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16. Abstract

Smart growth is planned growth that integrates land use and transportation to create urban development that conserves resources and improves quality of life while providing adequate mobility. This presenter's guide is part of workshop materials that assist the Texas Department of Transportation (TxDOT) in disseminating information on smart growth principles, practices, and applications to state, regional, local planners, engineers, transportation professionals, and other interested parties.

A workshop presentation on smart growth was developed in PowerPoint® form and is included with this guidebook on CD-ROM. A hard copy is available as a participant's workbook. To reinforce the principles of smart growth and to introduce the smart growth design process, the workshop includes a hands-on case study to teach the practical application of smart growth in a simulated situation. Included in the workshop materials are workbooks for the instructor and workshop participants.

The purpose of this guidebook is to assist a presenter in preparing and delivering the workshop instruction.

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INTRODUCING SMART GROWTH TO TEXAS: INSTRUCTOR'S GUIDEBOOK

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Research Report 5-4238-01-P5
Project Number 5-4238
Research Project Title: Promoting Smart Growth Texas Style

Sponsored by the
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DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the U.S. Department of Transportation, Federal Highway Administration, or the Texas Department of Transportation. This report does not constitute a standard, specification, or regulation.

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This project was conducted in cooperation with TxDOT and the Federal Highway Administration (FHWA).

PRESENTER INFORMATION

This guidebook provides materials to support a workshop or seminar to introduce participants to smart growth.

Workshop Objectives

The objectives of the workshop as presented herein are to:

- Introduce participants to smart growth
- Provide examples of smart growth concepts, policies, and projects
- Enable participants to work effectively with others pursuing smart growth within their communities or agencies

Duration

This workshop is intended to utilize either approximately ½ day or a full day:

- ½ day without the case study and discussion (e.g., 8:00am – 12:30pm)
- full day with case study and discussion (e.g., 8:00am – 4:00pm)

The durations may be adjusted based on areas of emphasis desired by sponsor or presenter.

Materials Provided

Materials supplied in this guidebook include:

- PowerPoint presentation (on CD-ROM disk inserted in binder)
- Hard copy of slides with explanatory notes for presenter (presenter is assumed to have a working knowledge of smart growth)
- Primer describing smart growth (workshop participants also have this in their workbooks)
- Case study with solutions (participants have case study and extra maps, but not solutions; presenters should make copies of solutions to hand out to participants)

Presenters are encouraged to add material that may meet the desires of workshop sponsors. However, any changes should also be incorporated into the participant workbooks.

Suggested Time Allocations

The following are suggested allocations of time to be spent on each section. Presenters should feel free to adjust these as needed based on the level of familiarity of participants with smart growth and specific emphasis desired by workshop sponsors. Time for breaks and lunch are not included; it is suggested that 10-15 minute breaks be provided at approximately two-hour intervals.

Section	Slide No.	Duration (min.)
Introductions	1-2	15
Purpose and background	3-8	15
Definition and characteristics	9-24	20

Land use – transportation relationships	25-35	20
Why some agencies are pursuing smart growth	36-60	40
Examples of smart growth projects	61-81	30
Roles of smart growth in transportation	82-91	20
Examples of smart growth in transportation	92-102	10
What other states are doing	103-108	15
Some things TxDOT is already doing that supports smart growth	109-116	20
Lessons learned by other DOTs	117-121	15
Case study introduction and explanation	122-127	20
Participant development of case study solutions	—	60
Case study group presentations, instructor's solution, and discussion	128-133	60
General discussion, wrap up, and participant completion of evaluation form provided by sponsor	134-135	30
Total duration excluding breaks and lunch	250 minutes without case study 390 minutes with case study	

Red periods have been inserted at the end of text on some slides. These designate convenient transition points for teams of two speakers. However, there is no reason why transitions between speakers cannot be made at other points.

Contents of Participant Workbooks

Each participant should be provided with a participant's workbook, which has been supplied to TxDOT. The workbook contains:

- Hard copies of PowerPoint slides (without presenter notes)
- Primer
- Case study problem and maps on which to sketch

Presenters should add any additional material to be covered.

Sponsor Workshop Evaluation Form

The sponsor may request that a workshop evaluation form be completed by the participants, presenter, or both. The presenter should obtain and provide sufficient copies for completion by each participant and request that they be completed and handed in before departing the workshop site. Forms should be handed out during the last section of the workshop. Completed forms should be submitted per sponsor request.

For Further Assistance

Presenters who wish further information or assistance may contact Brian Bochner or Robin Rabinowitz, developers of this workshop, as follows:

- Brian Bochner – tel: 979-458-3516, e-mail: b-bochner@ttimail.tamu.edu
- Robin Rabinowitz – tel: 979-845-5932, e-mail: r-rabinowitz@ttimail.tamu.edu

Title slide

Provide description of how you will run the seminar. Discuss:

•schedule, agenda,

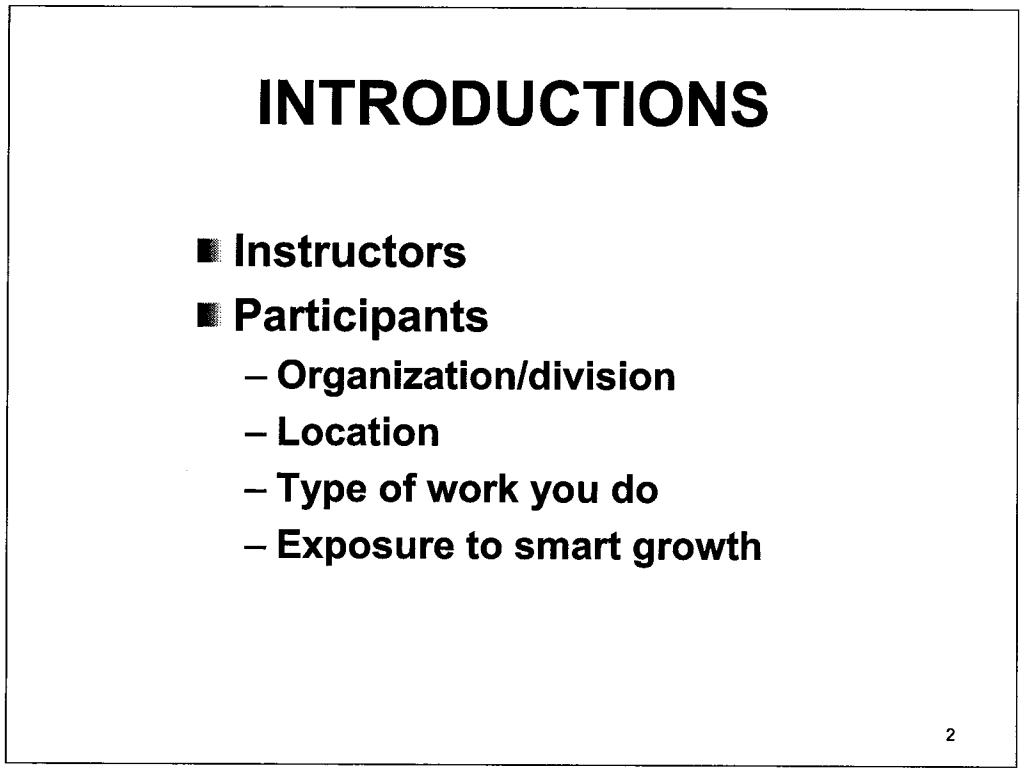
•materials participants should have received at check-in or on their desks,

•break arrangements,

•locations of restrooms,

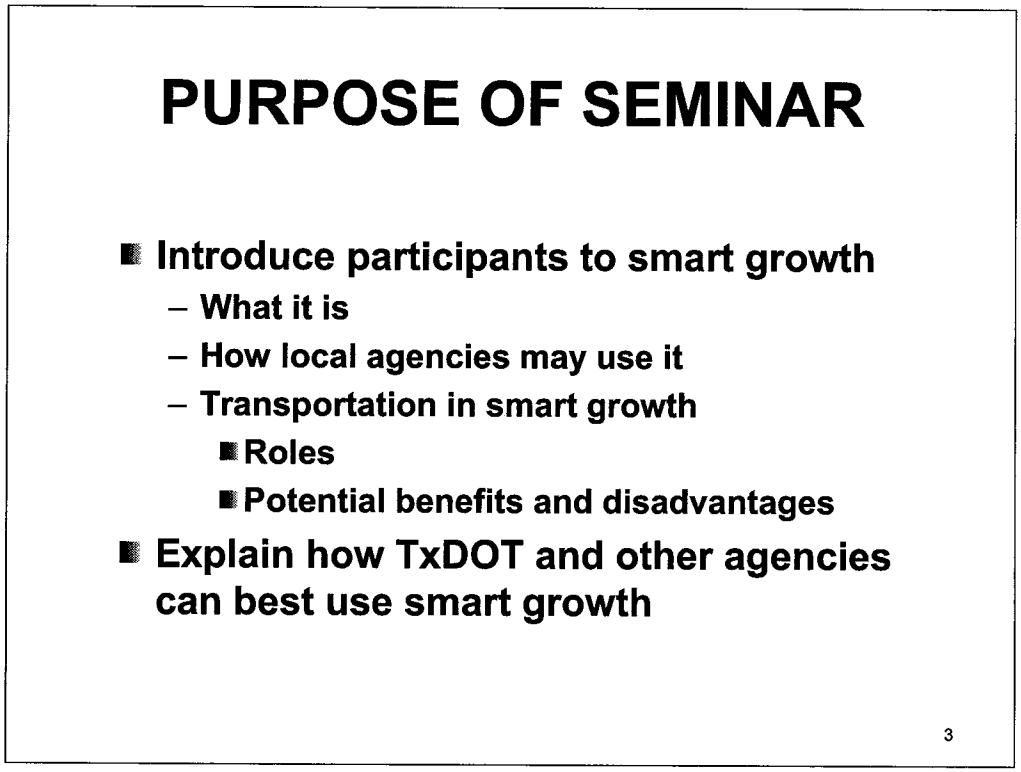
•meal arrangements,

•other items as applicable.



Introduce yourself(s) and describe your background relative to smart growth.

Have seminar participants introduce themselves, their employment affiliation, work role/responsibilities, and prior smart growth exposure or experience.



This seminar is intended as a basic introduction to smart growth. We will learn what smart growth is, and … (refer to slide).

Why Smart Growth?

- **Congestion**
- **Contributing sprawl**
- **Cost of "building out of congestion"**
- **Concerns about quality of life**

4

•Congestion – increasing in urban areas due to continuing increase in vehicle miles of travel (VMT) per capita as well as continued growth in population and jobs

•Contributing sprawl – urban areas continue to spread out as people seek newly developing areas and lower land costs; development is skipping over undeveloped land to reach available or desired locations

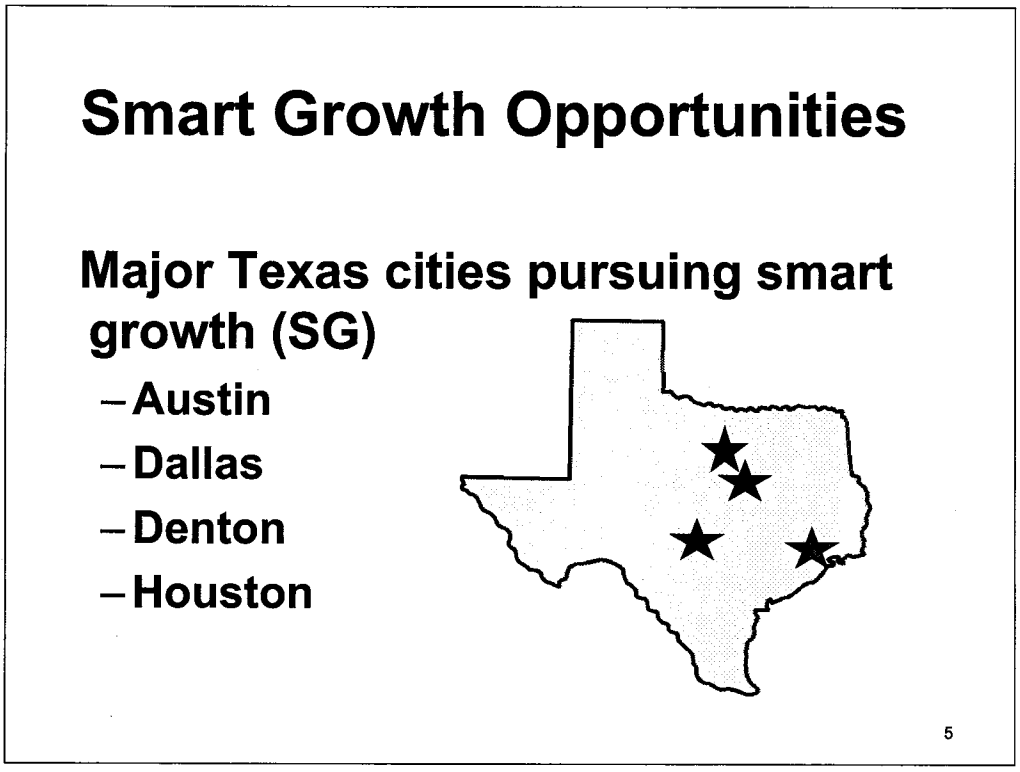
•Cost of "building out of congestion" – transportation agencies are finding that they do not have the financial resources nor is there sufficient right-of-way to build enough transportation facility supply to meet continuingly growing needs

•Concerns about quality of life – there is increasing concern about how quality of life and health is being affected by increasing congestion, traffic intruding into residential neighborhoods, high traffic speeds, loss of open space, dependence on driving, more time spent in traffic and less with family, loss of walking opportunities, air pollution, etc.

Potential questions to engage audience in discussion:

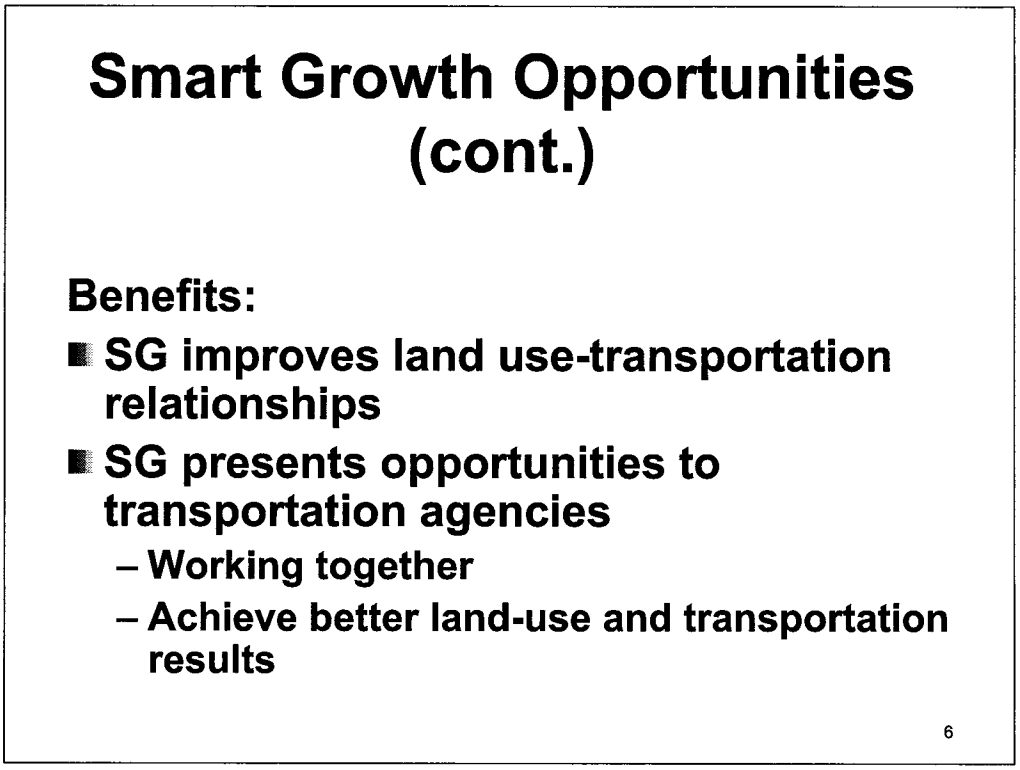
•Does your community have concerns about these or related topics?

•What other growth issues does your community face?



Origins – TxDOT saw emergence of smart growth in some communities as well as states across the country and wanted to make sure that TxDOT and others could get a basic understanding of what smart growth is, how it works, and how it might be supported and used by agencies with transportation responsibilities.

In Texas, many cities, including Austin, Houston, and the Dallas-Fort Worth area (including Denton, Plano, Addison, and others), have begun developing according to smart growth principles for density, compactness, and a mix of land uses. We will see some examples of these developments later in this presentation.



Smart growth involves land use-transportation relationships and, therefore, involves agencies at different levels working together. This seminar is intended to facilitate working together in an informed and constructive manner.

Smart Growth Opportunities (cont.)

- This workshop is intended to help transportation and other planning professionals:
  - Understand the basics of SG
  - Better understand land use-transportation relationships
  - Work better with local agencies to meet objectives
  - See how SG may affect transportation-related decisions
  - Learn how SG can benefit both you and other agencies

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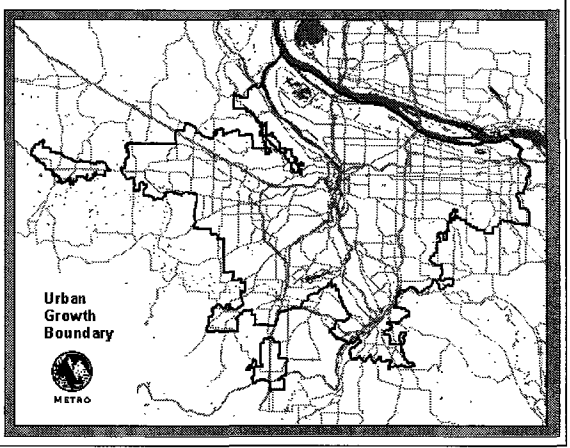
Self explanatory

Smart Growth

Goals may be set at these levels

- Statewide
- Regional
- Local

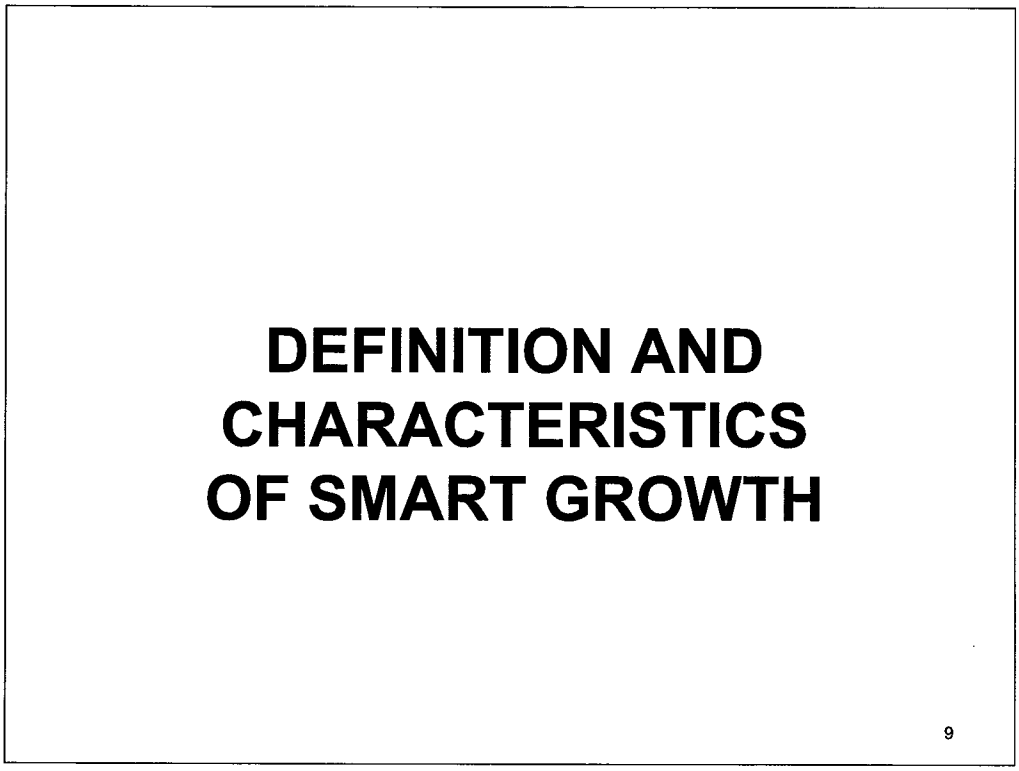


Smart growth goals may be set by the state if applied statewide or by regional and local agencies if applied locally.

Generally any state-led smart growth initiative must be accompanied by local programs to accomplish smart growth since local agencies rather than the state have jurisdiction over land-use control.

Maryland and Oregon are two states with aggressive statewide smart growth programs.

Map is of Portland, Oregon's, Urban Growth Boundary (UGB). UGBs for two small nearby communities are also shown.



Smart growth is an integrated approach to development that seeks to allocate public infrastructure investments in such a way that economic, mobility, social, and environmental interests are balanced to achieve sustainable growth.

The following section describes smart growth and its characteristics.

Smart Growth

Is...

Planned

- Transportation
- Land uses

Sustainable

- Economic
- Social
- Environmental

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Smart growth fosters the development of compact, attractive, successful communities where various transportation options, including walking, bicycling, and transit, are viable forms of transportation and where mobility needs are balanced with other objectives.

Smart growth addresses issues related to transportation – the influences of transportation and land use on each other and the characteristics of transportation systems and services that can encourage and support smart growth.

Photo is of Orenco Station's Transit-Oriented Development (TOD) along the Westside Max Light Rail Transit (LRT) in Oregon.

TOD is a form of smart growth that orients development around major transit stations or stops. Development at a TOD is usually densest close to the station (with commercial, retail, and high-density residential development nearest the station), becoming less dense with distance.

Smart Growth

Is Not...

- "No growth"
- No new roads
- Against new highways
- Only slow, skinny streets
- Neo-traditional design
- Only high-density development
- Designed to discourage traffic everywhere

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What smart growth is not:

•"No growth" – smart growth assumes that there is growth

•No new roads – smart growth supports new and improved roads...that follow smart growth principles and support other aspects of smart growth

•Against new highways – new highways can be important to smart growth; for example, to help direct growth to designated growth areas and away from preservation areas, to provide routes to carry economic trade that supports a viable community, and to carry major through traffic so it is not forced into residential areas where traffic is not wanted

•Neo-traditional neighborhoods – neo-traditional neighborhoods are examples of smart growth, but smart growth is not limited to neo-traditional design concepts

•Only slow, skinny streets – smart growth embraces the need for streets of varying types, including arterials that have four or six traffic lanes and carry high traffic volumes. Smart growth does call for such streets to be more compatible and supportive of abutting development (both should be planned to be mutually supportive and compatible)

•Designed to discourage traffic everywhere – smart growth recognizes that traffic movement is necessary for the social and economic success in an area, and it seeks positive ways of channeling traffic

•Only high-density development – smart growth acknowledges that people have different lifestyles, and choices of housing types are part of the smart growth concept

•Photo: street improvements that include better pedestrian facilities in downtown Plano, Texas; new Eastside Village is in background.

Smart Growth

Typical smart growth land-use objectives

- Compact development
- Infill and redevelopment
- Desired sites for business
- Connectivity
- Reduction of sprawl
- Open space preservation

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Typical smart growth land-use objectives:

•Compact development – siting developments, subdivisions, or communities in close proximity to each other, to make them more walkable or within convenient biking or transit distance, and smaller lot sizes, closer proximity to walkways, and less "leap-frogging" over undeveloped land

•Infill, redevelopment – to make best use of existing infrastructure and to fill in undeveloped areas before extending even farther out on the periphery

•Desired sites for businesses – can help growth occur in an orderly and predictable fashion, and where it is most desirable

•Connectivity – connect neighborhood streets, pedways, bikeways; interconnect neighborhoods; provide intermodal connectivity, etc.

•Reduction of sprawl – reduce absorption of open space, forest, and agricultural lands and keep urban areas compact (as mentioned above)

•Open space preservation – by infill and other development methods that reduce land consumption and sprawl

Photo: Street scene showing walkable mixed-use area in Houston. From the Livable Houston website: http://www.livablehouston.org/picturehouston/photo01.htm.

Smart Growth

Typical site-level smart growth objectives

- Mixed use
- Higher density
- Job-housing balance
- Aesthetic appeal
- Walkability

Typical site-level smart growth objectives:

•Mixed use – locate complementary uses within same development or in close proximity to each other

•Higher densities – self explanatory

•Job-housing balance – balance work force and employment locations both regionally and sub-regionally so commute distances are kept low; requires not just a count of work force and jobs, but also matching the types of housing with the compensation levels of nearby jobs

•Aesthetic appeal – make development attractive and pleasant to be in

•Walkable – make environment attractive and convenient to walk in through connectivity, density, mixed uses, and aesthetics

Photo: Mockingbird Station, Dallas.

Smart Growth

Typical smart growth transportation objectives

- Travel choices
- Walkability
- Networked streets
- Efficient transit
- Reduced vehicle use

Typical smart growth transportation objectives:

•Travel choices – provide modal choices as well as alternative routes

•Walkability – make developments and transportation facilities pedestrian friendly and attractive for walking

•Networked streets – all streets link together in a grid or similar network to provide connectivity and reduce necessary travel distances

•Efficient transit – provide convenient, direct connections to frequent destinations

•Reduced vehicle use – achieving the above objectives can get people out of personal vehicles and into alternative transportation modes

•Photo is of conventional development with long blocks and cul-de-sacs.

Expected smart growth results:

•Economic vitality – smart growth can make communities attractive to businesses, which can improve economics and make for healthy communities

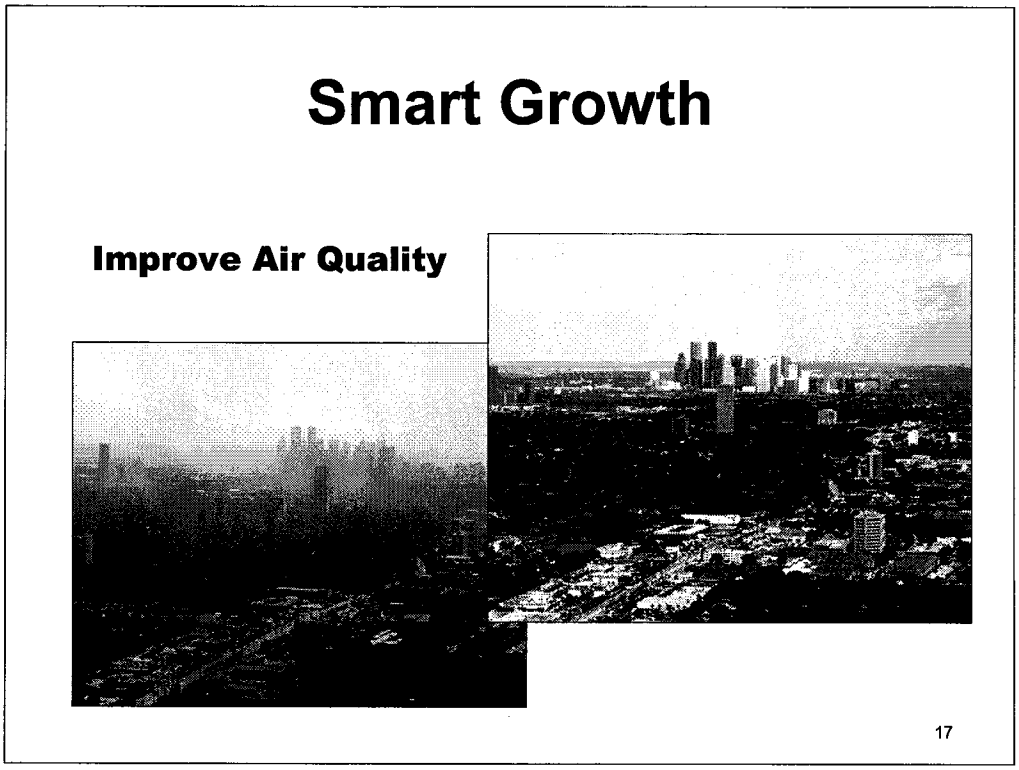
•Environmental sensitivity – smart growth communities are designed in context with the environment and planned to minimize the environmental impacts of development

•Efficient use of resources – smart growth maximizes existing infrastructure, financial resources, and land to make the most of resources and investments

•Sustainability over time – smart growth balances economics, resource use, and social needs to provide continuing viability to make a community healthy

Each community has its own combination of objectives. Smart growth supports local objectives and uses its concepts to support and achieve the local objectives. For example, Houston needs to manage growth and control pollution: Austin's original smart growth goal was to manage growth to preserve resources, and the focus has been changed to meet economic development objectives.

The following slides illustrate some varied smart growth objectives.



Typical smart growth objectives might include improving air quality through reduced vehicle use associated with shorter trips and more walkable communities…

These are unretouched photos of Houston, Texas.

Smart Growth

Provide Travel Choices

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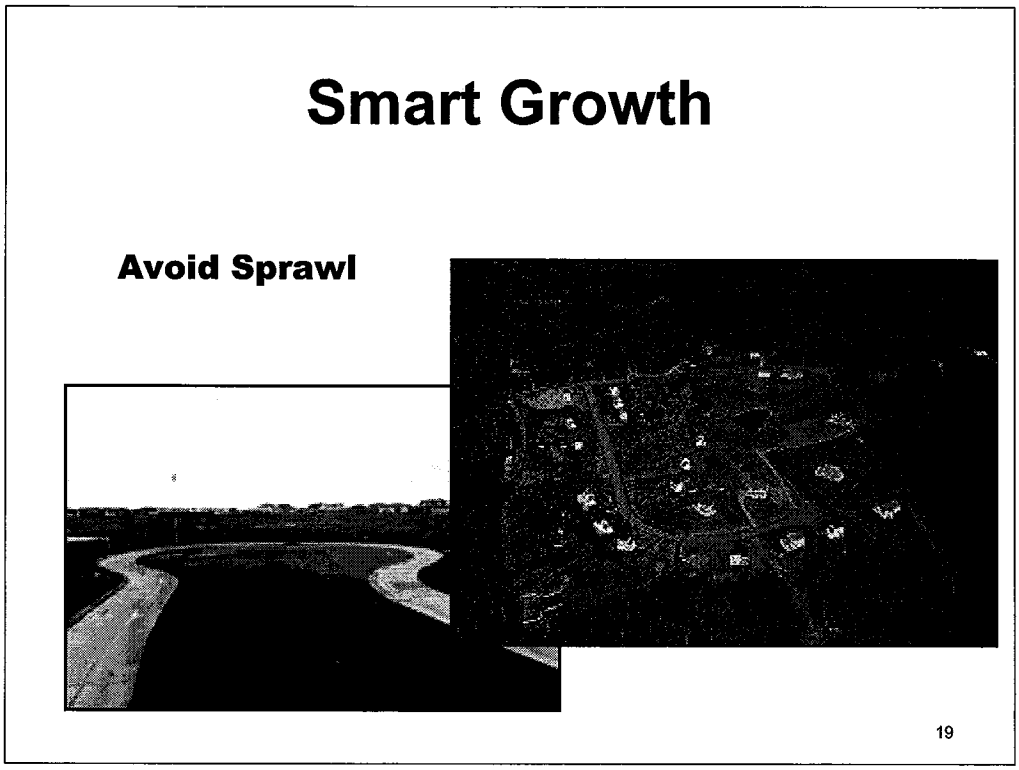
…or improving transit systems to reduce VMT and improve access to improve quality of life,

Left photo: Dallas



...or to reduce sprawling development to maximize infrastructure investments.

Left photo: Natomas Subdivision, Sacramento California,
http://www.nrdc.org/cities/smartGrowth/char/appa.asp

Right photo: http://science.nasa.gov/headlines/y2002/11oct_sprawl.htm

Smart Growth

Applicability

- State
- Region
- City
- Subarea
- Site

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Smart growth concepts and principles are applicable at all levels from state to site.

Photo: Redeveloped area of downtown Plano, Texas, with Eastside Village transit station in the background.

Smart Growth

Sample goals and objectives

- **City**
  - **Reduce sprawl**
  - **Redevelop urban core**
  - **Relieve traffic congestion**
  - **Improve air/water quality**
  - **Make hike and bike transportation viable**
  - **Create transit-oriented development**
  - **Create better housing options**

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Sample goals and objectives of Austin, Texas – self explanatory

Transit-oriented development is designed to put the highest density development closest (within ¼ mile) to the transit stop or station. Ideally this is mixed-use development, including office/commercial, retail, and housing. Density will decrease with increasing density from the transit station.

Photo: infill housing development in Priority Development Zone, Austin, Texas.

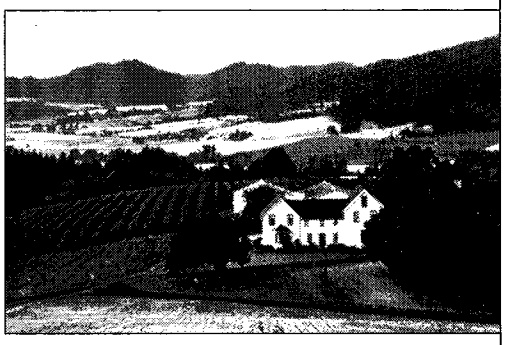
Question to engage audience in discussion:

Does your community share any of these objectives?

Smart Growth

Sample goals and objectives

- **State**
  - **Manage (rapid) growth**
  - **Plan comprehensively**
  - **Job-housing balance**
  - **Economic diversification**
  - **Preserve farmland, forests, open space**



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Sample smart growth goals and objectives of the State of Oregon:

- Oregon pursued smart growth as a means of managing rapid growth
- The state initiated regional comprehensive planning to be consistent with statewide goals for:
  - Attaining a balance of jobs and housing within specific geographic areas
  - Setting aside land to accomplish economic diversification objectives, such as new industry requiring large land areas
  - In addition to managing population growth and economic diversification, preserving farmland, forests, and open space through better land-use and transportation plans

Smart Growth

Transportation examples

- Systems, networks
- Travel modes
- Facility function and design
- Access management

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Below is a list of transportation components to which smart growth concepts can be applied. All can support smart growth. Examples:

•Systems, networks – connectivity, travel choices, reducing VMT and travel times

•Travel modes – personal vehicles *plus* making other modes convenient such as walk, bike, transit, and intermodal transfers, too

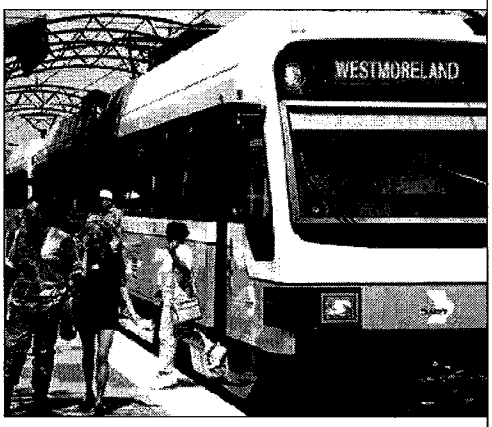
•Facility functions and design – smart growth includes planning and designing transportation and other facilities to meet smart growth functions, e.g., *encourage* walking, *make* transit use convenient and attractive

•Access management – locate and design access to preserve capacity and minimize vehicle-pedestrian conflicts

Smart Growth

Transportation goals

- **Improve transportation/land use interaction**
- **Encourage non-driving modes**
- **Environmental compatibility**
- **Contribute to quality of life**



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•Interaction between land uses – smart growth encourages and provides for complementary, mutually supportive adjacent land uses, such as community shopping areas mixed in with residential concentrations

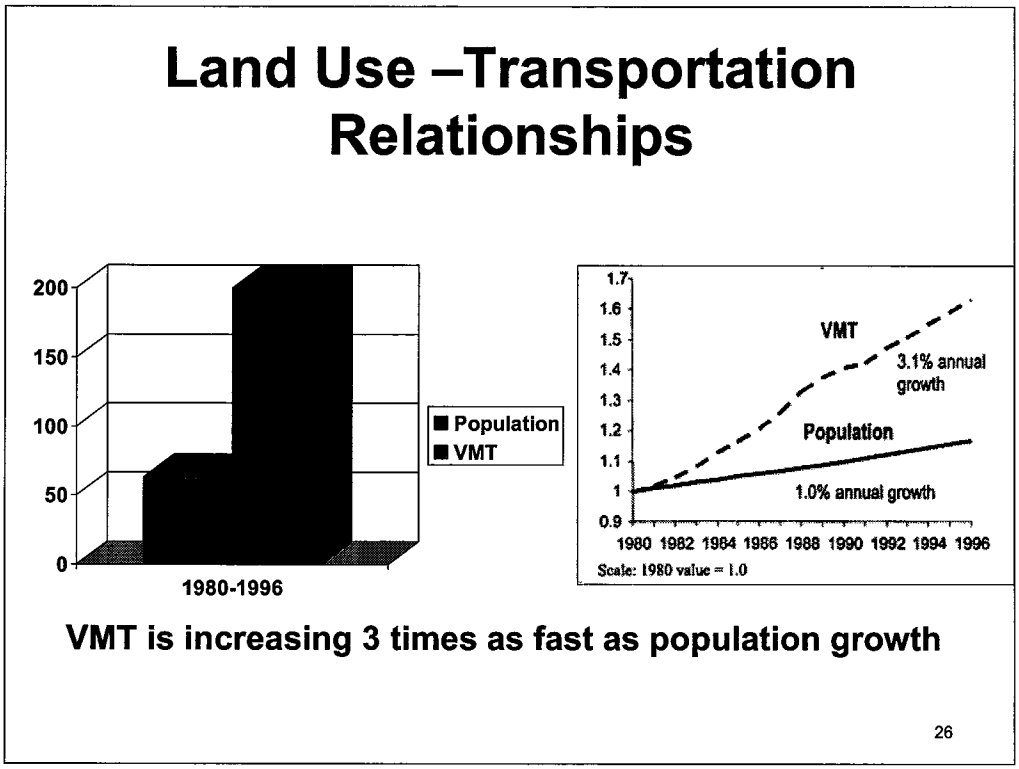
•Encouragement of non-driving modes – to reduce dependence on driving and VMT

•Environmental compatibility – be proactive in making transportation systems compatible and supportive of the natural environment

•Contribution to quality of life – use transportation investments and programs to improve quality of life, e.g., comfort, attractiveness, human interaction, etc.

Photo: Dallas, Texas, DART light-rail vehicle at station.

The next section describes some basic land use-transportation relationships that are important in smart growth.



Since 1980, the U.S. population has grown at an average rate of about 1%, but VMT has grown at a rate of over 3%. More of us are driving on more trips, driving alone more often, and driving further, at least partly due to sprawl and inefficient development patterns (e.g., cul-de-sac streets requiring circuitous travel, homogeneous zoning, no sidewalks in many areas) and insufficient viable travel alternatives.

Question to engage the audience in discussion:

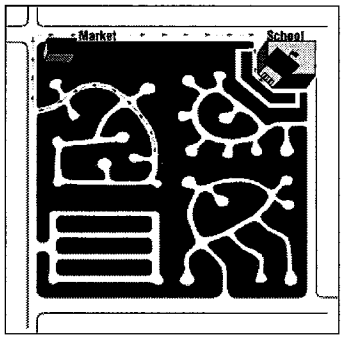
Can you think of a few reasons why VMT would grow at three times the rate of population growth?

A: a few examples are sprawl, inefficient development patterns, such as segregated land uses (homogeneous zoning) and cul-de-sacs, lack of viable transportation options, such as a lack of or unsafe walking or bicycling facilities, inadequate transit, longer commute distances, inconvenient walking for short trips, and a lack of sidewalks for short trips.

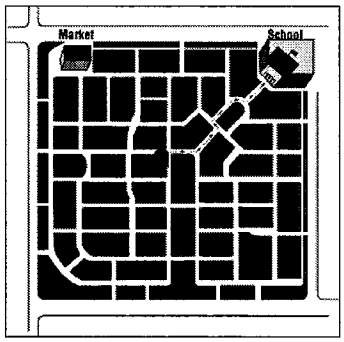
Land Use –Transportation Relationships

Roadway system layout

- **Networked neighborhoods can reduce internal VMT**



Discontinuous cul-de-sacs



Well-connected network

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Here is an example: research has shown that in subdivisions like the one on the left, driving distances are about double those of the well-connected type on the right. Additionally, all traffic from the subdivision on the left must use the collectors or arterials, since the local streets don't go anywhere; this increases congestion as well as travel distance. These diagrams are extreme examples, but clearly illustrate the problems with discontinuous street networks.

Questions to engage the audience in discussion:

Which of these provides the shortest distance and most pathways from home to school?

How would you make the neighborhood on the left more amenable to walking and bicycling? (add connecting pathways).

Presenter should trace the paths from the house in the middle of the sketch to the store in the upper left and to the school on the upper right; discuss walking options/attractiveness for the trips.

Land Use –Transportation Relationships

Mixed-use development reduces the need for vehicle trips

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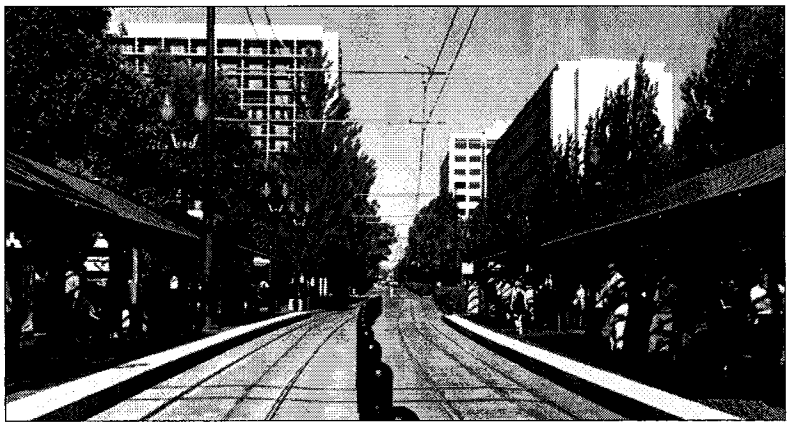
In this development there are residential units above ground-floor retail, restaurant, and service businesses, and a garage in the middle where it is less visible but still convenient to the users it serves. This design is compact, mixed use, and pedestrian friendly with the street landscaping. It should reduce travel distances, and therefore reduce vehicle trips.

Photo: inner city redevelopment, Houston, Texas.

Question to engage the audience in discussion:

Can you think of any sites in your own community that have been or could be redeveloped like this?

Land Use –Transportation Relationships



Compact development

- **Reduces trip distance**
- **Facilitates walking, bicycling, and transit**

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You can see in this photo how creating dense development, in this case offices and retail, adjacent to a major transit stop can increase transit usage and reduce private vehicle use. This transit stop provides shelter and seating, which adds to user comfort.

This photo is of Transit-Oriented Development along the Eastside Max light-rail line at Lloyd Center in Portland, Oregon.

Land Use –Transportation Relationships

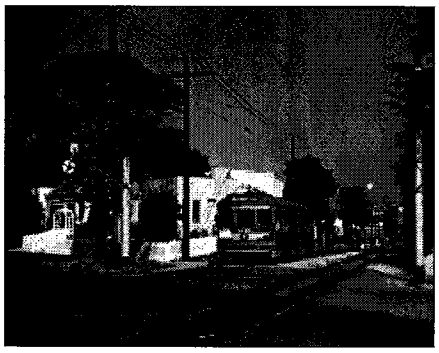
Access management can be used to influence land use and development location

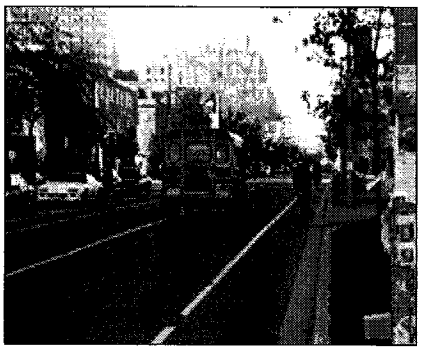
30

Access management can be used to control where access is permitted. Where the agency with jurisdiction has acquired access rights along a road, it can use its permitting authority to permit access only where it is consistent with plans. Oregon's DOT acquires access rights along all new and improved highways and has this power and policy on many of its roads. It uses access management to encourage developers to locate developments in areas where the local jurisdiction plans for such development.

This photo is another view of the Transit-Oriented Development along the Eastside Max light-rail line at Lloyd Center in Portland, Oregon.

Land Use –Transportation Relationships





Accessibility

- **Leads land development**
- **Influences land use**

31

Accessibility has always played an important role in where development occurs. In the early years of colonization, water routes were the primary means of access in the USA. Settlement started along the east coast and expanded along inland waterways. Much later, urban suburbs were opened up by commuter and interurban railroads such as the Pacific Electric lines (photo on left) that operated in much of the Los Angeles area. Roads are now the primary influence on development location.

Land Use –Transportation Relationships

Design standards affect quality of people environment

32

Transportation design standards influence how well land use/development relate to the transportation facilities and services and the quality of life perceived to exist in that development. Transportation rights-of-way can just be transportation facilities that feel uncomfortable and unfriendly…(*compare this to next photo*)

This photo is of typical suburban strip development on a six-lane arterial.

Land Use –Transportation Relationships

Design standards affect quality of people environment

33

... **or** transportation rights-of-way can make an area attractive to people and encourage walking, bicycling, and transit ridership.

This photo is of a compact, pedestrian-friendly commercial site (Main Street in Gresham, Oregon).

Transportation Policies

Can affect

- **Partnering in planning**
- **Accessibility of urban centers**
- **Roles of streets**
- **Project selection**
- **Investment priority**

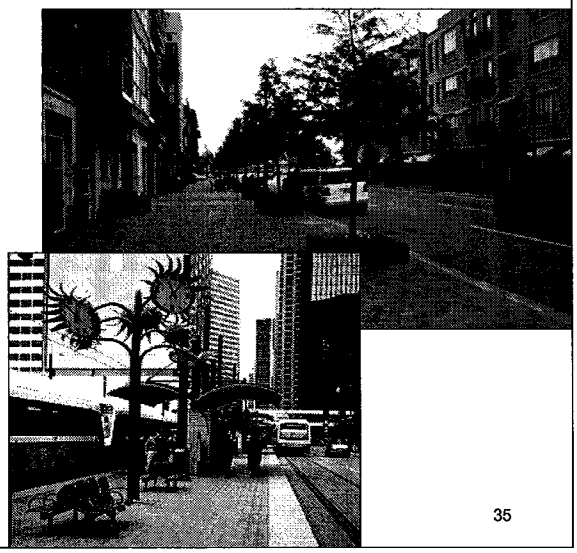
Transportation policies influence the ease (or difficulty) with which smart growth can be pursued. Policies affect the factors listed.

Photo: Houston, Texas bike lane.

Transportation Policies

Can affect (cont.)

- **Design standards**
- **Bike/ped provisions**
- **Access management**
- **Transit prioritization and transit-oriented development (TOD)**



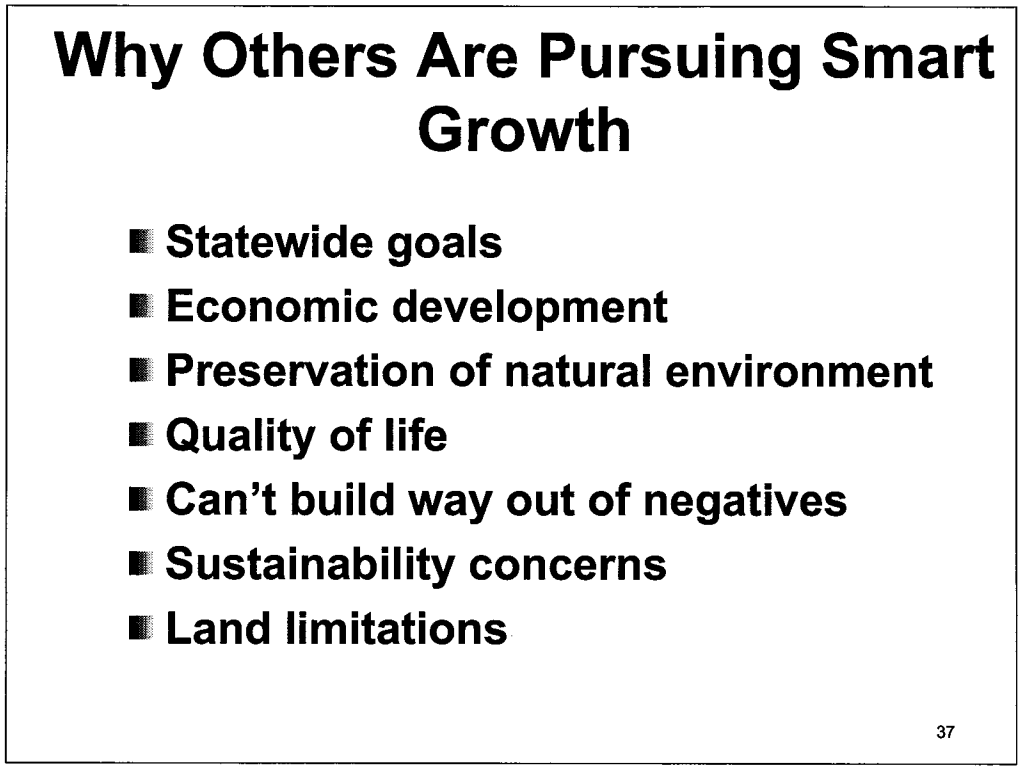
35

...list continued from previous slide.

Top photo: mixed-use redevelopment in Houston, Texas.

Bottom photo: DART light-rail stop in downtown Dallas, Texas.

The following slides offer examples of different smart growth policies and programs now in place or proposed. Many of these could be adapted to state, regional, and/or local programs and policies in Texas (or other states). As we discuss these, give thought to how they might support goals or programs of your agency or area, and how they might be used or modified to benefit your programs, policies, or services.



Most self explanatory

•Can't build way out of negatives – cannot build enough road capacity to solve congestion; cannot afford to keep building new utility or school infrastructure when underutilized existing infrastructure is available

•Sustainability concerns – ability to maintain viable inner city and other areas when new investment is concentrated on new peripheral areas

•Land limitations – some areas are losing valuable and limited lands currently devoted to agriculture, forests, and other open space or valuable habitats and wetlands

Reasons for Pursuing Smart Growth - State Examples

Maryland

- Support growth in planned areas
- Accommodate growth without sprawl
- Relieve traffic congestion
- Improve air, water, environmental quality
- Preserve farm, forest, and open land

SHA State Highway Administration Maryland Department of Transportation — Driven to Excel

MARYLAND SCENIC BYWAYS

38

Maryland took a "top-down" approach with the state leading the way. This list contains examples of state-level smart growth objectives.

Examples
Maryland Statewide Policies

- **Policies**
  - **State smart growth act**
  - **Priority funding areas**
  - **Rural legacy program**
  - **Brownfield laws**
  - **"Live near your work" program**
- **Goals**
  - **Save natural resources**
  - **Support existing communities**
  - **Reduce infrastructure costs**

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Policies:

•State smart growth act – state legislation leads the way for smart growth in Maryland, providing programs and policies listed below

•Rural legacy program – preserves designated rural areas

•Brownfield laws – Maryland's 1997 law limits liability and offers tax relief, grants, and low-interest loans to encourage redevelopment of brownfield properties. Several cities within the state offer their own brownfields redevelopment incentives.

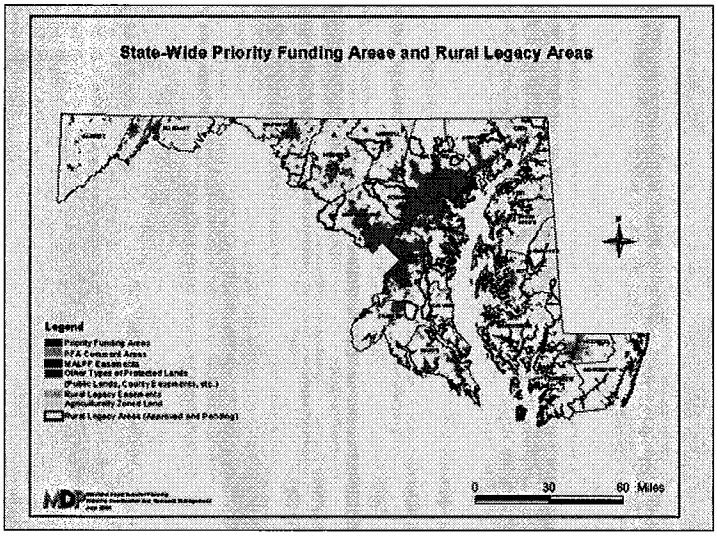
•"Live near your work" program – is a partnership between the Maryland Department of Housing and Community Development and local government and businesses. The program offers $3,000 grants to employees who purchase homes within 5 miles of their places of employment.

Goals:

•Support existing communities – through state funding and investment decisions, the goals and programs of existing Maryland municipalities are supported.

Others self explanatory

Examples
Maryland Statewide Policies



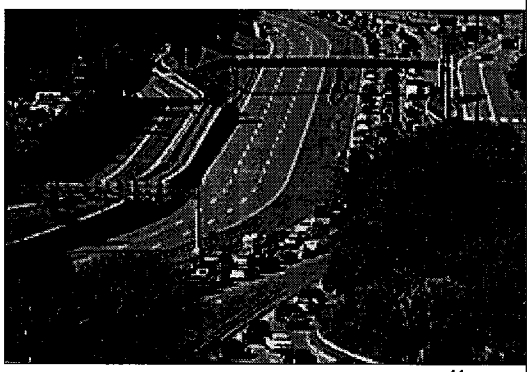
40

•Maryland's Priority Funding Areas – limits state most infrastructure and related investments to areas specifically designated for growth (graphic shows Statewide Priority Funding Areas in orange)

Reasons for Pursuing Smart Growth - State Examples

California

- Concern about impacts of rapid population growth
- Desire to reduce traffic congestion
- Address environmental issues



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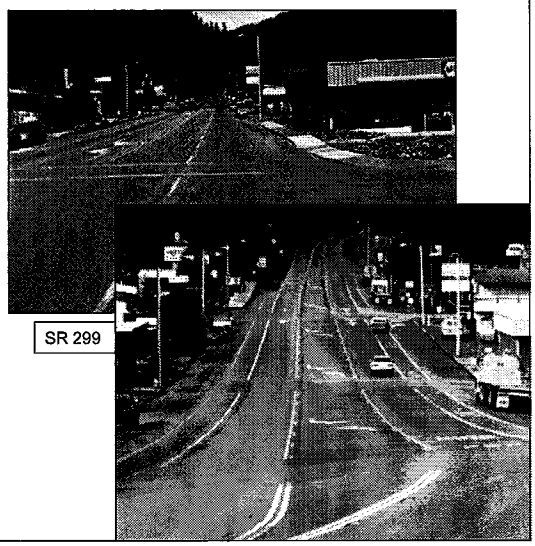
On the other coast are several examples of smart growth, including California.

Photo: Example - California highway from California Smart Growth Initiative website.

Examples
California

Redesign arterial highways to add:

- **Parking**
- **Bike lanes**
- **Widened sidewalks**



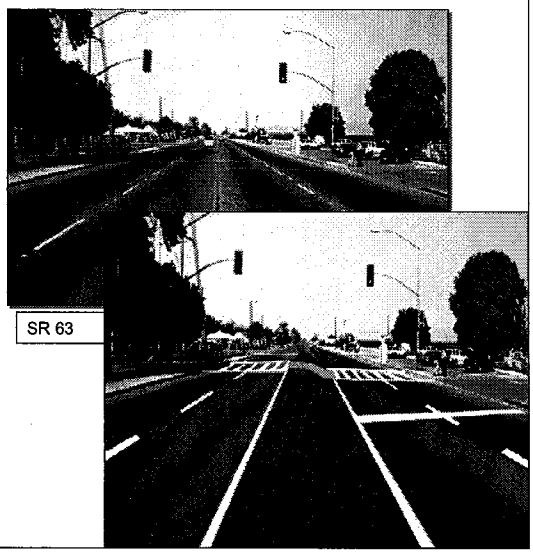
Making a state highway more friendly. This is State Route (SR) 299 as it passes through Willow Creek, California. The city was concerned about speeding traffic that used this section of highway as a "passing zone." The city wanted to slow traffic and make this commercial area friendlier to pedestrian and bicycle traffic, as well more aesthetically appealing.

Photos: before-after comparison of SR 299. This is after Phase I of the improvement. It has one moving lane in each direction, a two-way left-turn lane, curb parking, and space to be used to widen the sidewalks and add landscaping in Phase II.

Examples California

...more redesign of arterial highways to add:

- **Medians**
- **Safer crosswalks**
- **Landscaping**



This is a simulation of changes projected for SR 63 as it passes through Orosi, California. This design is the result of planning charrettes, focus groups, and design sessions with Caltrans staff and the citizens of Orosi. This solution satisfies the needs of Caltrans, and also meets community objectives for economic development and sustainable growth.

Reasons for Pursuing Smart Growth - State Examples

Illinois

- Creation, expansion, and restoration of livable communities
- "Balanced growth"
- Economic development
- Preservation of open space
- Quality of life
- Corridor improvements

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Another example of a statewide smart growth program can be found in Illinois, where the term "balanced growth" communicates the need to grow economically, diversely, as well as in general accordance with smart growth concepts.

•Photo: Illinois agriculture.

Reasons for Pursuing Smart Growth - State Examples

Delaware

- Economic development and growth
- Travel opportunities and choices
- Preserving quality of life
- Conserving open space
- Cost-effectiveness
- Planning and coordination

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Delaware also has a smart growth program known as the "Livable Delaware Agenda." This program is intended to encourage economic development and growth while conserving open spaces and preserving quality of life through effective planning and coordination of land development and transportation systems.

Example – self explanatory

•Travel opportunities and choices – flexibility in route and mode choice

•Oregon has a notable statewide smart growth plan known as the Transportation and Growth Management Program.

•The goals of this program match the goals of many other statewide growth management programs, which include economic development, conservation of open space, and effective land-use and transportation planning.

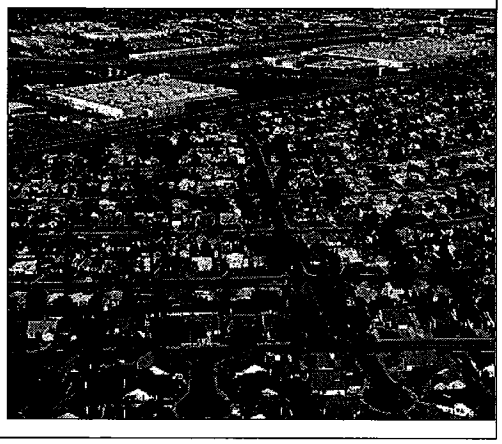
•Under this plan, the state has established 19 planning goals and state legislation requires local comprehensive planning so these 19 goals can be met in a planned and orderly fashion.

•We will discuss the Oregon plan in detail in the following slides.

Examples
State of Oregon

Initiated over concerns about

- Rapid growth
- Quality of life
- Consumption of farmland, forests, and other open space
- Sustainability



Self explanatory

Examples
State of Oregon (cont.)

- Statewide approach
- Five departments work together
  - Transportation
  - Land conservation and development
  - Environmental quality
  - Economic development
  - Housing and community services
- Comprehensive planning basis

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•Statewide approach – Oregon took early action at the state level through legislation that established a multi-agency program

•Five departments work together led by the top two in the list: DOT and the DLCD (Department of Land Conservation and Development) are responsible for most programs but coordinate with the other three

•Comprehensive planning basis – most of what Oregon does in smart growth is built around comprehensive planning under the concept that smart planning will result in smart growth

Examples
State of Oregon (cont.)

- **Land use controls through comprehensive plan requirements**
  - **240 municipalities**
  - **36 counties**
  - **3 regions**
  - **All plans simultaneous in each region**

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•Comprehensive plans are required of *all* municipalities (regardless of population or size), counties, and designated regions (MPO - Metropolitan Planning Organization)

•Comprehensive plans in each county or region must be updated simultaneously to ensure compatibility and coordination

Examples
State of Oregon (cont.)

- **Comprehensive plans (approved by state)**
  - **Must meet 19 state goals**
  - **Land use**
  - **Transportation**
  - **Many other factors**
- **Urban growth boundaries (UGBs)**

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•All comprehensive plans must be approved by the state. They are to meet 19 goals established by the state

•Plans must be truly comprehensive, including transportation and land use, but also many more components

•Each municipality must designate an urban growth boundary (UGB) within which development will be permitted and public infrastructure investments can be made

•The UGB is based on projected growth and corresponding land needs; UGBs can be adjusted over time

Question to engage audience in discussion:

•What is your community's vision for its comprehensive plan?

Examples
State of Oregon (cont.)

- State Transportation Rule
  - Transportation system plan
    - Very comprehensive
    - Multimodal
    - Requires implementation plan
      - Policies
      - Regulations, e.g.,
        - Subdivision, zoning, access management
      - Funding plan

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Oregon has a state Transportation Rule enacted by the Transportation Commission. It requires a Transportation System Plan (TSP) within every comprehensive plan with the listed components. The state also has a statewide TSP called the Oregon Transportation Plan (OTP).

Examples
State of Oregon (cont.)

- Transportation system plan (cont.)
  - State must approve
  - Adoption constitutes land-use action

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The state must approve the TSP. Adoption is a land-use action and is treated as part of the local land-use code, which means that it is required rather than advisory.

Oregon's smart growth program is backed by legal requirements to ensure it is followed.

Examples
State of Oregon (cont.)

Must:

- **Increase densities near**
  - **Transit stations**
  - **Major employment areas**
  - **Major retail areas**
- **Designate lands to improve job-housing balance**
- **Reduce VMT/capita**
  - **5%-10% first 20 years**
  - **5% next 10 years**

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Additional requirements for all municipalities are shown.

•Designate lands to improve job-housing balance – designate and use sites to provide housing for work force in close proximity and to provide jobs of the types fitting local resident labor force

•Reduce VMT per capita – VMT per capita must be reduced by specified amounts during the first 20 years after plan approval (reduction differs by city type) and then by an additional amount in the following 10 years

•Photo: office development near light-rail stop in Gresham, Oregon

Question to engage audience in discussion:

•What are your community's transportation planning goals?

Examples
State of Oregon (cont.)

- **Oregon Highway Plan**
  - **Designates "special transportation areas" and other special areas**
  - **Encourages development to occur where planned**
  - **Designates "expressways"**
    - **Major connecting routes**
    - **Acquire access rights**
  - **Access management**

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The highway portion of the OTP is the Oregon Highway Plan (OHP). The OHP contains most of the traditional highway portions of state transportation plans. Some unique parts of the OHP related to smart growth are:

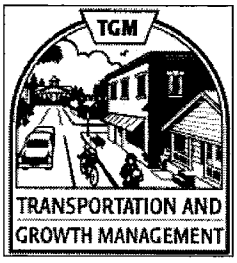
•"Special transportation areas" (STA) – these are areas that can be designated on local agency request and compliance with stated criteria. They are usually local business districts that have state highways running through them. The purpose for STA designation is to permit local agencies to make changes to the highways to make them more compatible and supportive of local community and district needs. These may be making the road more pedestrian friendly, slowing traffic, providing curb parking, landscaping, etc. Cost of such improvements is borne by local agencies.

•"Expressways" – designated highways whose principal purpose is mobility. "Expressways" are not necessarily freeways or controlled-access roads; this is a designation only. Those highways cannot have STA segments on them. ODOT acquires access rights in all new and upgraded sections of expressways.

•Access management – ODOT uses access management as do many other states. However, ODOT also uses access management as a tool to manage growth and development. ODOT can deny access where a proposed development is not consistent with local plans.

Examples
State of Oregon (cont.)

- **Transportation Growth Management Program**
  - **Grants**
  - **Advocacy**
  - **Education**
  - **Technical assistance**
- **Modified design standards**



55

ODOT and DLCD operate the Transportation Growth Management Program which contains many features including those listed:

•Grants – support planning and implementation preparations (e.g., code development)

•Advocacy – mainly public education and promoting smart growth as interpreted in the Oregon program

•Education – work with Oregon's local agencies to help them develop and implement smart growth

•Technical assistance – comes in several forms ranging from providing technical documents describing specific parts of the program to codes and guidelines for use in implementation

•Modified design standards – under development in 2003, but expected to provide more guidance for urban roads to be compatible with desired urban conditions

Examples
State of Oregon (cont.)

- **Results**
  - **All agencies have comprehensive plans**
  - **Urban sprawl contained (~10% of prior consumption per capita)**
  - **Smaller (~30%) lot sizes**
  - **Higher density (+17%)**
  - **Lower infrastructure costs**
  - **More complementary state investments**
  - **Access management working to manage development**
  - **State roads becoming "friendlier" to communities**

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Results to date:

•All 240 Oregon municipalities, all 36 counties, and all 3 regions have approved comprehensive plans (since 1985)

•Sprawl has been greatly reduced, with land being consumed by UGB expansion at only 10% the rate per capita of the 1960s

•Residential lot sizes have been reduced by about one-third to decrease land consumption

•Density has also increased by about 17%

•Infrastructure costs are lower (due to decreased sprawl)

•There are more complementary state investments, which is termed "smarter" because there is more coordinated and better thought out rationale for investments

•Access management is working to manage development, and in some places handling of access permits has moved new development to desired locations

•State roads are becoming "friendlier" to communities. Since beginning the STA program some roads have been modified to increase compatibility, and a bypass policy has been established to permit alternative routes or new highways to carry major through traffic movements or supplement capacity of "main street" highways

Examples
Portland Region

- Initiation
  - Area concerns
    - Rapid growth and sprawl
    - Infrastructure, service cost concerns
    - Projected congestion
    - Quality of life
  - Established regional government 1978
    - To manage regional growth
  - Adopted UGB 1979 (24 cities)

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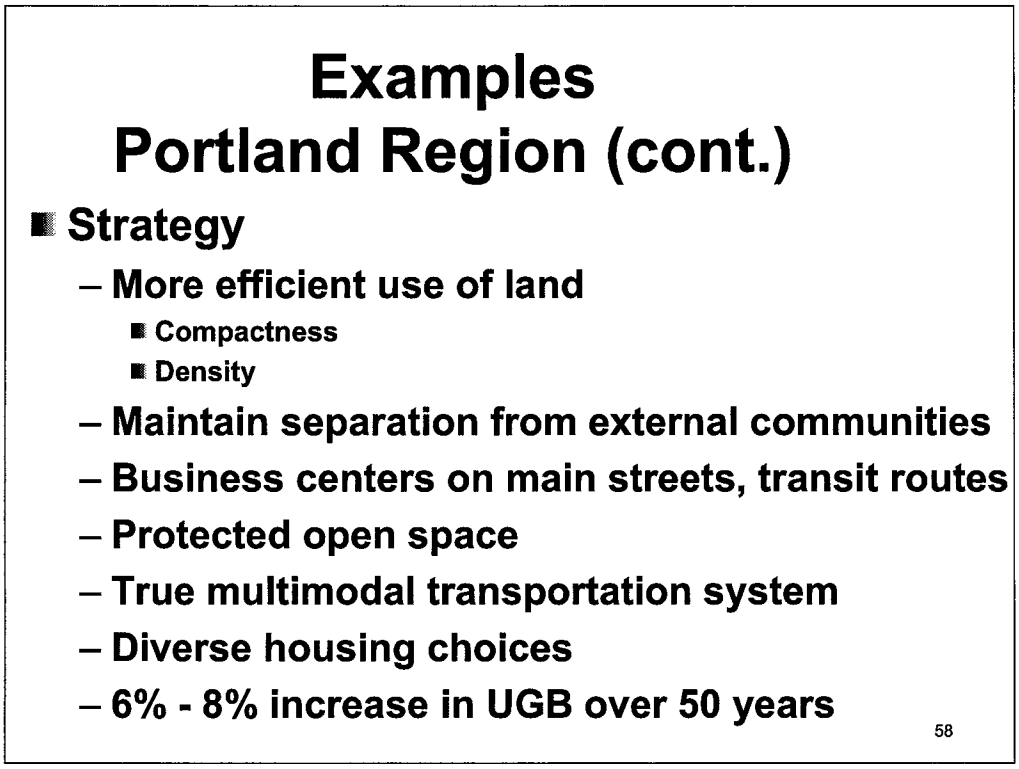
We will now take a detailed look at the plan for the Portland region (one of three designated Oregon regions; has 24 cities).

Self explanatory



Most self explanatory

•Maintain separation from external communities – plan designates which smaller communities will become part of Portland urban area and which ones will remain separate. Urban growth will not approach the independent communities

•UGB – projected increase in UGB boundary area is 6%-8% over 50 years; several small expansions have occurred so far over about two decades

Examples
Portland Region (cont.)

- **Other features**
  - **No additional freeway expansions**
  - **Use transit to shape development**
    - **Transit station communities**
  - **Rural reserves and open spaces**
  - **Industrial areas and freight terminals**
  - **Regulation of large retail development**

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Other features – mostly self explanatory

•No additional freeway expansions – freeways will be reconstructed and minor improvements made, but no widening to add more lanes is planned for the Portland area core

•Use transit to shape development – the Westside Max (LRT) line was built through major undeveloped areas to encourage them to develop in transit-oriented style; this appears to be having the desired effect, but it is too early to be conclusive

•Regulation of large retail development – limiting major retail developments to designated centers

Reasons for Pursuing Smart Growth - City Examples

Portland Region

- **Limit sprawl**
- **Reduce VMT per capita**
- **Provide travel choices**
- **Create safe, stable neighborhoods**
- **Reduce dependence on motor vehicles**
- **Promote vibrant culture and economy**
- **Protect habitats for wildlife and people**

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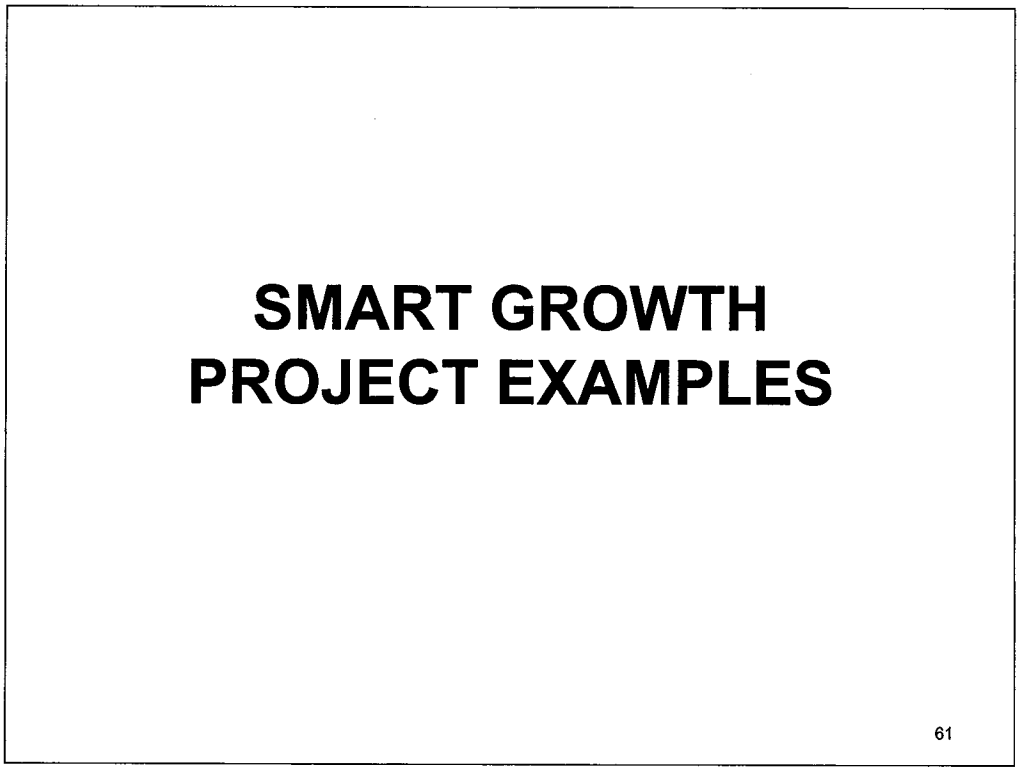
Example – self explanatory

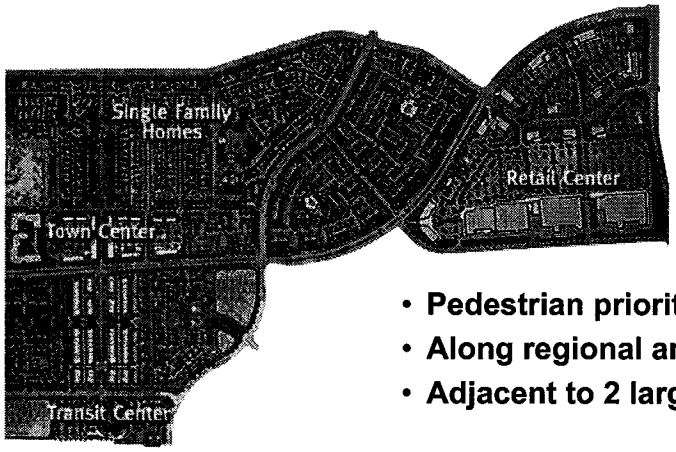
From these state and regional examples it it possible to see both some commonality as well as differences in why this cross-section of states and local governments has chosen to pursue smart growth. Next we will talk about some local plans within the Portland, Oregon, region.

Photo: Eastside Max light-rail station at Gresham Station in Gresham, Oregon.



We are now going to review some specific smart growth projects.

Example – New Development Orenco Station, Portland area



- **Regional center**
- **Transit-oriented development**
- **Mainly residential**
- **New urbanist design concept**
- **Pedestrian priority and friendly**
- **Along regional arterial road**
- **Adjacent to 2 large employers**

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•An example of a new development created to take advantage of rail transit, Orenco Station is located in Hillsboro on the far west end of the Portland region. This land was originally zoned for industrial use, but the zoning was changed to mixed-use in order to comply with requirements necessary to get light rail service to the area.

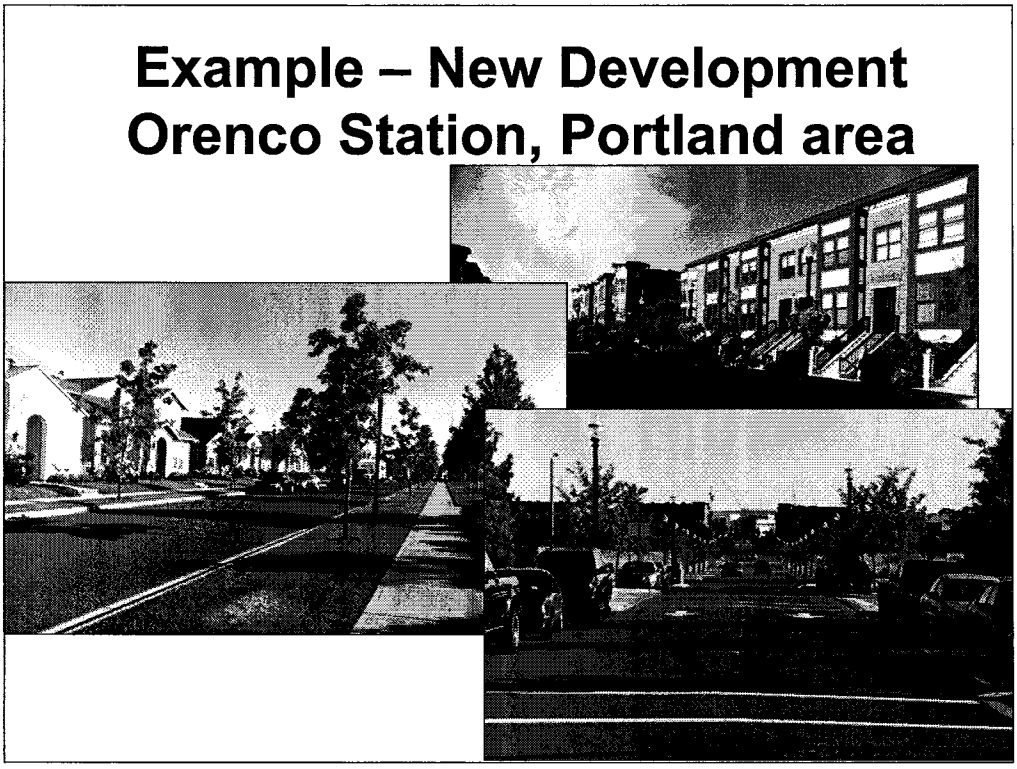
•The development has residential, office, convenience retail, restaurant, and live/work space, all within a conveniently walkable area.

•Development is compact with small lot sizes. The internal streets are networked and arranged so the main street that connects to the light-rail station is the axis of the community.

•A regional arterial street passes through in the east-west direction. It has bike lanes and streetscaping as well as curb parking in this area.

•The Portland 2040 plan called for the station to be a town center, which the Orenco Station plan ("station community residential village") is based on.

•Orenco Station is designed to be a transit-oriented development.



•Local shuttle is also provided by van.

•Streets are 25 feet wide with parking on one side.

•Setbacks are 13–19 feet for detached homes and 8 feet for townhouses.

•Garages are virtually all off alleys.

•The walking environment is very attractively landscaped, and benches and other amenities have been provided in the commercial center and other locations.

•The development is within walking distance of a Westside Max (LRT) station.

•Two major employers are close by and are walkable from some parts of the development.

•Total residential is about 1,800 units. There are 26,000 square feet of community retail (about 45,000 ultimately) and about 30,000 square feet of office space (ultimate plan is for about 40,000).

•Development is complete north of main east-west road on plan; just started on south. Residents do walk and bike to Westside Max station shown on map as "transit center."

Example – Redevelopment Gresham, Oregon

- **Objectives**
  - **Economic development**
  - **Sustained growth**

64

An example of redevelopment is Gresham, which is also one of the Portland municipalities. Located on eastern end of the region, this community has not been a rapidly developing area. Gresham wishes to grow more and increase the economic base, although they want to grow according to smart growth principles.

Photo: Gresham Station in Gresham, Oregon was built on a redevelopment site once occupied by a fledgling automobile company that soon went out of business, then by a succession of industries. Gresham has now reoriented the site to retail (for economic base) and residential served by a LRT station.

Example
Gresham, Oregon (cont.)

- **Actions**
  - **Comprehensive plan**
  - **Land assembly**
  - **People-friendly streets**
  - **Main Street revitalization**
  - **Smart growth design concepts**
  - **Concentrate development at LRT stations**
  - **Public facilities in growth centers**

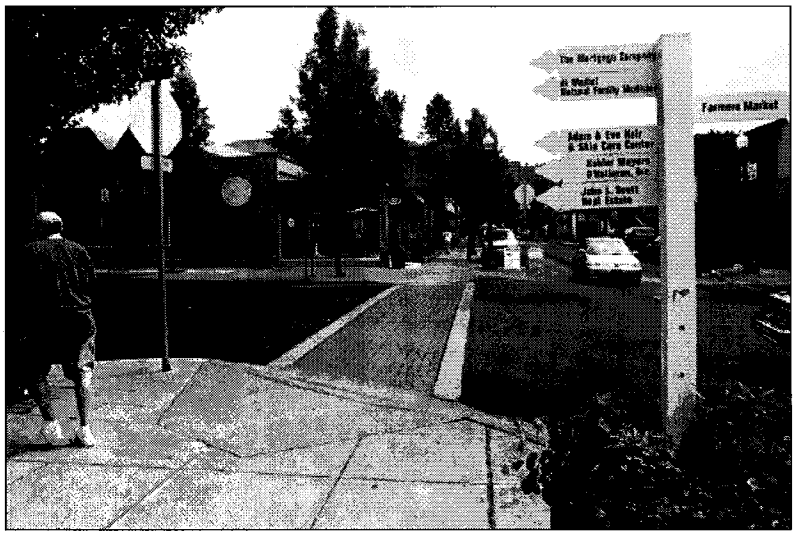
65

Most self explanatory

•Land assembly – city is assembling land to facilitate and encourage development of types desired (transit-oriented residential, higher density residential, major retail, commercial, and other economic base development).

•The following photos are of the redeveloped downtown area in Gresham, Oregon.

Example
Gresham, Oregon (cont.)



66

Pedestrian-scaled signage, well-delineated crosswalks, street furniture, and landscaping contribute to pedestrian comfort in this redesigned area of downtown Gresham, Oregon.

Gresham Station
Gresham, Oregon (cont.)

- **Big-box retail center**
- **Transit station development**
- **Smart growth parking area**
- **Adjacent regional arterial being redesigned**

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•This development in central Gresham consists of big-box retail, but with some convenience retail and apartments.

•Several building sites remain to be developed.

•Residential (apartments) under construction will provide walk-in market.

Gresham Station
Gresham, Oregon (cont.)

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•The Eastside Max station shown at one corner of center (see photo) also serves city hall on an adjacent parcel.

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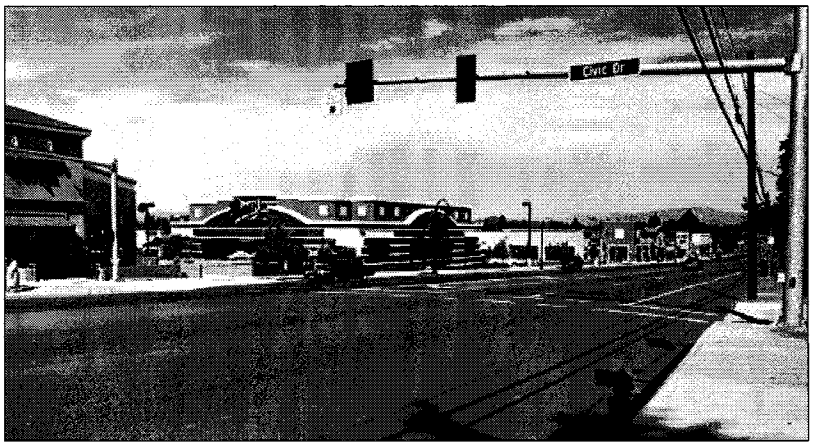
Gresham Station
Gresham, Oregon (cont.)

69

Parking lot main aisles are designed similar to local streets to facilitate pedestrian movement and improve appearance.

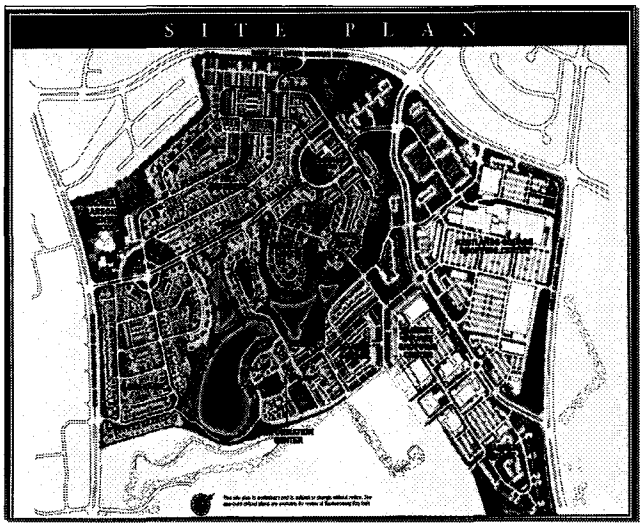
Gresham Station
Gresham, Oregon (cont.)



70

Division Street, the main road serving Gresham Station, is to be reconstructed with wider sidewalks, curb parking, and a landscaped median to make it a more friendly, walkable community asset.

Example – New Development Kentlands in Gaithersburg, Maryland



71

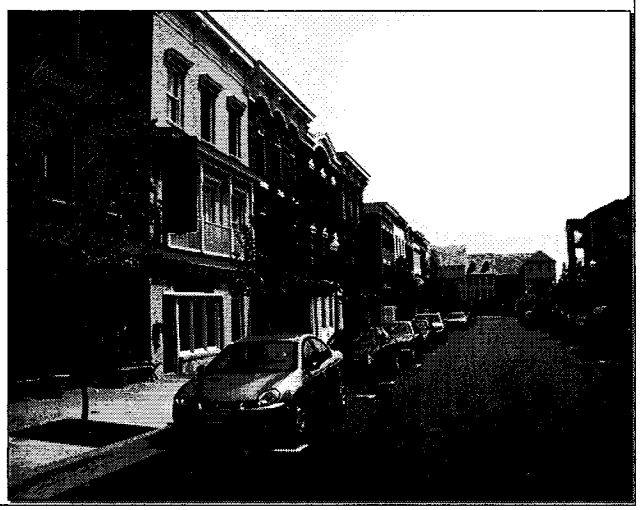
A local new development on the east coast is the Kentlands subdivision in Gaithersburg, Maryland, a suburb of Washington, D.C. The Kentlands covers 350 acres of formerly undeveloped land.

When the Kentlands was planned 20 years ago, the City of Gaithersburg had no zoning for mixed-use development, and worked with the developer to create such a zone. This was the city's first experience with high-density, mixed-use development.

The Kentlands follows "New Urbanist" principles of a mixed-use development with a town center, narrow, well-connected streets, and a pedestrian-oriented environment. The Kentland's layout is a modified grid, and the hierarchy of streets is designed to keep levels of traffic appropriate for the adjacent land use. Large-scale and big-box retail was placed at the periphery of the development to take advantage of the intersection of three highways in order to increase customer base.

Kentlands
Gaithersburg, Maryland

- New urbanist design
- Dense, compact development
- Mixed uses
- Walkable



•The development has about 2,000 residential units of various types.

•The commercial center and adjacent big-box retail center are oriented to adjacent state highways.

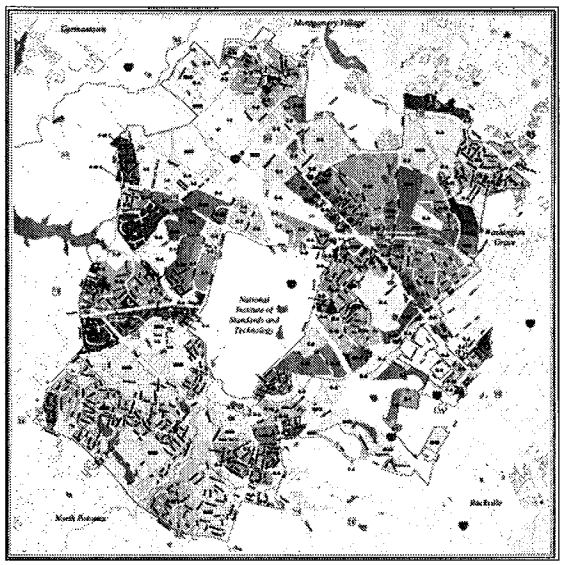
•Residential development is complete, and retail development is almost complete.

•Retail has not been very successful and some is being redeveloped as additional residential.

•Residential has done well, and housing resale values are approximately 30% higher than those of comparable housing in adjacent developments.

•Commuter rail transit is several miles away, and the local transit connector was not initiated until the Kentlands was nearly completed, so auto commuting prevails.

Kentlands
Gaithersburg, Maryland (cont.)

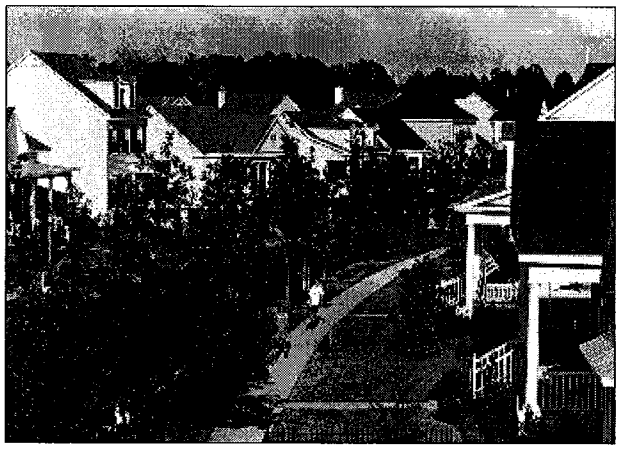


73

Gaithersburg city planners felt that the Kentlands was so successful that they encouraged more of this type of development by creating mixed-use zones throughout the city, as shown in orange on this land use map of Gaithersburg. The orange mixed-use area in the lower left includes Kentlands/Lakelands. Other new mixed-use developments are scattered throughout the city.

Example – New Development Celebration, Orlando, Florida, area

- Mixed-use residential community
- New urbanist design concept
- Town center concept
- Highly walkable



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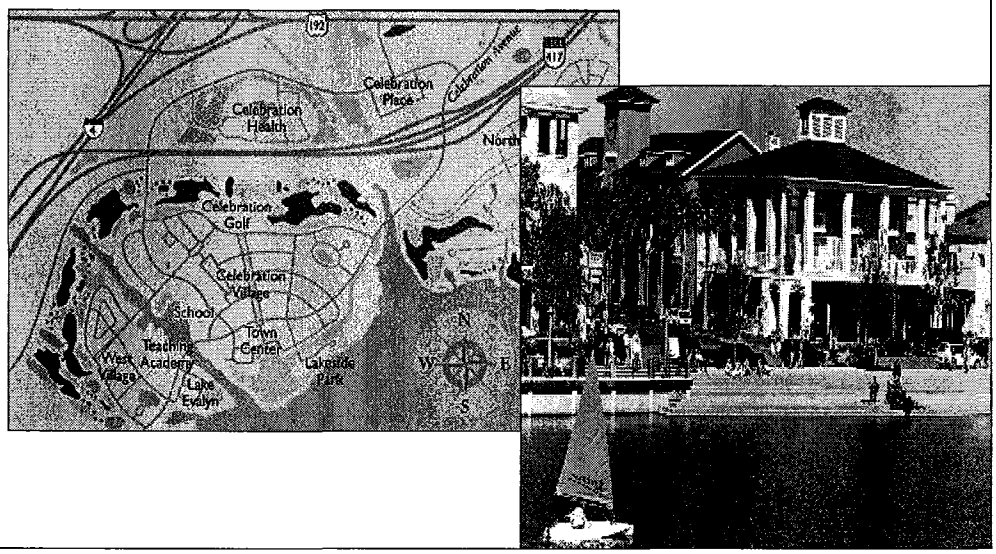
Another example of new development designed on smart growth principles is Celebration in Orlando, Florida.

•Like some other examples cited, Celebration is an outlying development.

•It is mostly residential with a commercial center with retail, theater, and hotel.

•This is a beautiful pedestrian-friendly environment.

Celebration
Orlando, Florida, area



•This is a site plan for Celebration. The community is south of Tollway 417, and is mostly residential with some retail, service, and recreation and entertainment uses close by.

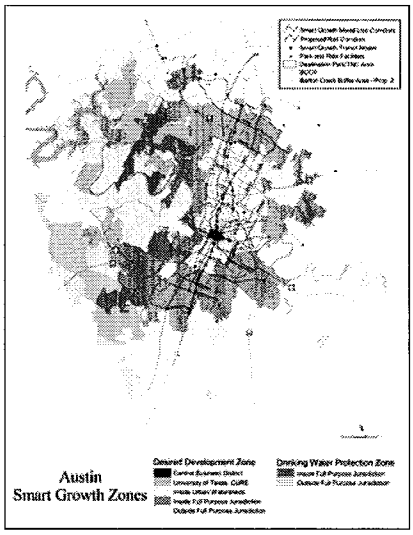
•Being close to Disney World and other tourist attractions, Celebration draws tourists; retail is oriented more to tourists than residents, with resident retail needs being met mainly along adjacent highways (e.g., US 192) outside development.

•The photo shows the character of the town center.

•Celebration Place, a regional office complex, and Celebration Health, a regional health center, are on the opposite side of the tollway; neither is within convenient walking distance of residential and is accessed by driving, as no transit connections or local service exists, although it has been discussed.

Example – Infill and Redevelopment Austin, Texas

- **Objectives**
  - **Determine how and where to grow**
  - **Improve quality of life**
  - **Enhance tax base**



76

Examples of infill and redevelopment efforts can be found here in Texas. Austin adopted "smart growth zones" to:

•Determine how and where to grow – direct growth where it will be most beneficial and meet regional objectives, such as preservation of open spaces and protection of the groundwater recharge zone; use traditional neighborhood design, transit-oriented development to develop in the desired development zone (DDZ), and avoid the drinking water protection zone (DWPZ)

•Improve quality of life – preserving and enhancing neighborhoods, protecting environmental quality, improving accessibility and mobility, and strengthening economy

•Enhance tax base – strategic investments, efficient use of public funds, and regional partnerships

Example
Austin, Texas (cont.)

•Redeveloping downtown site with residential, Austin, Texas

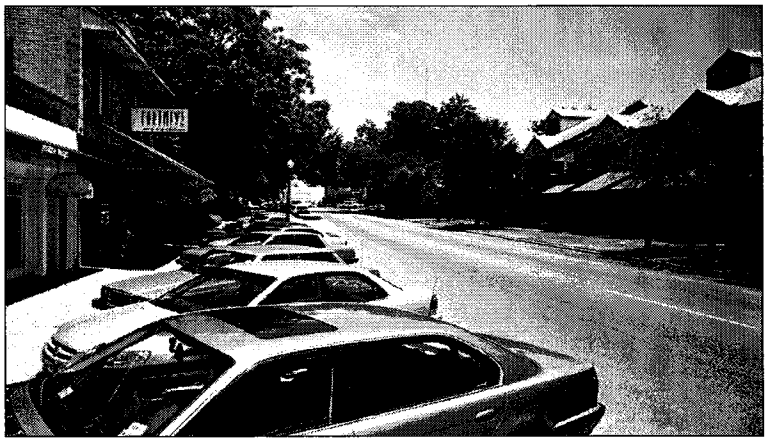
Austin's Desired Development Zones are targeted redevelopment areas where incentives are offered by the city to developers and businesses that choose to build or redevelop properties there. These development incentives include:

•reduced development fees

•infrastructure improvements, including sidewalks and landscaping

•reduced water and wastewater recovery fees

Example
Austin, Texas



78

Other example:

•Multi-use district with residential, retail, restaurant, and buildings along or minimally set back from sidewalks, Austin, Texas

Question to engage audience in discussion:

What benefits could you see for your community if examples like these were proposed for your community?

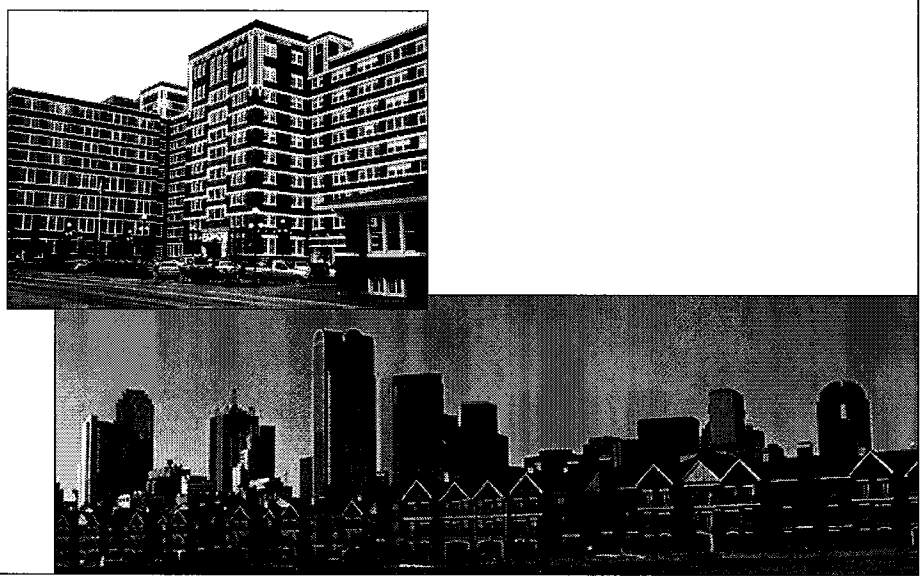
Other Examples – Houston, Texas

In addition to Austin, Houston has made efforts to redevelop its mid-town areas for mixed-uses:

•The upper photo is of a mixed-use redevelopment site with condos, ground-floor retail, service, restaurant, and internal garage, central city site in Houston, Texas

•Another redeveloped area in mid-town Houston that has improved pedestrian and transit facilities

Other Examples – Dallas, Texas

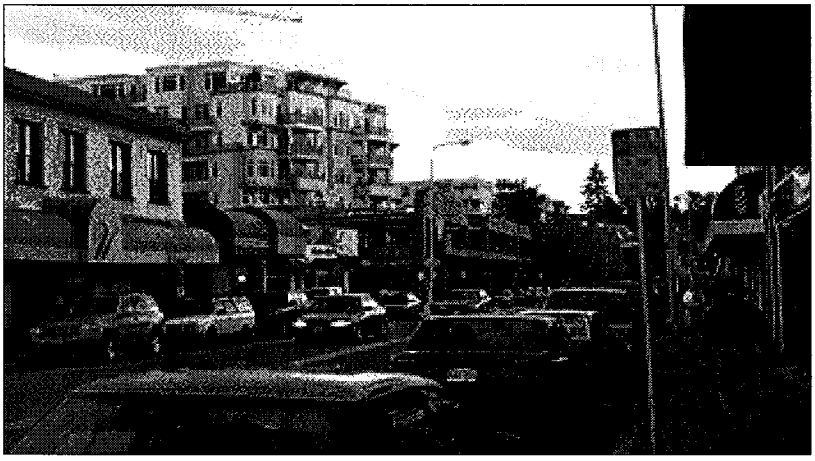


Dallas, too, is mixing land uses by redeveloping formerly commercial parts of its downtown area as residential. According to the Downtown Dallas Improvement District, the 1990 census counted fewer than 500 units of housing within one mile of the Dallas downtown area, and the 2000 census counted more than 10,000 units.

•Top photo - Redevelopment of old Sears regional office-distribution center into condos at inner city site, Dallas, Texas.

•Bottom photo - Redevelopment of old warehouse/industrial site with condos, Dallas, Texas.

Other Examples – Downtown Kirkland, Washington

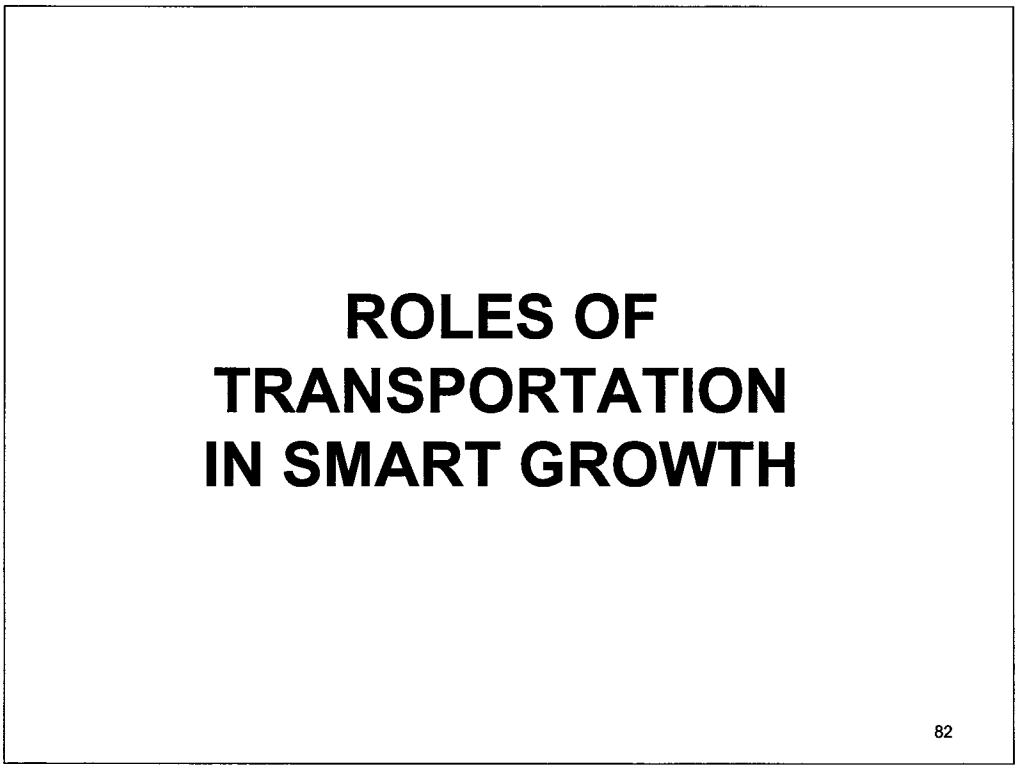


81

Another west coast example is downtown Kirkland, Washington, which is a compact mix of land uses that provides a variety of activities, for instance jobs, housing, and entertainment, within walking distance of each other. Kirkland is a tourist draw for visitors to the Seattle area, and is readily accessible by intercity bus.

•Describe examples you have seen in your agency or area that exhibit some smart growth characteristics:

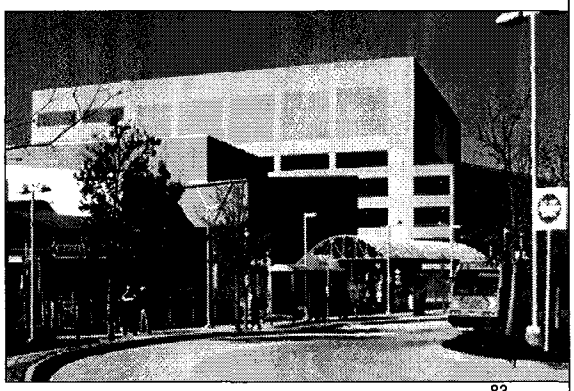
- •development
- •area plan
- •transportation improvements or plans
- •policies



Think of how your agency or area goals and programs could be achieved or enhanced by adapting these characteristics and approaches.

Transportation Roles
Accessibility

- **Shape development**
  - **Location of transportation facilities**
  - **Access policy**
  - **Investment priority**
- **Influence markets by changing accessibility to business**



83

Transportation can play an important role in shaping communities, their character, and how transportation systems are viewed by the community.

The next two slides review some of the roles accessibility plays.

This photo is of Mockingbird Station in Dallas, Texas, a mixed-use, moderate to high density development served by DART light rail.

Question to engage the audience in discussion:

How might accessibility help to achieve smart growth in your community?

Transportation Roles
Accessibility (cont.)

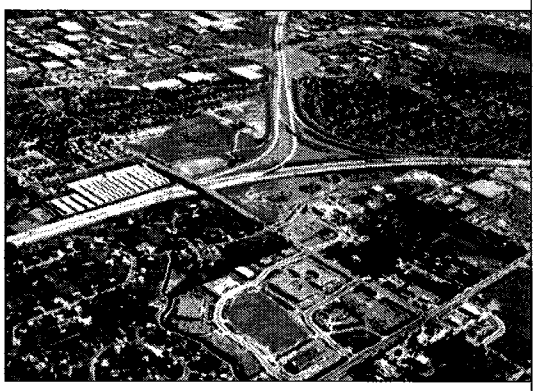
- **Influence conditions in adjacent area**
  - **Traffic presence, noise**
  - **Pedestrian environment**
  - **Appearance, character**
  - **Safety, security**
  - **Parking**

84

This photo is of Legacy Park in Plano, Texas. Traffic has been calmed with on-street parking and improved pavement, markings, and bollards. This is a safe place for pedestrians, is convenient for vehicular traffic, and is attractive to business and customers.

Transportation Roles
Guide Growth by Location of Transportation Facilities

- Roads
- Interchanges
- Transit stations
- Other transportation terminals
  - Truck/freight
  - Airports
  - Ports
  - Other multimodal



85

Major transportation interchanges can affect land uses and growth patterns. This photo is of an interchange of freeways where highway system access is high, making the site an ideal location for warehousing and distribution uses.

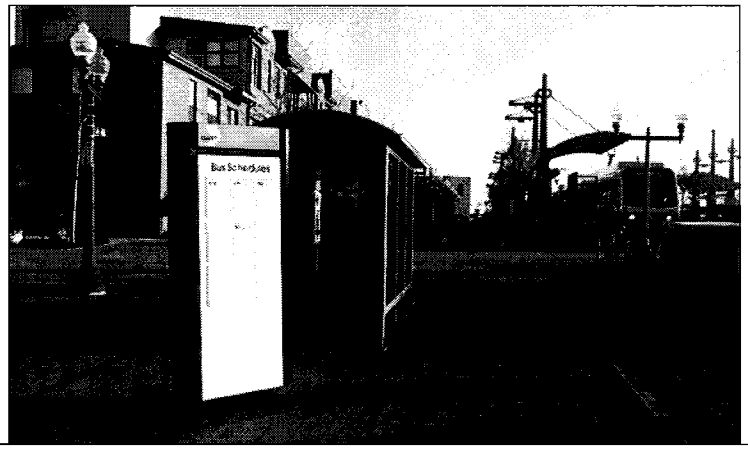
Question to engage the audience in discussion:

Where in your community does this type of opportunity exist for industrial or warehousing/shipping zones?

Access management affects development at the site level, as well as on a regional scale.

Transportation Roles
Multimodal

- Provide travel choices and incentives
- Reduce reliance on driving



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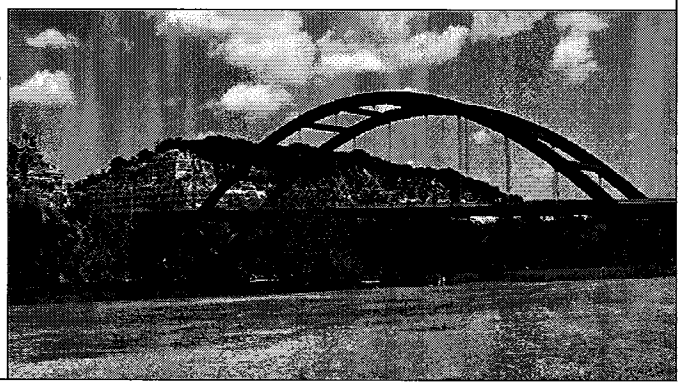
Transportation roles: continued from prior slide

•Incentives, disincentives – provide incentives (or disincentives) to travel other than by driving; examples can include transit-oriented development; transit amenities such as attractive bus stops and pedestrian connections; preferential parking for vanpools and carpools, etc.

Transportation choices should be well coordinated and multi-modal. This photo is of the DART multimodal transit stop in downtown Plano, Texas. Note the schedule kiosk for bus and rail transit, the bike rack, covered waiting area with seating, and paved walkways. A new apartment development fronts right on to the station. This site brings many modes together for ease of transfer.

Transportation Roles
(Economic) Sustainability

- Business and living environments
- Protection of sensitive resources
  - Agricultural land
  - Forests
  - Open space
- Appearance



All of the above factors can help to increase sustainability of viable communities, regions, and states.

Photo: an aesthetically pleasing bridge on SH 360 in Austin, Texas, enhances this transportation project.

Transportation Roles
Quality of Life

- Choice to avoid congestion
- Comfort (from intrusion)
- Convenience
- Sense of place
- Aesthetics

The above factors contribute to most peoples' interpretation of quality of life.

Photo: A street redesigned to improve aesthetics and safety, and provide a sense of place.

Transportation Roles
Make Streets More Friendly

- "Calm," slower neighborhood traffic
- Safety and Security
- Appearance
- Comfort
- Walkability
- Amenities
- Connectivity
  - Convenience
  - Shorter distances

90

Transportation roles continued from prior slide.

The above are roles for friendly streets.

Photo: redevelopment area in mid-town area of Houston, Texas.

Question to engage audience in discussion:

Do local officials in your community receive many complaints about traffic in neighborhoods or business districts?

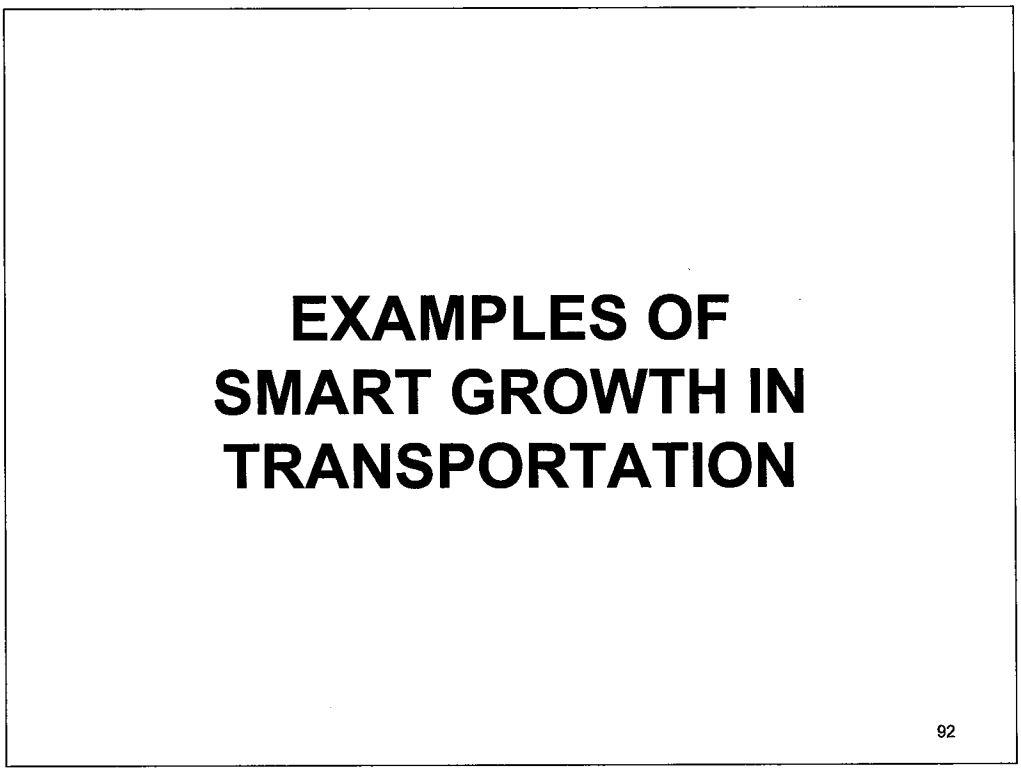
Do you see how a proactive approach might reduce such conflict?

Transportation Roles
Streetscape Functions

- Pedestrian-traffic separation
- Safety
- Security
- Restfulness
- Sense of place
- Friendliness

Self explanatory

Top photo: College Station Business Park in College Station, Texas.



The following slides give examples of different types of smart growth transportation techniques.

Transit

93

•Eastside Max LRT stop at Lloyd Center in Portland, Oregon. Multi-use development with office, hotel, regional retail, some residential, convention center, and arena. In part of downtown, a fare-free transit zone, even though it is about a mile away from downtown, encourages transit use.

Transit

94

•Portland downtown LRT is on a well landscaped street to make it more pedestrian and transit friendly.

Transit

95

•A San Diego Trolley pulls out of an office building built on air rights over the transit station.

Transit

96

•Gresham City Center Station brings bus and rail service together near a low-income redevelopment project in Gresham, Oregon.

•This project consists of offices, a community center, a parking garage, and townhouses.

Neighborhood

97

•Portland Eastside Max LRT station with adjacent transit-oriented apartment development.

Neighborhood

98

•Gresham, Oregon, Main Street. Notice old section in foreground and redesigned section in background. New section has sheltered parking lanes and sidewalk extensions to shorten crosswalk lengths, narrower traffic lanes, wider sidewalks, improved street landscaping and street furniture, lighting, etc.

Major Street

99

•Condos in city center redevelopment area in the mid-town area of Houston, Texas; streets are modified to provide landscaping and wider sidewalks as well as sheltered parking bays and sidewalk extensions to reduce crosswalk length.

Major Street

100

•Downtown baseball stadium built as in-fill redevelopment on former railroad lands and incorporating historic Union Station adjacent to proposed new residential development, Houston, Texas.

Urban Highway

101

•State highway in Oregon modified to provide sidewalk landscaping, bike lanes, and curb parking.

Urban Highway

102

•Martin Luther King Blvd. (State Highway 99) in Portland, Oregon, modified from former major state highway cross-section to four lanes with curb parking, landscaped median, and sidewalk landscaping.

Many of you have TxDOT affiliations. It's important to look at what other states are doing, since suggestions for successful TxDOT programs may be found in other states. Not all changes in transportation policy require changes in legislation, or even formal programs for implementation. The following slides summarize what we've seen of other DOT smart growth actions.

Maryland DOT
State Highway Administration

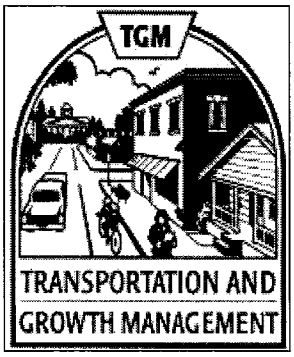
- Neighborhood conservation
- Transportation enhancement programs
- Access management
- Ridesharing program
- Scenic byways

104

This photograph is of a redeveloped area of downtown Gaithersburg, Maryland. This major roadway was made pedestrian friendly through the use of curb extensions, on-street parking, pedestrian-scale lighting, wide, well-delineated crosswalks, and a four-way light for pedestrian crosswalks.

Oregon DOT

- Planning grants
- Technical assistance
- Modified design standards
- Designated "special transportation areas"
- Access management
- Freeway moratorium in Portland
- Different investment criteria

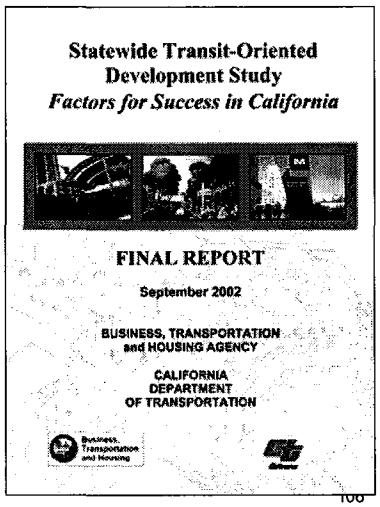


105

We talked about Oregon in depth. This list is of the key elements of the ODOT transportation and Smart Growth Management Plan.

Caltrans, California

- Grant programs
- Technical assistance
- Context-sensitive solutions
- Non-motorized travel
- Transit-oriented development
- Safe routes to school



Caltrans offers grant programs and technical assistance; trying more context-sensitive design solutions as well as grants to local agencies.

Florida DOT

- Growth management
- Adequate facilities requirement
- Access management
- Environmental preservation
- Funding programs
- Multimodal transportation districts

107

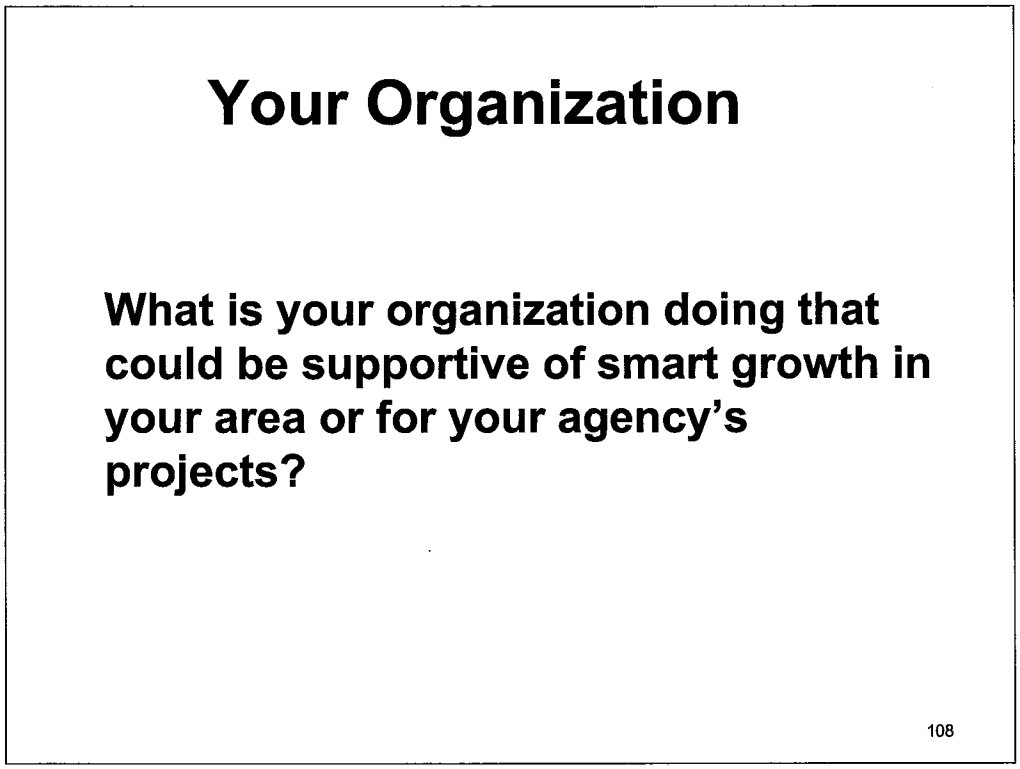
•Growth management – long-standing program with state playing role in conjunction with counties and cities

•Adequate facilities requirement – requires that development not overtax transportation and other public facilities; mitigation through developer improvements or impact fee programs

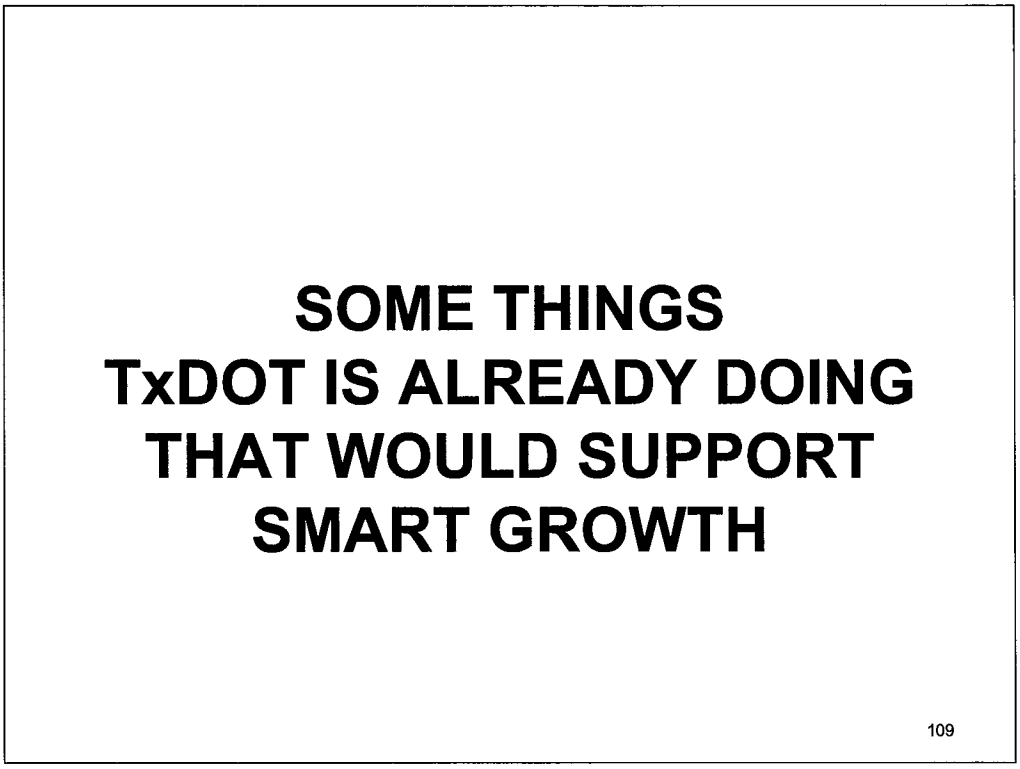
•Access management – to preserve capacity of existing roads

•Multimodal transportation districts – designated area where pedestrians are given highest priority and vehicles are of secondary importance to encourage use of modes other than personal vehicles

•Photo: Deland, Florida, a town village-type development deemed appropriate as a multimodal transportation district by FDOT.



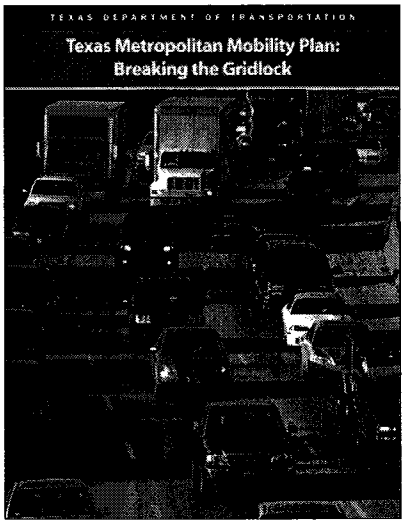
This discussion will lead into the next section.



TxDOT already has many programs and policies that can support smart growth at the local and regional levels.

TxDOT Existing (Smart Growth) Actions

- **Comprehensive plan participation**
  - **Statewide transportation plan**
  - **MPO regional transportation plans**
  - **Some local plans**



TxDOT:

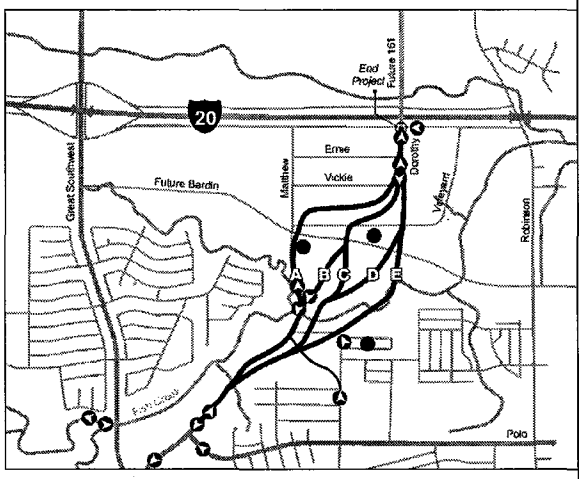
•Produces and updates a statewide transportation plan that can support the consolidated local and regional objectives as well as statewide objectives

•Coordinates with MPOs on regional transportation plans and funding programs

•Coordinates with many local municipalities, counties, and authorities on their local plans

TxDOT Existing (Smart Growth) Actions (cont.)

- **Highway location**
  - **Route selection**
  - **MISs or equivalent**
  - **EA, EIS**
- **"Bypasses"**
  - **Congested urban highways**
  - **Currently limited to new state roads**



111

TxDOT:

•Conducts highway location and design studies including Major Investment Studies (MIS), Environmental Assessments (EA), and Environmental Impact Studies (EIS), examining alternatives in accordance with sets of project objectives

•Considers environmental objectives and impacts, including local plans

•Evaluates feasibility of and builds bypasses to relieve in-town congestion or provide more cost-effective routes for through traffic currently passing through urban areas

Graphic: alignment alternatives for new section of an arterial in Grand Prairie, Texas area.

Question to engage audience in discussion:

How might this fulfill smart growth objectives?

TxDOT Existing (Smart Growth) Actions (cont.)

- Access management
  - New policy
  - Applies to street and property access
  - Rule (enforceable)
  - Can be used to protect right-of-way and capacity
  - Not yet envisioned as land development management tool

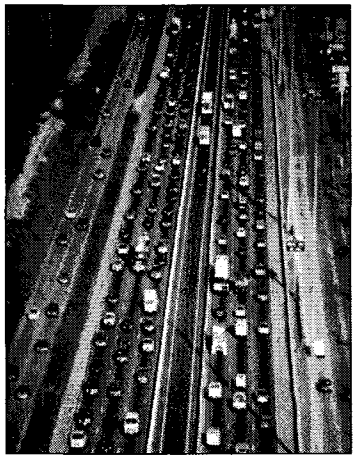
112

TxDOT:

•Has adopted a new, more comprehensive access management policy that will help to meet some smart growth objectives

TxDOT Existing (Smart Growth) Actions (cont.)

- **Enhancements**
  - **Sidewalks**
  - **Bike facilities**
  - **Streetscape, landscaping**
- **Context-sensitive design**
- **Transit and HOV priorities**
  - **Separated lanes**
  - **Buffered lanes**
  - **Transit, HOV queue jumpers**



113

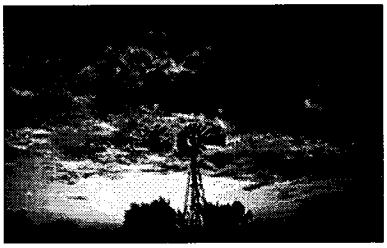
TxDOT:

•has an active highway enhancement program that has provided landscaping and other improvements consistent with smart growth and providing livable communities

•has supported transit and high-occupancy vehicle lane (HOV) priorities on freeways to help transit and ridesharing be more competitive and beneficial

TxDOT Existing (Smart Growth) Actions (cont.)

- **Support development and redevelopment**
  - Ramp additions and modifications
  - Capacity improvements anticipating development
  - "Economic development" roads
- **Environmental preservation**
  - Wetlands
  - Forests
  - Farm land
  - Open space



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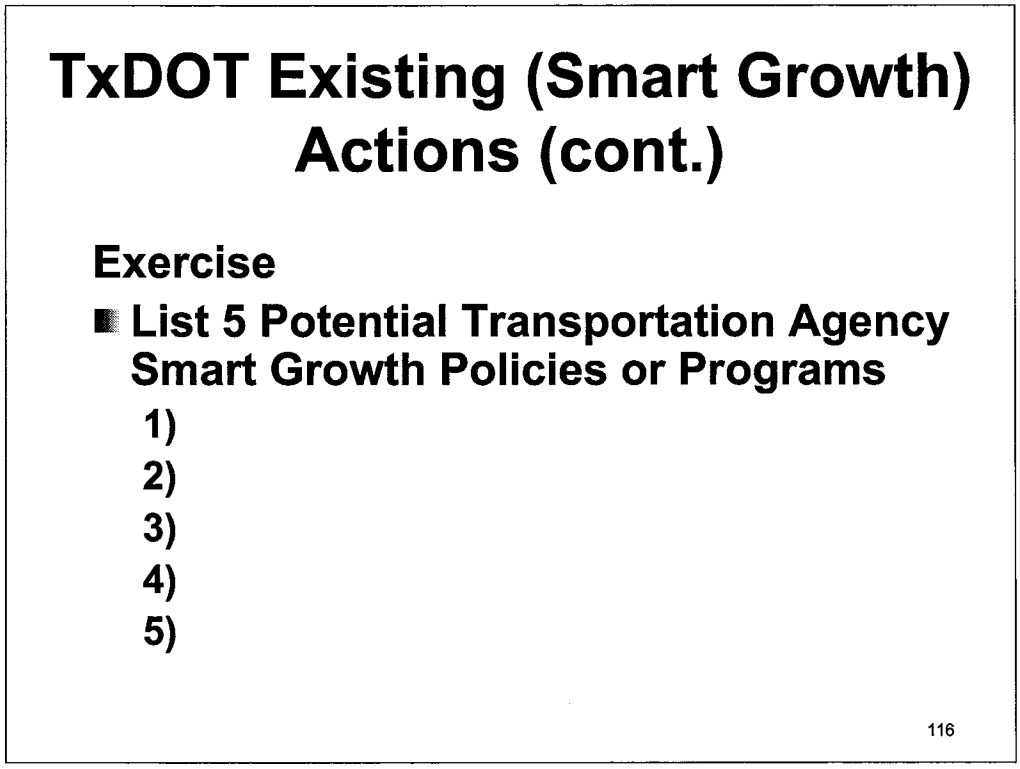
TxDOT also provides support for redevelopment and environmental preservation as parts of many of its construction projects.

TxDOT Existing (Smart Growth) Actions (cont.)

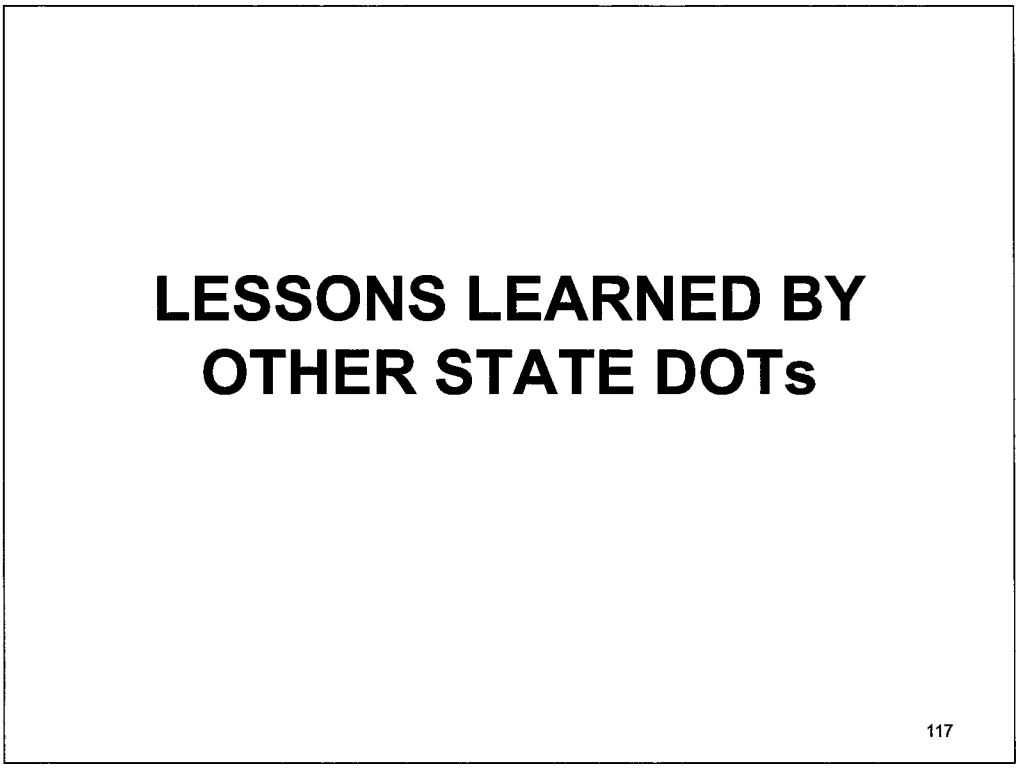
- Investment prioritization
  - Project selection
  - Funding prioritization
  - Criteria responsive to TxDOT objectives
  - Joint projects with other agencies
- Management and operations
  - Increase effectiveness and efficiency
  - Improve resource efficiency

115

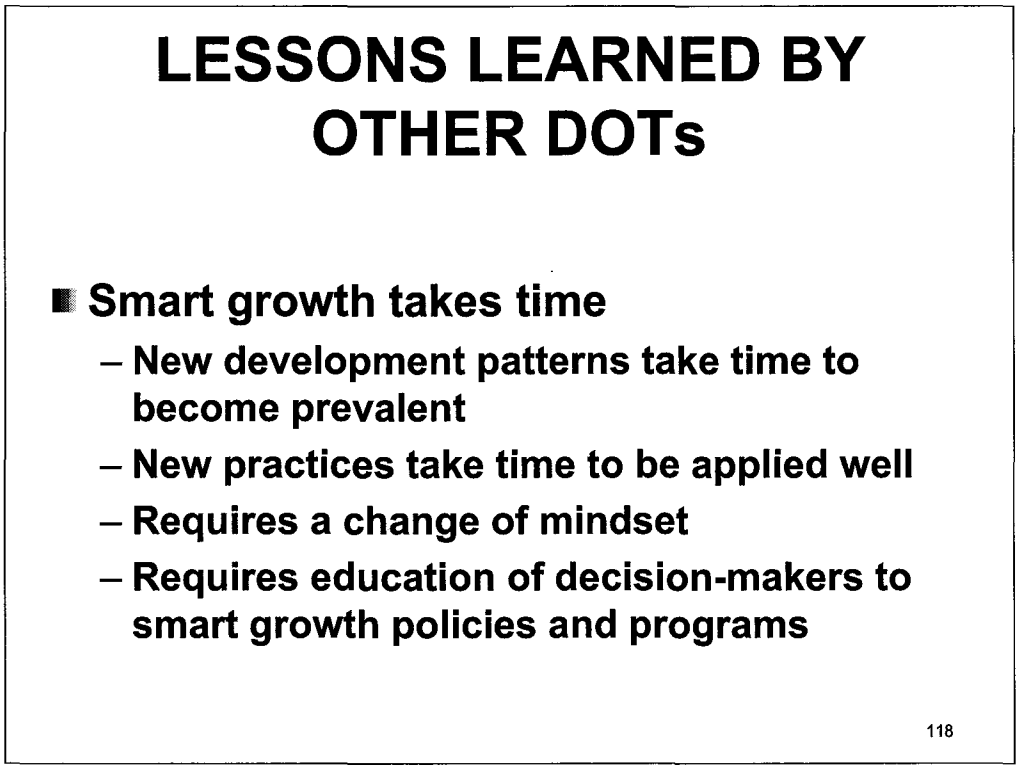
Self explanatory



Exercise to engage audience in discussion: Think of five potential smart growth transportation policies or programs that TxDOT, or your agency within TxDOT, could become involved in.



There are lessons to be learned by looking at the efforts of other DOTs in the U.S. We will review some of those lessons next.



Lessons learned by other DOTs:

•Smart growth takes time because much of it involves new development or redevelopment. Since cities do not grow or redevelop overnight, most aspects of smart growth need to be implemented on a continuous basis over many years.

•In addition, new practices take time to perfect and to implement consistently across a region or state.

•Smart growth involves changing the outlook and desires related to future development and desired conditions; education of policy-makers is needed, as it is for almost any major change.

Smart growth needs:

•Partnerships among agencies at all levels; smart growth needs *planning*, *transportation*, *public works*, *redevelopment*, *environmental*, *economic*, and *other* agencies and departments to all cooperatively pursue the various aspects of smart growth. Often chambers of commerce, builders associations, and other area business groups can also be key partners.

•Interagency communications and cooperation usually improve when smart growth is pursued. Common objectives bring agencies together.

•For success, implementing agencies need the proper tools. The state DOT or other state agencies are usually in the best position to provide assistance and funding to initiate programs.

•Grants are needed to expedite the process of starting and implementing smart growth (as in other programs). Usually smaller agencies have not had the necessary staff or technical resources to make the needed changes. States found that grants are needed; many provide at least planning grants.

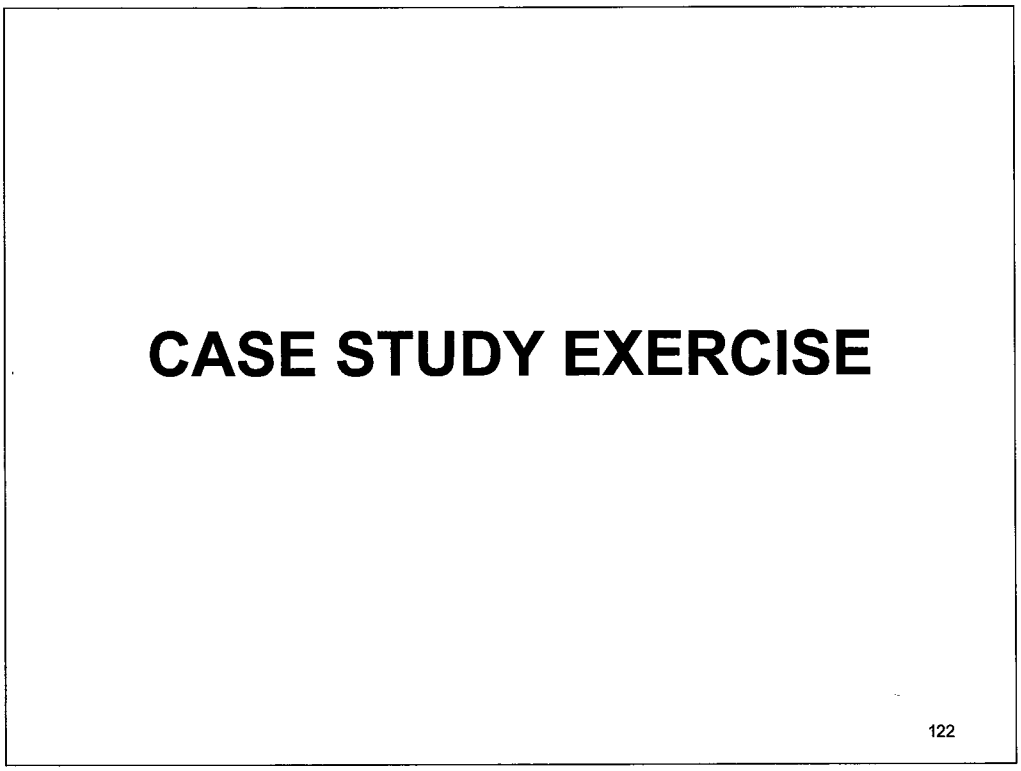
Experience has shown that:

•More specific, enforceable regulations work better than flexible policies. Too much flexibility has led to uncertainty on the part of several or all parties, delays in application/permit reviews, and dissatisfaction on the part of all due to uncertainties and delays.

•Flexible design standards can work for context-sensitive design, but it cannot be too flexible in general or reviews go very slow and concern about liability increases.

Lessons Learned, cont.

•Oregon cautioned about trying to start too many smart growth initiatives at once. They suggested a few at a time. Leadership from the top is most helpful in starting up.



We will now divide into groups and begin our hands-on case study analysis.

CASE STUDY

Teams of 3–5 people

- **To do:**
  - **Plan a new highway location between points A and B**
  - **Select a development site**
  - **Lay out access and general design concept**
  - **Other related smart growth suggestions**

123

Seminar case study:

Split class into groups of 3-5 people, depending on room layout and number of participants. Teams need to be able to talk and sketch together. Provide easel pads or similar size paper so teams can present their ideas. Participants need pencils and erasers, too.

•Problem statement:

Yourtown USA is a small city in the middle of the state. There is no city of any size within 75 miles. The city has a population of about 7,000, although 10,000 additional people live in small towns and rural areas within about 15 miles, mainly along State Highway 99 (SH 99). SH 99 passes through Yourtown's downtown, which is like many small downtowns – struggling to be viable. The existing businesses are tourist and convenience retail and a few restaurants. Yourtown's council and mayor have a plan to redevelop several blocks on the west side of downtown (site shown in aqua on slide 126). That site has about 40 acres, including existing streets. The city is willing to work with a developer to make a development viable, but wants to follow smart growth concepts.

Roy Adams has come to town proposing a 120,000 square foot discount store and another 80,000 square feet of retail. He says he needs about 25–30 acres minimum for the buildings, parking, and landscaping, etc.

Continued next page.

CASE STUDY

Teams of 3–5 people

- **To do:**
  - **Plan a new highway location between points A and B**
  - **Select a development site**
  - **Lay out access and general design concept**
  - **Other related smart growth suggestions**

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Notes – part 2:

Joe Smith has a 40 acre parcel for sale along SH 99 just outside the city limits on the east side of town (site in upper right corner on slide 126). He is actively seeking a buyer.

The Yourtown council and state DOT have discussed relocating and improving SH 99, especially the part west of County Road 410 (CR 410). They have agreed it needs to be done, but no alignment has been explored to date.

Your assignment, in teams of ___ people that will be selected, is to develop a plan to include at least the following:

•Site for the proposed development.

•Conceptual site plan showing general building configuration (outside walls) and entrance locations, parking lot, access points, and any special pedestrian provisions you think would be advantageous.

•New alignment for SH 99; it should bypass Yourtown's business district.

•Suggestions of how to get Roy Adams to develop at your recommended location and according to your plan.

•SH 99 has a 100 foot right-of-way through downtown Yourtown, with four moving lanes, a two-way left-turn lane, and 14 foot sidewalks. What should be proposed for this street after the new section of SH 99 is completed?

•How you will "sell" the plan to the developer, state DOT, and mayor and city council.

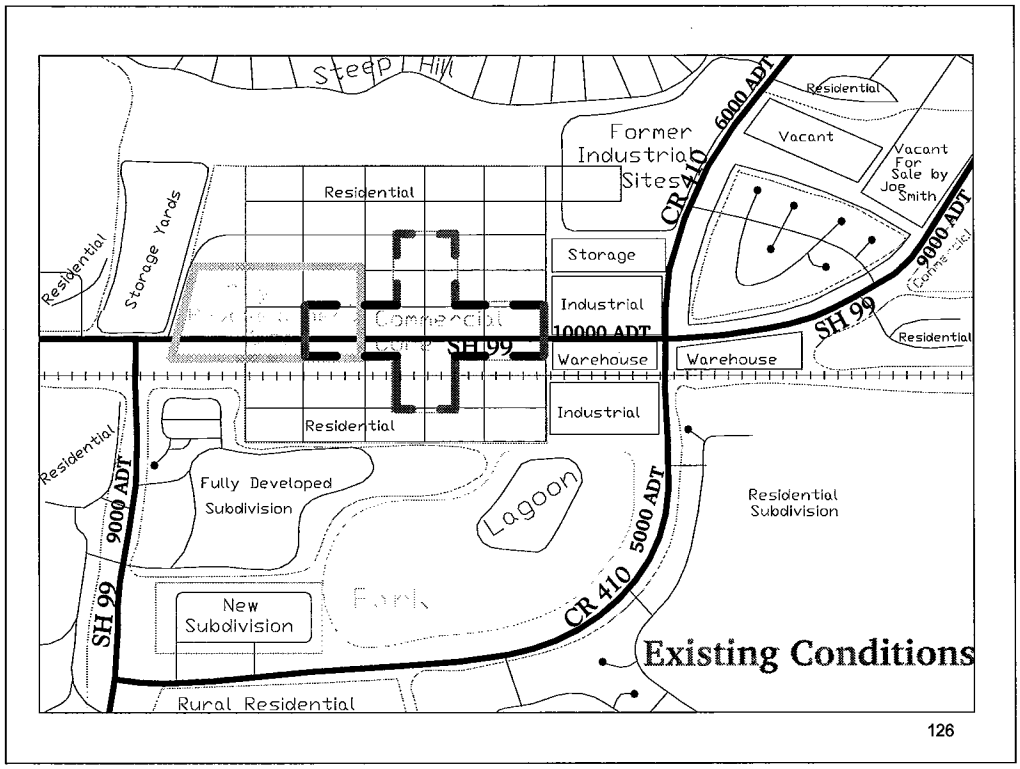
•You will have approximately ___ minutes (until ___ pm). At that time, each group will have about 5 minutes to concisely present its plan and arguments for doing it your way. Please use the large paper to sketch out your ideas. You need not be highly detailed; we are looking for concepts. Remember, you are now experts in smart growth, and that is what the city fathers are seeking.

CASE STUDY HANDOUTS

125

Instructor: The following "Existing Conditions" map is intended to be reproduced and handed out to participants for use in developing suggested recommendations.

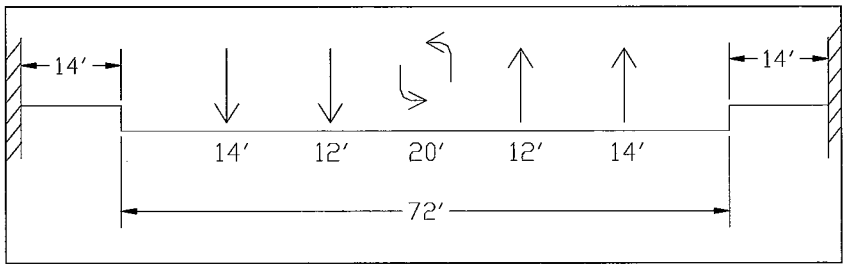
The presenter should have enough large plots of the sheet so each group will have one on which to sketch its solutions. The plots should be on 30" or 36" paper so it can be put on the wall or an easel and explained to all participants once all groups have developed their solutions.



This map shows existing conditions. If extra copies of this map have not been provided in the participant's workbooks, make and pass out copies so they can sketch ideas at 8½ x 11 size before sketching the final solution on a large sheet.

Smart Growth Street?

If SH 99 through downtown has the following cross-section:



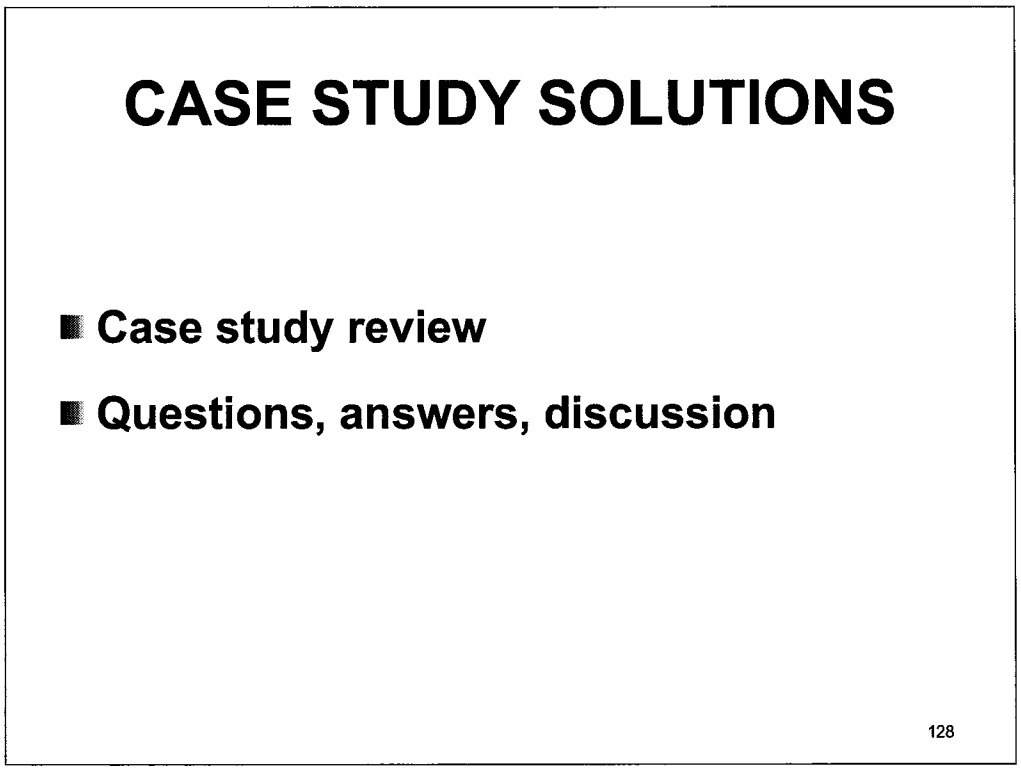
What would you recommend to make old SH 99 more compatible with a revitalizing business district with tourist- and convenience-oriented commercial development?

127

This is the cross section of SH 99 through downtown.

Let the groups develop their solutions for about 45 minutes. Participant knowledge levels may require more time or less time; watch progress of each group, answering questions as needed. Once all groups have sketched their solutions, ask each one to appoint a presenter and have each group make a 3-5 minute presentation of their proposed plan. Do not criticize any plan, but do point out strong and innovative features. Present the plan included in these slides only after all participant groups have presented. Describe the solution on the following slides as one way to do the plan, but not the only good one.

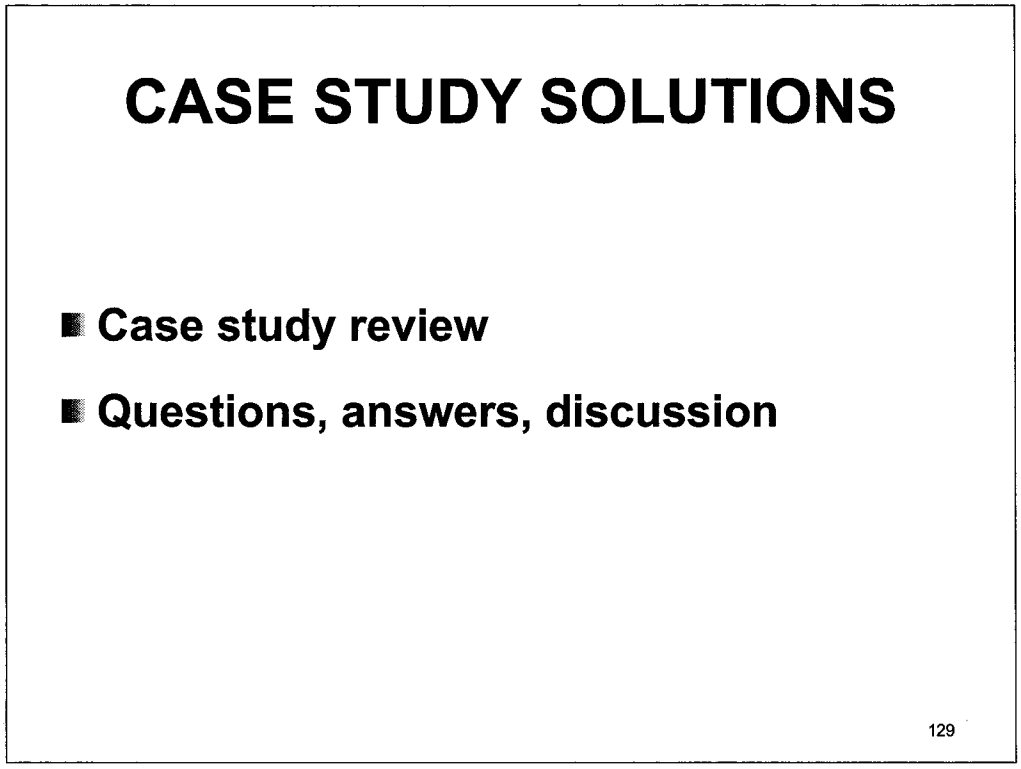
After all participant presentations have been completed and discussed, go to next slide and describe the solution provided.



Case study solution notes – part 1:

Route new SH 99 around the north side of downtown adjacent to the bottom of the hills. Connect to existing SH 99 through the storage yard at the west end and the vacant parcels at the east end. (Show slide 131 or hand out copies.) The city may help acquire property so they can redevelop what is left. Alternatively, CR 410 could be used if the county agrees and if right-of-way is sufficient. Access management will be easier on the north route since existing access along CR 410 includes both driveways and streets. We do not have enough information to select the best alternative.

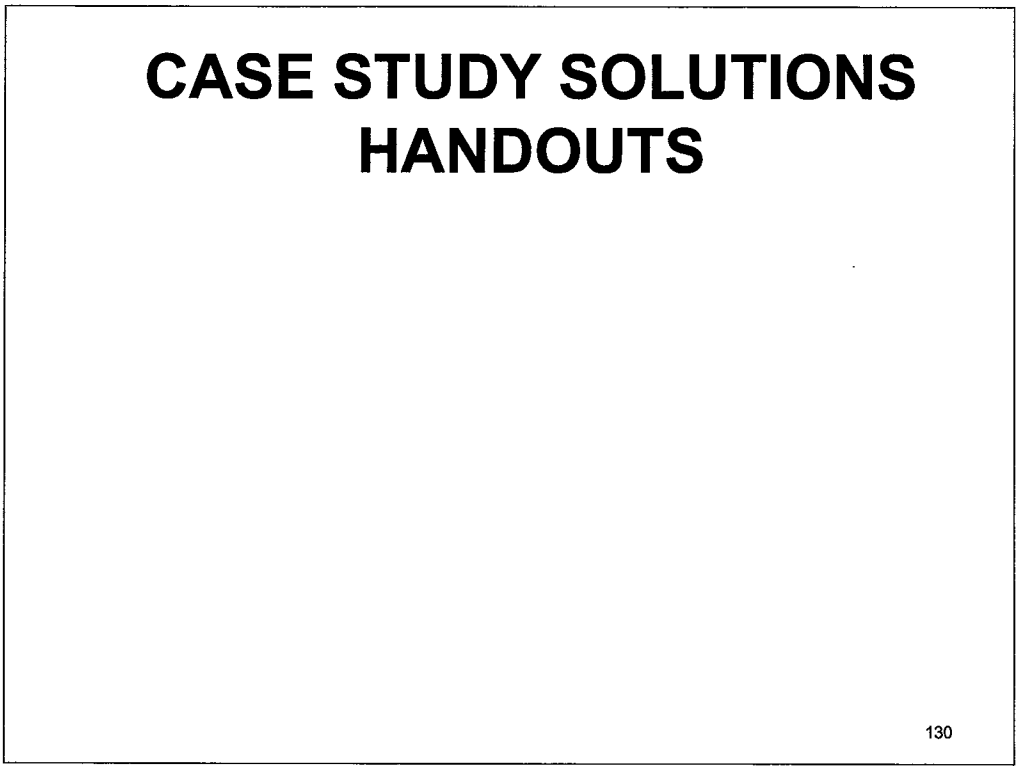
The preferred smart growth site for Roy Adams' new retail center is the city's redevelopment site. It will help strengthen the existing downtown business district and will provide a solid anchor. (Hand out copies of or show slide 132.) The site plan should orient the buildings to the east, possibly with main entrances of the intersection of old SH 99 as shown on the sketches in the presenter's binder. Parking should be on the west end of the development, with access from old SH 99. That will help to reinforce old SH 99's role as the main street and not require driveway access from the new section of SH 99.



Case study solution notes – part 2:

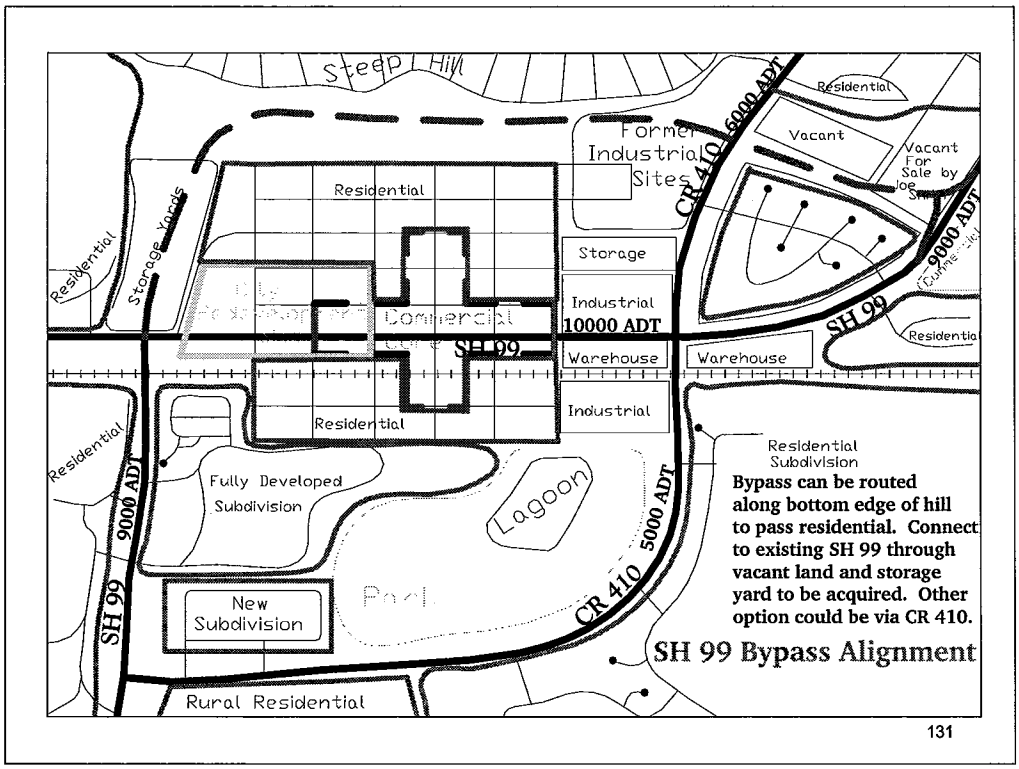
Old SH 99 will have less than the existing 10,000 average daily traffic (ADT) once the bypass is completed. It should be able to function with two moving traffic lanes (subject to confirmation in a traffic study). That would permit bike lane and curb parking to be added as well as wider sidewalks. (Hand out copies of slide 133.) Parallel parking would permit the widest sidewalks, which might be good if sidewalk dining is desired. More parking can be derived from angle parking, but safety considerations should be discussed before using that type of parking. The wider sidewalks will accommodate sidewalk landscaping and other street furniture, which can help to make the downtown area more attractive to tourists and other shoppers. Other alternative cross-sections could work depending on the Yourtown objectives for the street. They are also shown on slide 133.

Market the suggested changes as a way to make downtown the place to be and to give it special attractive character as well as a strong retail attractor (Roy Adams' development). Success will increase tourist trade and local jobs, and attract more tax dollars, too.

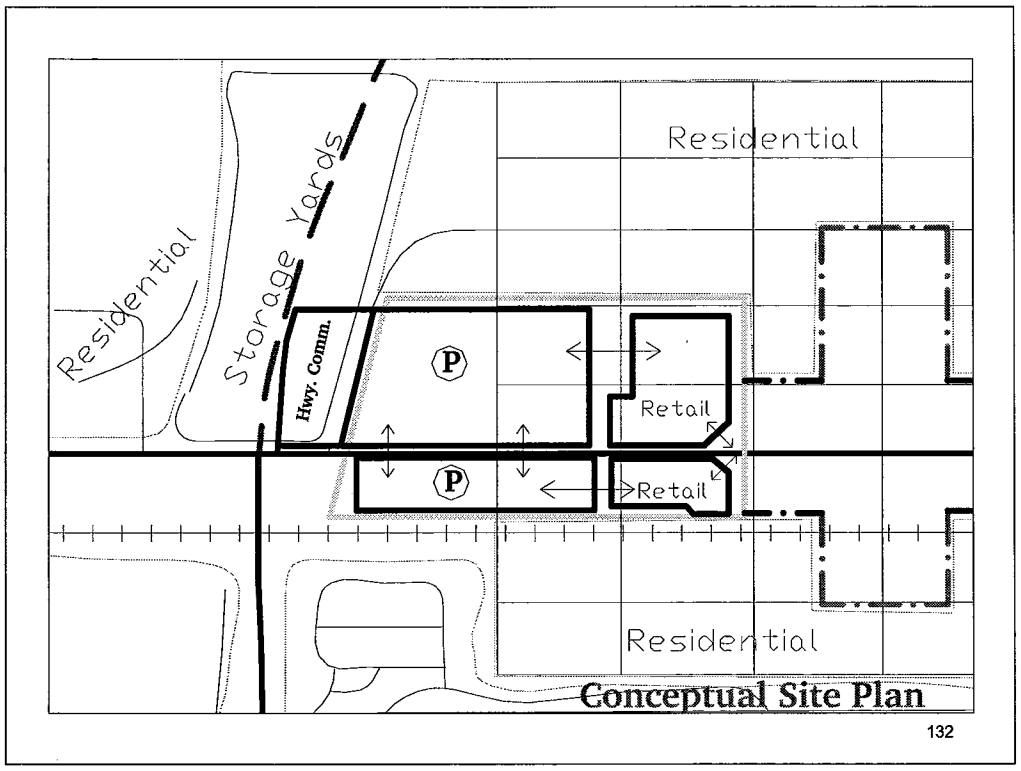


Instructor: The following sheets are not included in the participant's workbook and should be reproduced and handed out after the participants have completed their proposed recommendations:

1. SH 99 bypass alignment (slide 131)
2. Conceptual site plan (slide 132)
3. Alternative cross-section slide (slide 133)

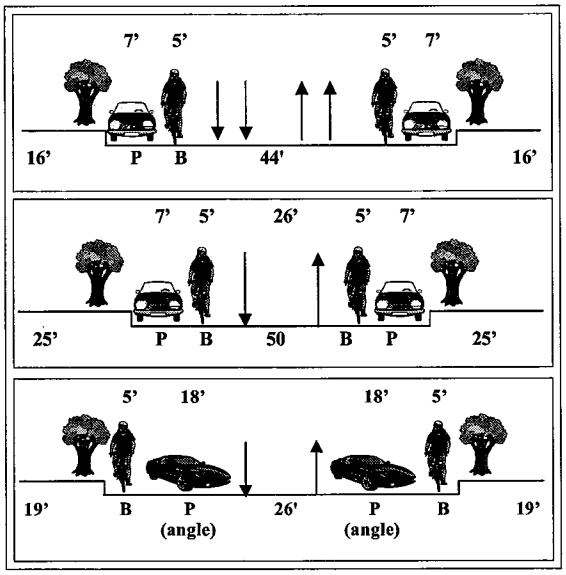


See slides 128-129 for explanation.



See slides 128-129 for explanation.

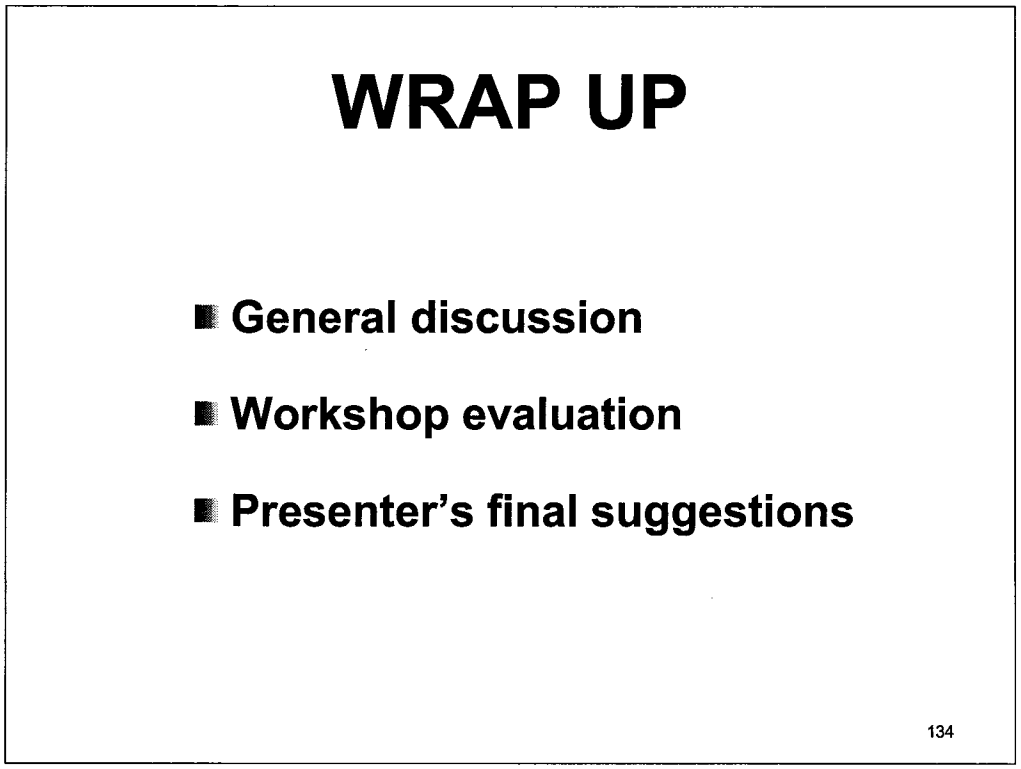
Alternative Cross-Sections



- **Alternative 1: 4 lanes, bike lanes, parallel parking**
- **Alternative 2: 2 lanes, parallel parking, bike lanes**
- **Alternative 3: 2 lanes, bike lanes, angle parking**

133

See slides 128-129 for explanation. Notes on right explain details of the cross-sections.



•General discussion – ask for questions, opinions, and/or whatever seems to be useful.

•Workshop evaluation – sponsor should provide the presenter with a form for participants to use to critique the workshop and provide suggestions for improvement. Have each participant complete one and hand it in as they leave. State that evaluations are anonymous unless they wish to identify themselves.

•Presenter's final suggestions – this is your time to make any final statements, suggestions, or ask for suggestions to improve the workshop. You may wish to remind participants how they will be able to use what they covered in this workshop. If short of time, you may skip this.

•Refer participants to websites like the ones listed; mention that some have extensive lists of links to other smart growth and related sites.

•Leave business cards near the exit for participants to use if they later want to call or e-mail with questions and wish some advice or information.

•Thank participants for coming and wish them luck using their smart growth knowledge and resource materials in their workbook.

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15. Supplementary Notes

Research performed in cooperation with the Texas Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration.
Research Project Title: Promoting Smart Growth Texas Style

16. Abstract

Smart growth is planned growth that integrates land use and transportation to create urban development that conserves resources and improves quality of life while providing adequate mobility. This workbook is part of workshop materials that assist the Texas Department of Transportation (TxDOT) in disseminating information on smart growth principles, practices, and applications to state, regional, and local planners, engineers, transportation professionals, and other interested parties.

The workshop presentation on smart growth was developed and is available as a separate resource in PowerPoint® form as well as in hardcopy in this participant's workbook. An instructor's guidebook has also been prepared to facilitate presentation of the workshop. To reinforce the principles of smart growth, and to introduce the smart growth design process, the workshop includes a hands-on case study to teach the practical application of smart growth in a simulated situation.

This workbook is intended to be given to workshop participants to facilitate understanding, note taking, and work on the case study. The presenter may provide additional material for insertion into this workbook.

17. Key Words	18. Distribution Statement
Smart Growth, Transportation Planning, Planning	

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		50	

INTRODUCING SMART GROWTH TO TEXAS: PARTICIPANT'S WORKBOOK

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Research Report 5-4238-01-P5
Project Number 5-4238
Research Project Title: Promoting Smart Growth Texas Style

Sponsored by the
Texas Department of Transportation
In Cooperation with the
U.S. Department of Transportation
Federal Highway Administration

March 2004

TEXAS TRANSPORTATION INSTITUTE
The Texas A&M University System
College Station, Texas 77843-3135

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the U.S. Department of Transportation, Federal Highway Administration, or the Texas Department of Transportation. This report does not constitute a standard, specification, or regulation.

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This project was conducted in cooperation with the Texas Department of Transportation (TxDOT) and the Federal Highway Administration (FHWA).

SMART GROWTH WORKSHOP

1

INTRODUCTIONS

- Instructors
- Participants
  - Organization/division
  - Location
  - Type of work you do
  - Exposure to smart growth

2

PURPOSE OF SEMINAR

- Introduce participants to smart growth
  - What it is
  - How local agencies may use it
  - Transportation in smart growth
    - Roles
    - Potential benefits and disadvantages
- Explain how TxDOT and other agencies can best use smart growth

3

Why Smart Growth?

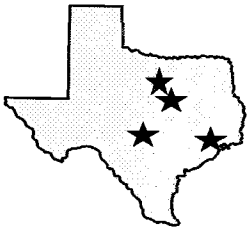
- Congestion
- Contributing sprawl
- Cost of "building out of congestion"
- Concerns about quality of life

4

Smart Growth Opportunities

Major Texas cities pursuing smart growth (SG)

- Austin
- Dallas
- Denton
- Houston



5

Smart Growth Opportunities (cont.)

Benefits:

- SG improves land use-transportation relationships
- SG presents opportunities to transportation agencies
  - Working together
  - Achieve better land-use and transportation results

6

Smart Growth Opportunities (cont.)

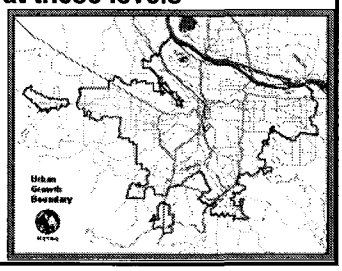
- This workshop is intended to help transportation and other planning professionals:
  - Understand the basics of SG
  - Better understand land use-transportation relationships
  - Work better with local agencies to meet objectives
  - See how SG may affect transportation-related decisions
  - Learn how SG can benefit both you and other agencies

7

Smart Growth

Goals may be set at these levels

- Statewide
- Regional
- Local



DEFINITION AND CHARACTERISTICS OF SMART GROWTH

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Smart Growth

Is...

- Planned
  - Transportation
  - Land uses
- Sustainable
  - Economic
  - Social
  - Environmental

10

Smart Growth

Is Not...

- "No growth"
- No new roads
- Against new highways
- Only slow, skinny streets
- Neo-traditional design
- Only high-density development
- Designed to discourage traffic everywhere

11

Smart Growth

Typical smart growth land-use objectives

- Compact development
- Infill and redevelopment
- Desired sites for business
- Connectivity
- Reduction of sprawl
- Open space preservation

12

Smart Growth

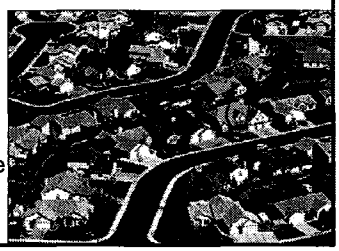
Typical site-level smart growth objectives

- Mixed use
- Higher density
- Job-housing balance
- Aesthetic appeal
- Walkability

Smart Growth

Typical smart growth transportation objectives

- Travel choices
- Walkability
- Networked streets
- Efficient transit
- Reduced vehicle use



Smart Growth

Expected smart growth results

- **Economic vitality**
- **Environmental sensitivity**
- **Efficient use of resources**
- **Sustainability over time**

15

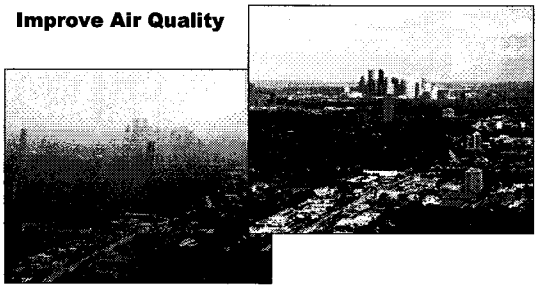
Smart Growth

- Specific goals and objectives vary by community
- No "one size fits all"

16

Smart Growth

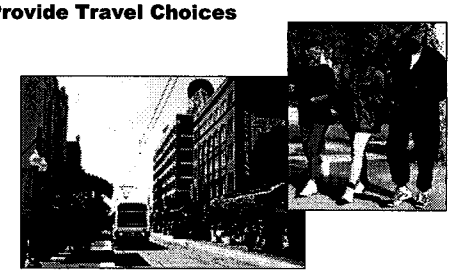
Improve Air Quality



17

Smart Growth

Provide Travel Choices



18

Smart Growth

Avoid Sprawl

19

Smart Growth

Applicability

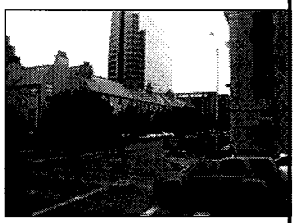
- State
- Region
- City
- Subarea
- Site

20

Smart Growth

Sample goals and objectives

- City
  - Reduce sprawl
  - Redevelop urban core
  - Relieve traffic congestion
  - Improve air/water quality
  - Make hike and bike transportation viable
  - Create transit-oriented development
  - Create better housing options



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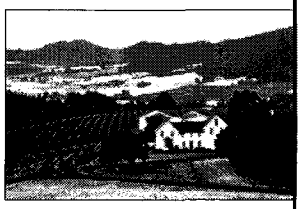
Smart Growth

Sample goals and objectives

- **State**
  - **Manage (rapid) growth**
  - **Plan comprehensively**
  - **Job-housing balance**
  - **Economic diversification**
  - **Preserve farmland, forests, open space**



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Smart Growth

Transportation examples

- **Systems, networks**
- **Travel modes**
- **Facility function and design**
- **Access management**

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Smart Growth

Transportation goals

- **Improve transportation/land use interaction**
- **Encourage non-driving modes**
- **Environmental compatibility**
- **Contribute to quality of life**

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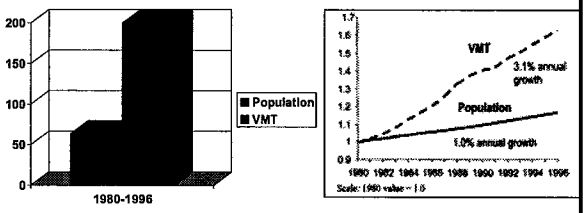
LAND USE–TRANSPORTATION RELATIONSHIPS

25

Land Use –Transportation Relationships



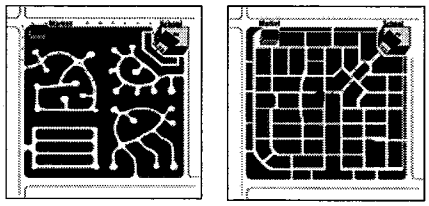
VMT is increasing 3 times as fast as population growth

26

Land Use –Transportation Relationships

Roadway system layout

- Networked neighborhoods can reduce internal VMT by up to 50%



Discontinuous cul-de-sacs

Well-connected network

27

Land Use –Transportation Relationships

Mixed-use development reduces the need for vehicle trips

28

Land Use –Transportation Relationships

Compact development
- Reduces trip distance
- Facilitates walking, bicycling, and transit

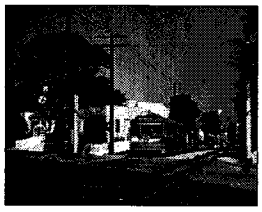
29

Land Use –Transportation Relationships

Access management can be used to influence land use and development location

30

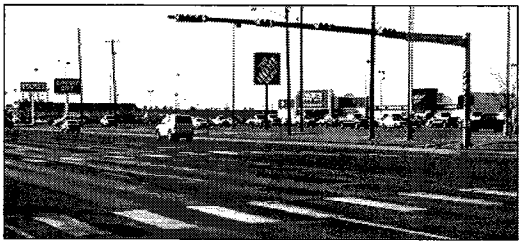
Land Use –Transportation Relationships



Accessibility
- Leads land development
- Influences land use

31

Land Use –Transportation Relationships



Design standards affect quality of people environment

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Land Use –Transportation Relationships

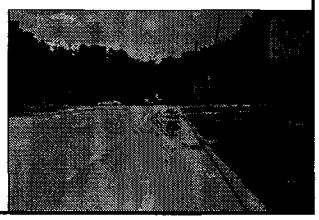
Design standards affect quality of people environment

33

Transportation Policies

Can affect

- Partnering in planning
- Accessibility of urban centers
- Roles of streets
- Project selection
- Investment priority



Transportation Policies

Can affect (cont.)

- Design standards
- Bike/ped provisions
- Access management
- Transit prioritization and transit-oriented development (TOD)

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WHY SOME STATES AND LOCAL AGENCIES ARE PURSUING SMART GROWTH

36

Why Others Are Pursuing Smart Growth

- Statewide goals
- Economic development
- Preservation of natural environment
- Quality of life
- Can't build way out of negatives
- Sustainability concerns
- Land limitations

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Reasons for Pursuing Smart Growth - State Examples

Maryland

- Support growth in planned areas
- Accommodate growth without sprawl
- Relieve traffic congestion
- Improve air, water, environmental quality
- Preserve farm, forest, and open land

SHA State Highway Administration

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Examples Maryland Statewide Policies

- Policies
  - State smart growth act
  - Priority funding areas
  - Rural legacy program
  - Brownfield laws
  - "Live near your work" program
- Goals
  - Save natural resources
  - Support existing communities
  - Reduce infrastructure costs

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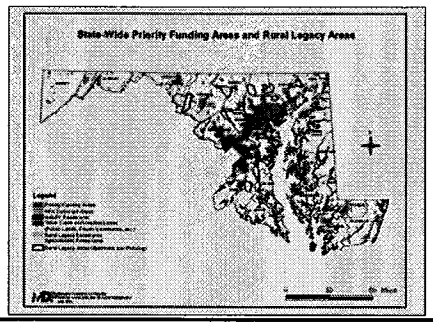
Examples
Maryland Statewide Policies



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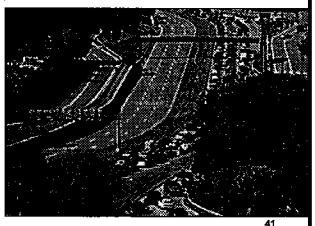
Reasons for Pursuing Smart Growth - State Examples

California

- Concern about impacts of rapid population growth
- Desire to reduce traffic congestion
- Address environmental issues

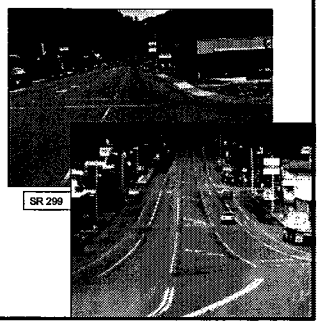


41

Examples
California

Redesign arterial highways to add:

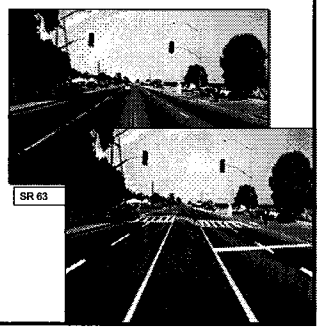
- Parking
- Bike lanes
- Widened sidewalks



Examples California

...more redesign of arterial highways to add:

- Medians
- Safer crosswalks
- Landscaping



Reasons for Pursuing Smart Growth - State Examples

Illinois

- Creation, expansion, and restoration of livable communities
- "Balanced growth"
- Economic development
- Preservation of open space
- Quality of life
- Corridor improvements

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Reasons for Pursuing Smart Growth - State Examples

Delaware

- Economic development and growth
- Travel opportunities and choices
- Preserving quality of life
- Conserving open space
- Cost-effectiveness
- Planning and coordination

Governor Minner's Livable Delaware agenda

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Reasons for Pursuing Smart Growth - State Examples

Oregon

- Preserve farmland, forests, open space
- Diversify economy; reserve needed land
- Limit sprawl
- Plan comprehensively
- Create safe, economic transportation system

ODOT/DLCD TGM Transportation & Growth Management Program

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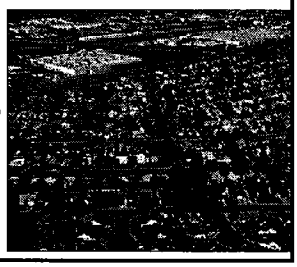
Examples State of Oregon

Initiated over concerns about

- Rapid growth
- Quality of life
- Consumption of farmland, forests, and other open space
- Sustainability



Examples State of Oregon (cont.)

- Statewide approach
- Five departments work together
  - Transportation
  - Land conservation and development
  - Environmental quality
  - Economic development
  - Housing and community services
- Comprehensive planning basis

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Examples
State of Oregon (cont.)

- Land use controls through comprehensive plan requirements
  - 240 municipalities
  - 36 counties
  - 3 regions
  - All plans simultaneous in each region

49

Examples
State of Oregon (cont.)

- Comprehensive plans (approved by state)
  - Must meet 19 state goals
  - Land use
  - Transportation
  - Many other factors
- Urban growth boundaries (UGBs)

50

Examples
State of Oregon (cont.)

- State Transportation Rule
  - Transportation system plan
    - Very comprehensive
    - Multimodal
    - Requires implementation plan
      - Policies
      - Regulations, e.g.,
        - Subdivision, zoning, access management
      - Funding plan

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Examples
State of Oregon (cont.)

- Transportation system plan (cont.)
  - State must approve
  - Adoption constitutes land-use action

52

Examples
State of Oregon (cont.)

Must:

- Increase densities near
  - Transit stations
  - Major employment areas
  - Major retail areas
- Designate lands to improve job-housing balance
- Reduce VMT/capita
  - 5%-10% first 20 years
  - 5% next 10 years

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Examples
State of Oregon (cont.)

- Oregon Highway Plan
  - Designates "special transportation areas" and other special areas
  - Encourages development to occur where planned
  - Designates "expressways"
    - Major connecting routes
    - Acquire access rights
  - Access management

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Examples
State of Oregon (cont.)

- Transportation Growth Management Program
  - Grants
  - Advocacy
  - Education
  - Technical assistance
- Modified design standards

55

Examples
State of Oregon (cont.)

- Results
  - All agencies have comprehensive plans
  - Urban sprawl contained (~10% of prior consumption per capita)
  - Smaller (~30%) lot sizes
  - Higher density (+17%)
  - Lower infrastructure costs
  - More complementary state investments
  - Access management working to manage development
  - State roads becoming "friendlier" to communities

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Examples
Portland Region

- Initiation
  - Area concerns
    - Rapid growth and sprawl
    - Infrastructure, service cost concerns
    - Projected congestion
    - Quality of life
  - Established regional government 1978
    - To manage regional growth
  - Adopted UGB 1979 (24 cities)

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Examples
Portland Region (cont.)

- Strategy
  - More efficient use of land
    - Compactness
    - Density
  - Maintain separation from external communities
  - Business centers on main streets, transit routes
  - Protected open space
  - True multimodal transportation system
  - Diverse housing choices
  - 6% - 8% increase in UGB over 50 years

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Examples
Portland Region (cont.)

- Other features
  - No additional freeway expansions
  - Use transit to shape development
    - Transit station communities
  - Rural reserves and open spaces
  - Industrial areas and freight terminals
  - Regulation of large retail development

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Reasons for Pursuing Smart Growth - City Examples

Portland Region

- Limit sprawl
- Reduce VMT per capita
- Provide travel choices
- Create safe, stable neighborhoods
- Reduce dependence on motor vehicles
- Promote vibrant culture and economy
- Protect habitats for wildlife and people

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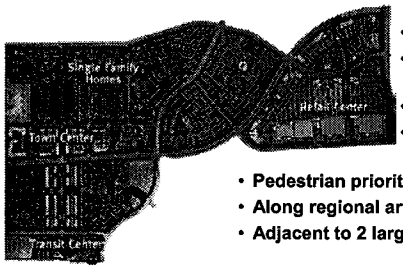
SMART GROWTH PROJECT EXAMPLES

61

Example – New Development Orenco Station, Portland area



- Regional center
- Transit-oriented development
- Mainly residential
- New urbanist design concept
- Pedestrian priority and friendly
- Along regional arterial road
- Adjacent to 2 large employers

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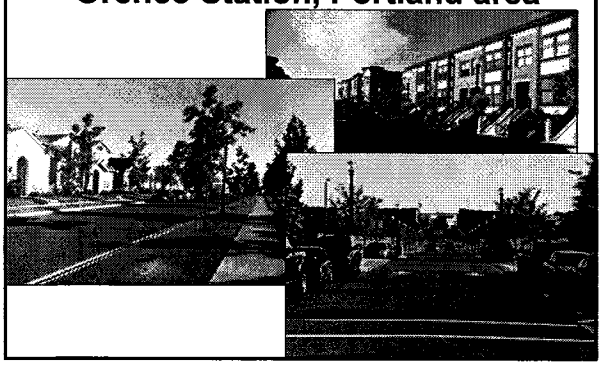
Example – New Development Orenco Station, Portland area



Example – Redevelopment Gresham, Oregon

- Objectives
  - Economic development
  - Sustained growth

64

Example Gresham, Oregon (cont.)

- Actions
  - Comprehensive plan
  - Land assembly
  - People-friendly streets
  - Main Street revitalization
  - Smart growth design concepts
  - Concentrate development at LRT stations
  - Public facilities in growth centers

65

Example Gresham, Oregon (cont.)

66

Gresham Station
Gresham, Oregon (cont.)

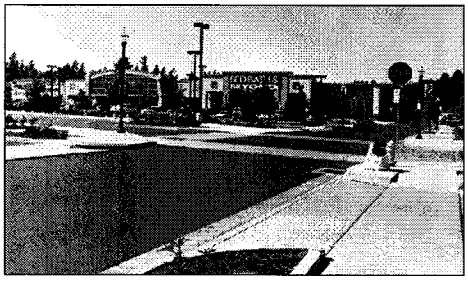
- Big-box retail center
- Transit station development
- Smart growth parking area
- Adjacent regional arterial being redesigned

67

Gresham Station
Gresham, Oregon (cont.)

68

Gresham Station
Gresham, Oregon (cont.)



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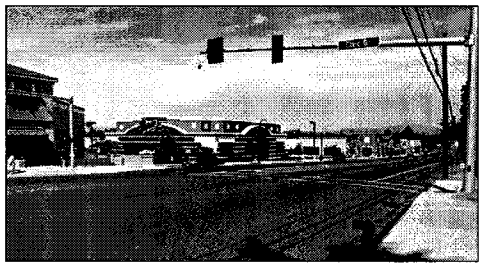
Gresham Station
Gresham, Oregon (cont.)



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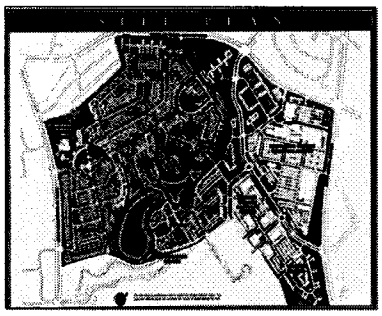
Example – New Development
Kentlands in
Gaithersburg, Maryland



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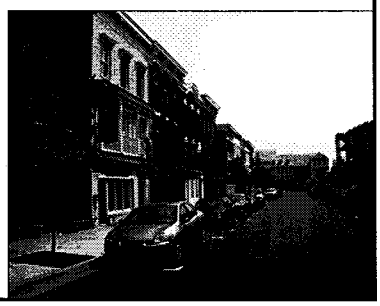
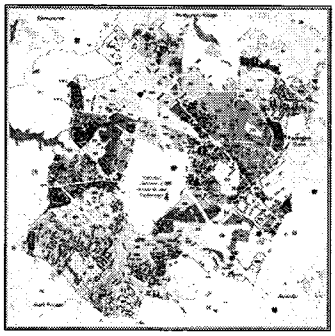
Kentlands
Gaithersburg, Maryland

- New urbanist design
- Dense, compact development
- Mixed uses
- Walkable



Kentlands
Gaithersburg, Maryland (cont.)



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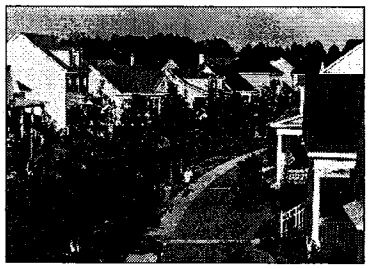
Example – New Development
Celebration, Orlando, Florida, area

- Mixed-use residential community
- New urbanist design concept
- Town center concept
- Highly walkable



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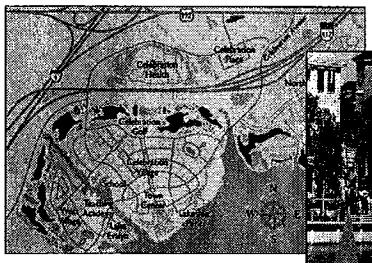
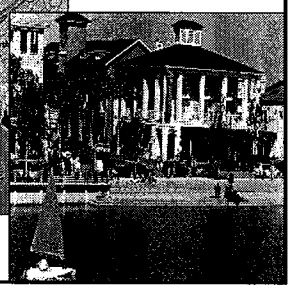
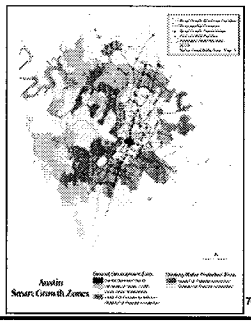
Celebration
Orlando, Florida, area





Example – Infill and Redevelopment Austin, Texas

- Objectives
  - Determine how and where to grow
  - Improve quality of life
  - Enhance tax base



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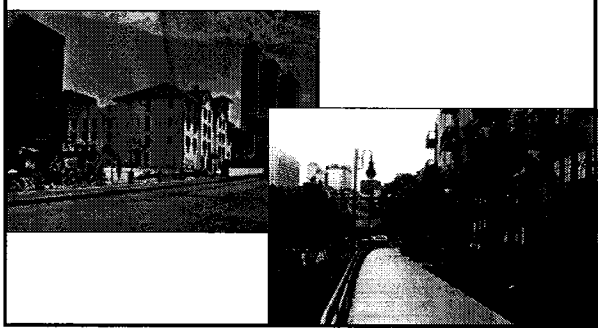
Example Austin, Texas (cont.)



Example Austin, Texas

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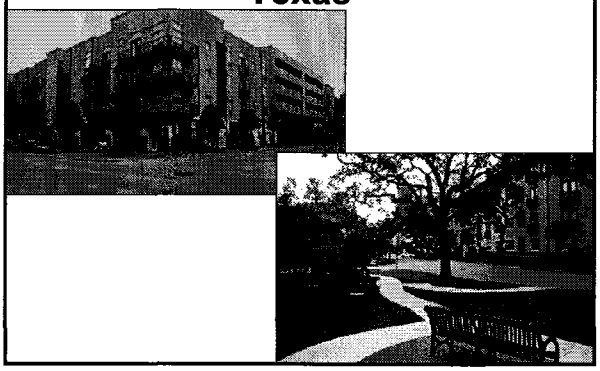
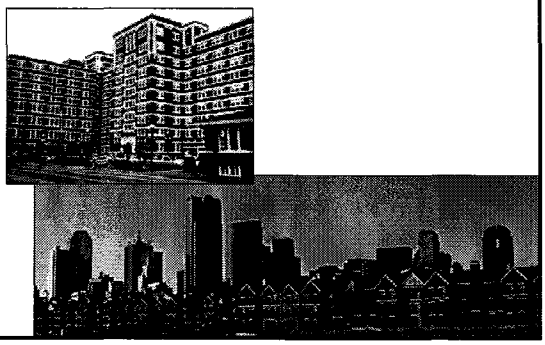
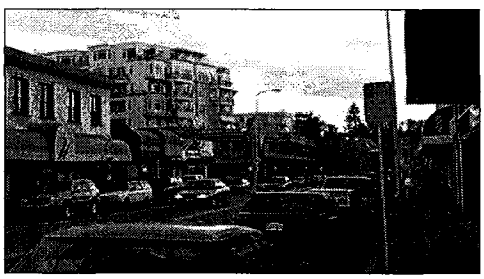
Other Examples – Houston, Texas



Other Examples – Dallas, Texas



Other Examples – Downtown Kirkland, Washington



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ROLES OF TRANSPORTATION IN SMART GROWTH

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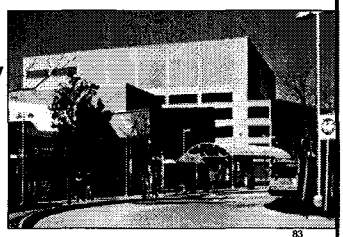
Transportation Roles
Accessibility

- Shape development
  - Location of transportation facilities
  - Access policy
  - Investment priority
- Influence markets by changing accessibility to business



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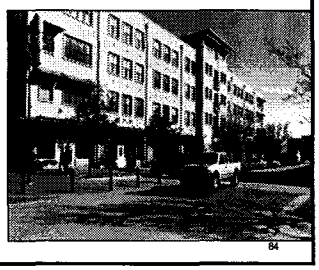
Transportation Roles
Accessibility (cont.)

- Influence conditions in adjacent area
  - Traffic presence, noise
  - Pedestrian environment
  - Appearance, character
  - Safety, security
  - Parking



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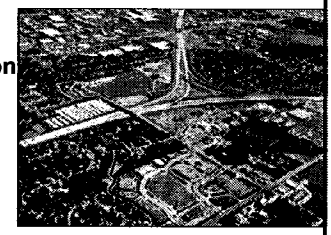
Transportation Roles
Guide Growth by Location of Transportation Facilities

- Roads
- Interchanges
- Transit stations
- Other transportation terminals
  - Truck/freight
  - Airports
  - Ports
  - Other multimodal



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Transportation Roles
Guide Growth through Access Management

- Area
- Street system access to highway system
  - Location
  - Site
  - Control conflict points
    - Traffic, pedestrian, bicycle

86

Transportation Roles
Multimodal

- Provide travel choices and incentives
- Reduce reliance on driving

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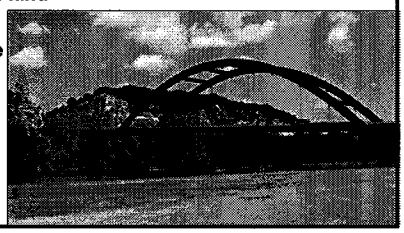
Transportation Roles
(Economic) Sustainability

- Business and living environments
- Protection of sensitive resources
  - Agricultural land
  - Forests
  - Open space
- Appearance



Transportation Roles
Quality of Life

- Choice to avoid congestion
- Comfort (from intrusion)
- Convenience
- Sense of place
- Aesthetics

Transportation Roles
Make Streets More Friendly

- "Calm," slower neighborhood traffic
- Safety and Security
- Appearance
- Comfort
- Walkability
- Amenities
- Connectivity
  - Convenience
  - Shorter distances

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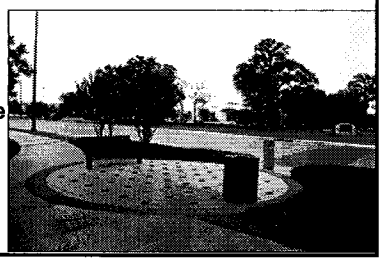
Transportation Roles
Streetscape Functions

- Pedestrian-traffic separation
- Safety
- Security
- Restfulness
- Sense of place
- Friendliness



EXAMPLES OF SMART GROWTH IN TRANSPORTATION

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Transit

93

Transit

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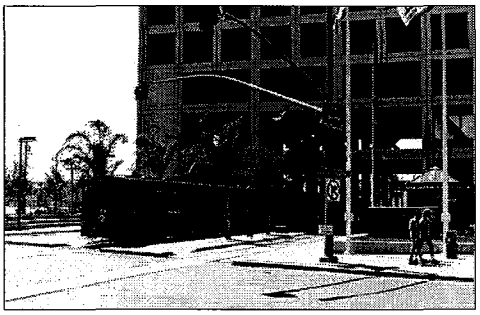
Transit



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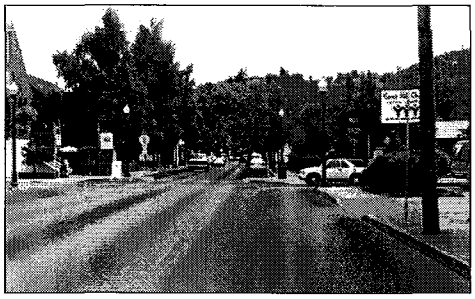
Transit

96

Neighborhood

97

Neighborhood



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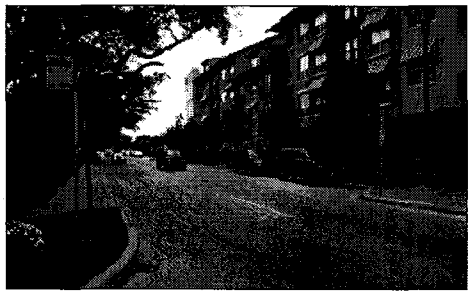
Major Street



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Major Street

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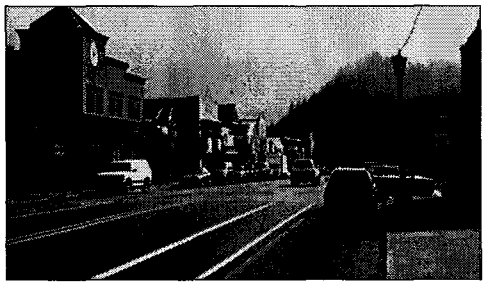
Urban Highway



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Urban Highway

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WHAT SOME OTHER STATE DOTS ARE DOING

103

Maryland DOT
State Highway Administration

- Neighborhood conservation
- Transportation enhancement programs
- Access management
- Ridesharing program
- Scenic byways

104

Oregon DOT

- Planning grants
- Technical assistance
- Modified design standards
- Designated "special transportation areas"
- Access management
- Freeway moratorium in Portland
- Different investment criteria

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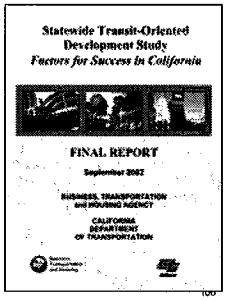
Caltrans, California

- Grant programs
- Technical assistance
- Context-sensitive solutions
- Non-motorized travel
- Transit-oriented development
- Safe routes to school



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Florida DOT

- Growth management
- Adequate facilities requirement
- Access management
- Environmental preservation
- Funding programs
- Multimodal transportation districts

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Your Organization

What is your organization doing that could be supportive of smart growth in your area or for your agency's projects?

108

SOME THINGS TxDOT IS ALREADY DOING THAT WOULD SUPPORT SMART GROWTH

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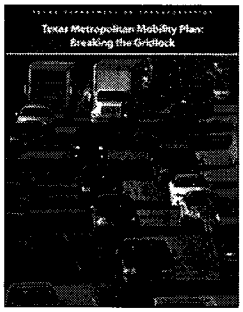
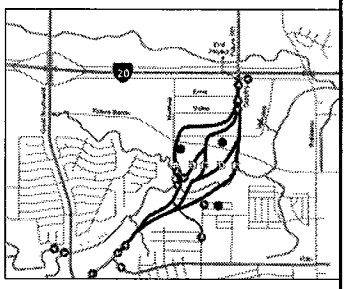
TxDOT Existing (Smart Growth) Actions

- Comprehensive plan participation
  - Statewide transportation plan
  - MPO regional transportation plans
  - Some local plans



TxDOT Existing (Smart Growth) Actions (cont.)

- Highway location
  - Route selection
  - MISs or equivalent
  - EA, EIS
- "Bypasses"
  - Congested urban highways
  - Currently limited to new state roads



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TxDOT Existing (Smart Growth) Actions (cont.)

- Access management
  - New policy
  - Applies to street and property access
  - Rule (enforceable)
  - Can be used to protect right-of-way and capacity
  - Not yet envisioned as land development management tool

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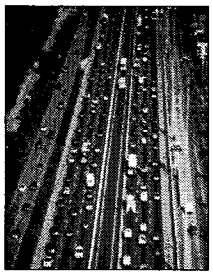
TxDOT Existing (Smart Growth) Actions (cont.)

- Enhancements
  - Sidewalks
  - Bike facilities
  - Streetscape, landscaping
- Context-sensitive design
- Transit and HOV priorities
  - Separated lanes
  - Buffered lanes
  - Transit, HOV queue jumpers



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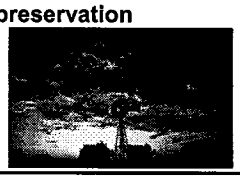
TxDOT Existing (Smart Growth) Actions (cont.)

- Support development and redevelopment
  - Ramp additions and modifications
  - Capacity improvements anticipating development
  - "Economic development" roads
- Environmental preservation
  - Wetlands
  - Forests
  - Farm land
  - Open space



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TxDOT Existing (Smart Growth) Actions (cont.)

- Investment prioritization
  - Project selection
  - Funding prioritization
  - Criteria responsive to TxDOT objectives
  - Joint projects with other agencies
- Management and operations
  - Increase effectiveness and efficiency
  - Improve resource efficiency

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TxDOT Existing (Smart Growth) Actions (cont.)

Exercise

- List 5 Potential Transportation Agency Smart Growth Policies or Programs

1)
2)
3)
4)
5)

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LESSONS LEARNED BY OTHER STATE DOTs

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LESSONS LEARNED BY OTHER DOTs

- Smart growth takes time
  - New development patterns take time to become prevalent
  - New practices take time to be applied well
  - Requires a change of mindset
  - Requires education of decision-makers to smart growth policies and programs

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LESSONS LEARNED BY OTHER DOTs (cont.)

- Requires partnership with local agencies
  - Both local and state involvement needed
  - Local agencies control development
- Communications improve among agencies
- Provide tools, technical assistance
  - Education and outreach
  - Need to demonstrate new ways
  - Problem solving builds partner support
- Grants needed to expedite process
  - Local agencies may not have resources for new requirements

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LESSONS LEARNED BY OTHER DOTs (cont.)

- More specific, enforceable regulations are more successful
  - Flexibility has led to slow decision-making
- Design standards can be flexible and work
  - Adapt to specific conditions
  - Some safety improvements in smart growth approaches

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LESSONS LEARNED BY OTHER DOTs (cont.)

- Turning some roads over to local agencies can be mutually advantageous
  - Reduce maintenance costs
  - Let local agencies address local problems
- Don't initiate too many things at once
  - Both at state and local levels
  - Minimize overload and confusion

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CASE STUDY EXERCISE

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CASE STUDY

Teams of 3–5 people

- To do:
  - Plan a new highway location between points A and B
  - Select a development site
  - Lay out access and general design concept
  - Other related smart growth suggestions

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Case Study Problem

Yourtown USA is a small city in the middle of the state. There is no large city within 75 miles. The city has a population of about 7,000, although 10,000 additional people live in small towns and rural areas within about 15 miles, mainly along State Highway 99 (SH 99). SH 99 passes through Yourtown's downtown, which is like most small downtowns – struggling to be viable. The existing businesses are tourist and convenience retail and a few restaurants.

Yourtown's council and mayor have a plan to redevelop several blocks on the west side of downtown (site shown in blue on your map). That site has about 40 acres, including existing streets. The city is willing to work with a developer to make a development viable, but wants to follow smart growth concepts.

Roy Adams has come to town proposing a 120,000 square foot discount store and another 80,000 square feet of retail. He says he needs about 25–30 acres minimum for the buildings, parking, and landscaping, etc. Joe Smith has a 40 acre parcel for sale along SH 99 just outside the city limits on the east side of town. He is actively seeking a buyer.

The Yourtown council and State Department of Transportation have discussed relocating and improving SH 99, especially the part west of County Road 410 (CR 410). They have agreed it needs to be done, but no alignment has been explored to date.

Your assignment, in teams of 3 to 5 people, is to develop a plan to include at least the following:

- Site for the proposed development.
- Conceptual site plan showing general building configuration (outside walls) and entrance locations, parking lot, access points, and any special pedestrian provisions you think would be advantageous.
- New alignment for SH 99; it should bypass Yourtown's business district.
- Suggestions of how to get Roy Adams to develop at your recommended location and according to your plan.
- SH 99 has a 100-foot right-of-way through downtown Yourtown, with four moving lanes, a 2-way left-turn lane, and 14-foot sidewalks. What should be proposed for this street after the new section of SH 99 is completed?
- How you will "sell" the plan to the developer, state DOT, and mayor and city council.
- You will have approximately until ___ PM to develop a plan. At that time, each group will have 5–10 minutes to concisely present your plan and arguments for doing it your way.

Please use the large paper to sketch out your ideas. You need not be highly detailed; we are looking for concepts. Remember, you are now experts in smart growth, and that is what the city fathers are seeking.

Websites for More Information

- www.smartgrowth.org
- www.smartgrowthamerica.com
- www.growingsensibly.org
- www.apta.com
- www.scenic.org
- www.pedestrians.org
- www.bikefed.org

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