability over a short-term focus. Its goals are to achieve a unique sense of community and place; expand the range of transportation, employment, and housing choices; equitably distribute the costs and benefits of development; preserve and enhance natural and cultural resources; and promote public health.

Form-based code is a means of regulating development to achieve a specific urban form. Form-based codes create a predictable public realm by primarily controlling physical form, with a lesser focus on land use, through city or county regulations. FBCs are a new response to the modern challenges of urban sprawl, deterioration of historic neighborhoods, and neglect of pedestrian safety in new development. Cities and neighborhoods no longer develop in the traditional ways they once did, and the widespread adoption of single-use zoning regulations has discouraged compact, walkable urbanism. Form-based codes are a tool to address these deficiencies, and to provide local governments the regulatory means to achieve development objectives with greater certainty.



University of Dallas Transit Station, DART

For more information, please refer to: http://mobility.tamu.edu/mip/strategies.php.

Transit oriented development is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighborhood typically has a center with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward. TODs generally are located within a radius of ¼–½ mile from a transit stop, as this is considered to be an appropriate scale for pedestrians.

Issues

Implementation issues may vary depending on where the land use planning is being considered. Some areas may have historical significance, so it is critical for planners to be mindful of areas that are protected by specific ordinance. Some areas may also be sensitive due to environmental justice or political concerns. The environment may come into play when planning for certain areas. Wetlands and endangered species may hinder planning efforts, and it is important for planners and developers to be mindful of the requirements set forth by the National Environmental Policy Act (NEPA).

A focus on land use development may present several issues, including stakeholder and public buy-in, lack of funding, sustainability, and lack of regional support. Local jurisdictions must have a plan that the public supports before moving forward with future developments.

There are many key players in the planning and development of local and regional land uses. The major players include cities (who traditionally control land use regulations), TxDOT, metropolitan planning organizations (MPOs), regional planning agencies, councils of government (COGs), local transit providers, local jurisdictions, tribal governments, and U.S. government agencies. Other players may include local neighborhoods, religious organizations, developers, and major retailers.

Project Timeframe

The project timeframe varies based on the type and scale of project being implemented. All projects typically follow the same number of steps as follows:

- Visioning and goals.
- Future needs.
- Land use forecasting.
- Potential solutions.
- Long-range plan development.
- State Transportation Improvement Plan and local Transportation Improvement Plan (STIP/TIP) process.
- Project solutions.
- Monitoring and evaluation.

Cost

Costs vary greatly depending on the type of plans being considered. Cities and regions can tap into funding available at the federal, state, and local levels. The Federal Highway Administration (FHWA) offers several funding streams for various transportation needs,

Urban Transect Model, Congress of New Urbanism

For more information, please refer to: http://mobility.tamu.edu/mip/strategies.php.

including bridges, interstate maintenance, and recreational trails. The Federal Transit Administration offers funding for planning purposes, urban and rural transportation, and specialized public transportation (e.g., older adults and persons with disabilities). In some areas, state and local match for federal funds may be obtained through a state gas tax or general funds, sales tax dedication, property taxes, bonding, and development fees. Other sources of funding include tolls and fares.

Data Needs

Planners should collect demographic and regional data necessary for developing short and long range plans. Data considerations typically include population growth statistics, population projections, major employment centers, and transportation (including location of major corridors and available transit).

Land Use & Transportation Best Practices

- Type of Location: The land use tools described above can work in both rural and urban settings, but do require well-thought-out development and planning, including employment, transportation, and housing.
- Agency Practices: For the land use tools to work, it is important to not only have interagency coordination, but also coordination with private developers and businesses.
- Frequency of Reanalysis: Land use treatments should be examined every few years, as population changes and development occurs.
- Supporting Policies or Actions Needed: Implementation of local policies in support of a specific type of development, such as form-based code.
- Complementary Strategies: Public and stakeholder involvement is critical to the success of any land use treatments.

For More Information

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