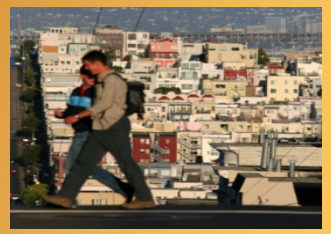

Smart Mobility FRAMEWORK

Transportation Planning Academy
District 5, San Luis Obispo
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Caltrans, Sustainable Community Planning





Definition of Smart Mobility

Smart Mobility moves **people and freight** while **enhancing** California's **economic, environmental** and **human resources** by emphasizing:

- Convenient and safe multi-modal travel
- Speed suitability
- Accessibility
- Management of the circulation network
- Efficient use of land

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Smart Mobility Purpose

Smart Mobility addresses:

- State mandate to find solutions to climate change by reducing GHG emissions
- Need to reduce per capita vehicle miles traveled
- Demand for a safe transportation system that gets people and good to their destinations
- CTP commitment to provide a transportation system that advances social equity and environmental justice




What Does a Smart Mobility Future Look Like?

- Highly-connected multi-modal networks
- Communities where walking, bicycling, and transit use are common choices
- Housing that allows people of all incomes and abilities to live within reasonable distance of important destinations
- Facilities for all modes that are designed and operated to enhance their surroundings





What Does a Smart Mobility Future Look Like?

Continued

- Environmental areas, natural and agricultural resources protected from adverse impacts
- Facilities for all modes that are designed and operated to enhance their surroundings
- Distinctive communities and places
- Overlap with Smart Growth Vison





What is Smart Growth

Coordinating (or integrating) land use and transportation planning and development.

Transportation Professionals need to:

- Understand how transportation investments can be consistent with principles and practices of land use planning and development
- Assess and evaluate how land use decisions effect the transportation system
- Increase viable options for people to access opportunities, goods, services, an other resources to improve livability
- Be aware of the effects of transportation systems on land use development demand, choices, and patterns.





Principles of Smart Mobility

1. **Location Efficiency** – Fit between physical environment and the transportation system
2. **Reliable Mobility** - Predictability and capacity focusing on economic productivity
3. **Health and Safety** - Safe, active and less polluting transportation
4. **Environmental Stewardship** - Protect and enhance natural environment
5. **Social Equity** - Equitably distributed transportation system
6. **Robust Economy** - Transportation improvements support economic health

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Location Efficiency

Factors to Achieve Smart Mobility Benefits:

Community Design –

- Development use, form, and location along with transportation system
- Support convenience, non-motorized travel, and efficient vehicle trips
- At *neighborhood and area scales*

Regional Accessibility –

- Development use, form, and location along with transportation system
- Destinations via non-SOV travel
- At *regional, interstate, and international scales*





Location-Efficient Community Design Elements

Development, Use, and Form Elements

- Building and use intensity greater
- Greater land use mix
- Proximity to local destinations
- Small blocks

Transportation System Elements

- Convenient and safe bike and walk access to destinations
- Multi-modal circulation network connectivity
- Well-connected complete street system

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Location-Efficient Regional Accessibility Elements

Development, Use, and Form Elements

- Affordable housing supply within and near urban
- Regional attractions at central locations with high accessibility

Transportation System Elements

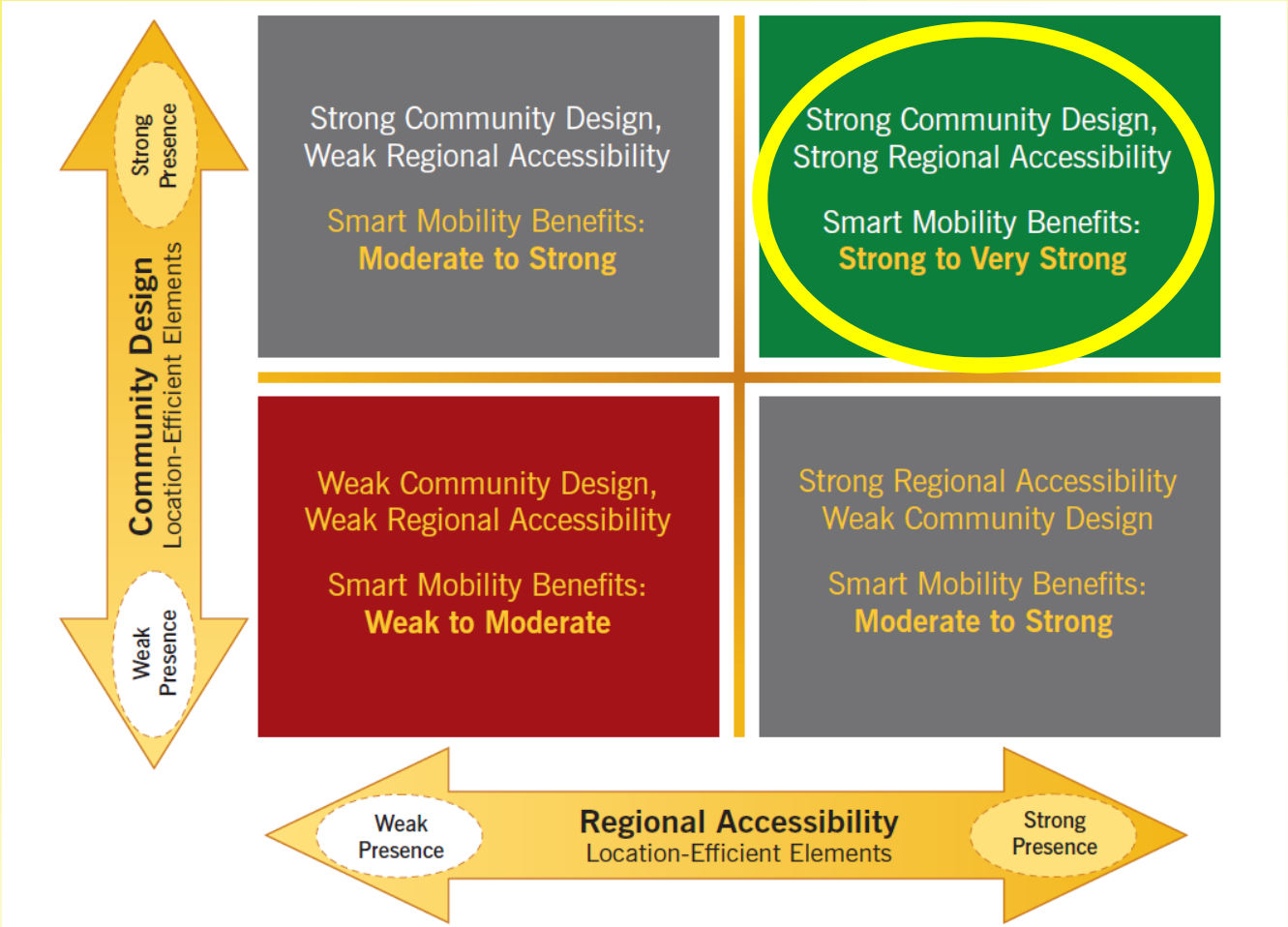
- Multi-modal circulation system connectivity to:
  - Other parts of the region
  - Interregional, neighborhood and district-level
- High level of multi-modal access for all
  - Major institutions and neighborhoods
  - Airports, ports and interregional rail facilities





Location Efficiency –
Greatest Potential for Smart Mobility

Strong Community Design + *Strong* Regional Accessibility



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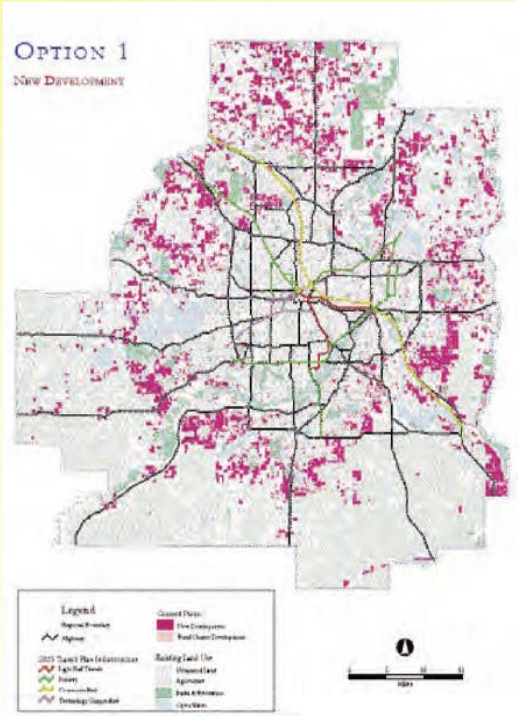
Smart Mobility Place Types

- Tool to Classify Cities, Towns, and Areas
- Investment, Planning, and Management Decisions
  - Urban Centers
  - Close-in Compact Communities
  - Compact Communities
  - Suburban Communities
  - Rural and Agricultural Lands
  - Protected Lands
  - Special Use Areas



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Application of Place Types

- Broadly categorizing areas at the scale of towns, cities, and regional subareas
- Identifying appropriate integrated transportation and land use planning activities
- Identifying types of transportation projects and programs that should be considered as possible priorities
- Identifying types of land use, community development and conservation activities
- Identifying activities, resources, and techniques that will support planning, investment and program decision-making.
- Bringing attention to opportunities to achieve higher levels of location efficiency





Smart Mobility Performance Measures

- Integrate Smart Mobility principles into policies, planning, and project development activities
- Compatible with Caltrans performance measures
- Degree of emphasis varies depending on user needs and environments
- Facilitate Caltrans' role in context sensitive solutions, sustainable communities strategies, and corridor system management plans
- Use ensures broader economic, social, and environmental considerations are addressed
- Help implement Caltrans mission, vision, and goals





17 Smart Mobility Performance Measures

Principle	Performance Measure*
Location Efficiency	1. Support for Sustainable Growth
	2. Transit Mode Share
	3. Accessibility and Connectivity
Reliable Mobility	4. Multi-Modal Travel Mobility
	5. Multi-Modal Travel Reliability
	6. Multi-Modal Service Quality
Health and Safety	7. Multi-Modal Safety
	8. Design and Speed Suitability
	9. Pedestrian and Bicycle Mode Share

* Most of the performance measures relate to multiple principles, but are grouped with the principle with which it is most strongly related.





17 Smart Mobility Performance Measures, continued

Principle	Performance Measure*
Environmental Stewardship	10. Climate and Energy Conservation 11. Emissions Reduction
Social Equity	12. Equitable Distribution of Impacts 13. Equitable Distribution of Access and Mobility
Robust Economy	14. Congestion Effects on Productivity 15. Efficient Use of System Resources 16. Network Performance Optimization 17. Return on Investment

* Most of the performance measures relate to multiple principles, but are grouped with the principle with which it is most strongly related.





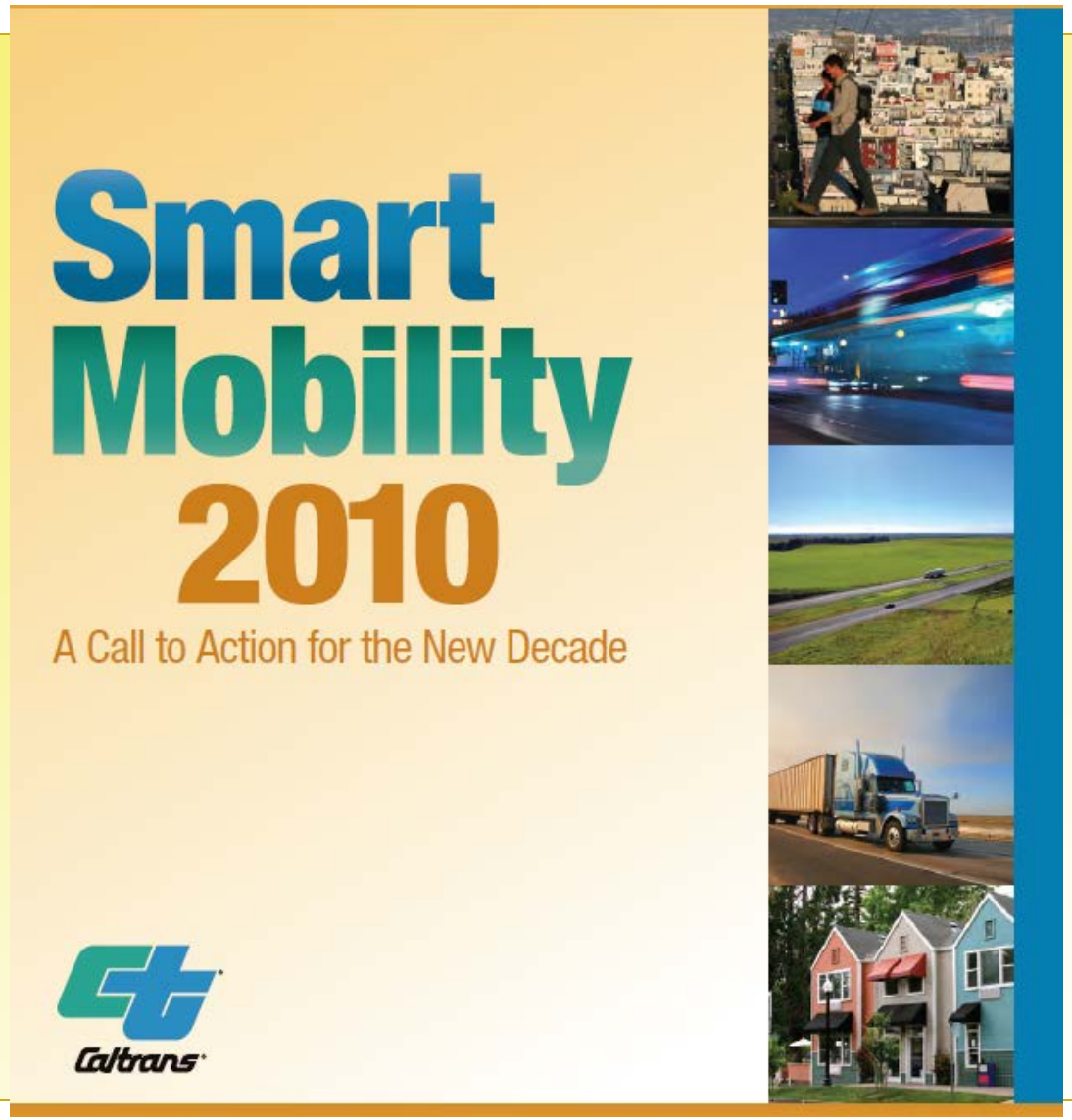
Performance Measures – Relative Priority by Facility and Place Type

- Applicability in Transportation Planning, Traffic Operations and Project Development
  - In most Place Types,
  - Difference is emphasis
- Performance Measures – High Priority in all Place Types
  - Modal collision rates – high individual and public costs
  - Speed suitability – roadway context and function
  - Travel time consistency – prevent unintended consequences

Resources







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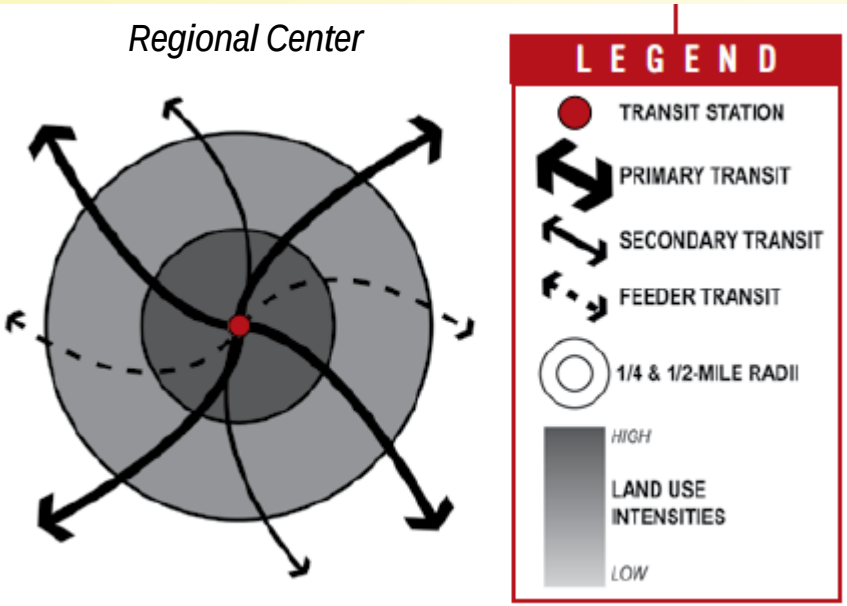
Resources

Reconnecting America



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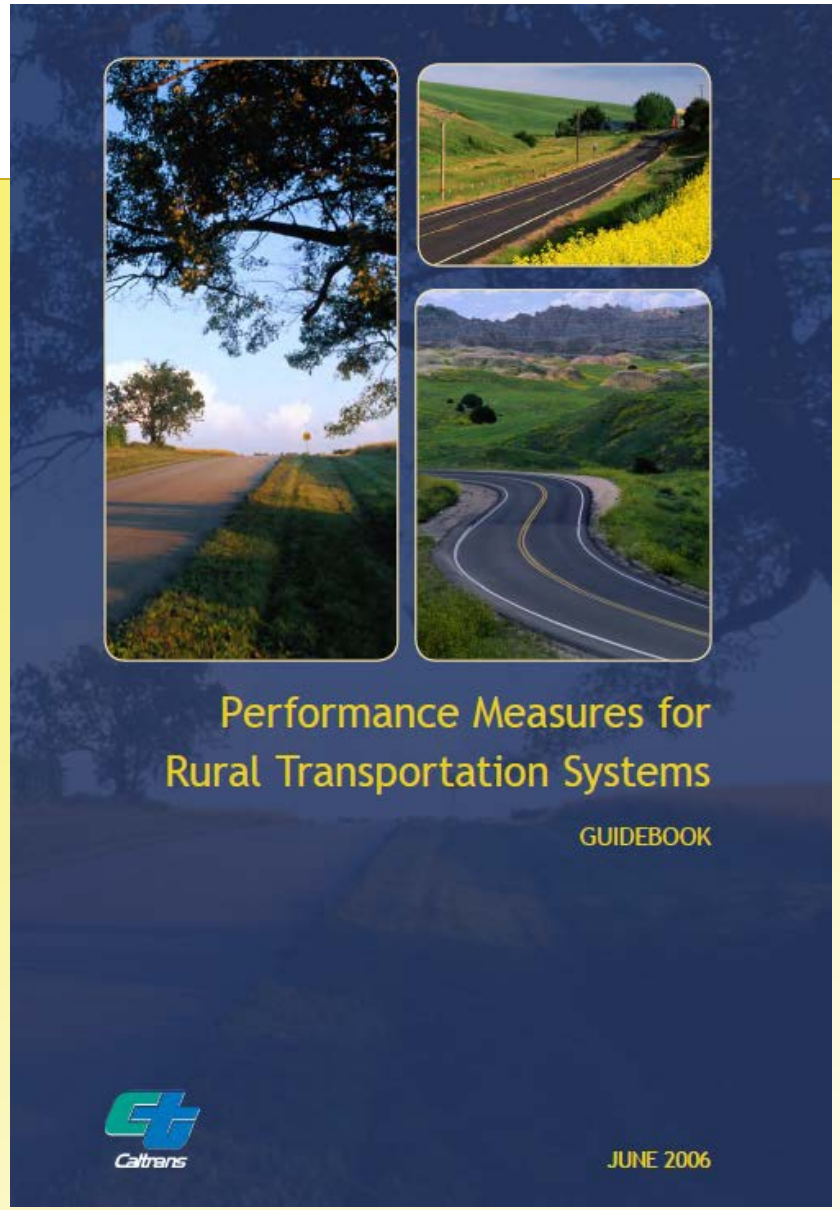
Performance Measures for
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GUIDEBOOK
Caltrans
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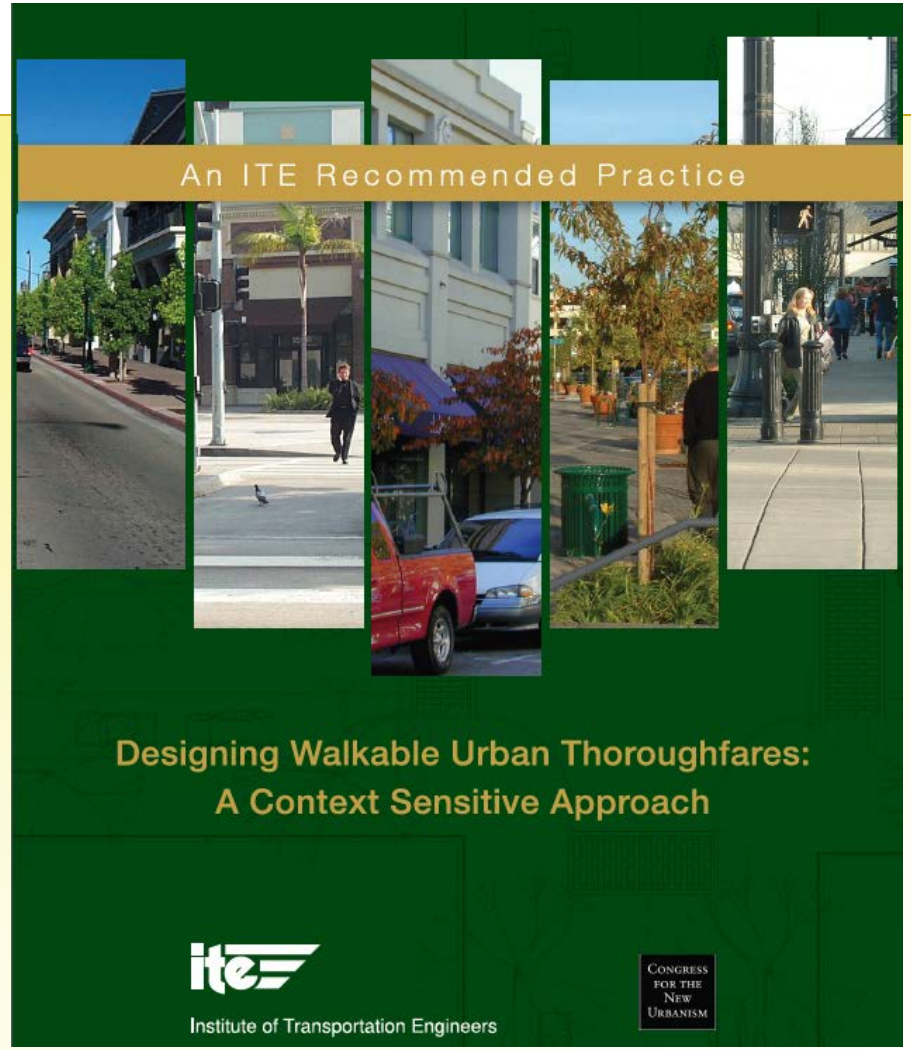
An ITE Recommended Practice
Designing Walkable Urban Thoroughfares:
A Context Sensitive Approach
ite
Institute of Transportation Engineers
Congress for the New Urbanism

Resources

Transportation Concept Report
State Route 12 (West)
District 4

Start of State Route 12 (West) from State Route 121 south of the City of Sonoma

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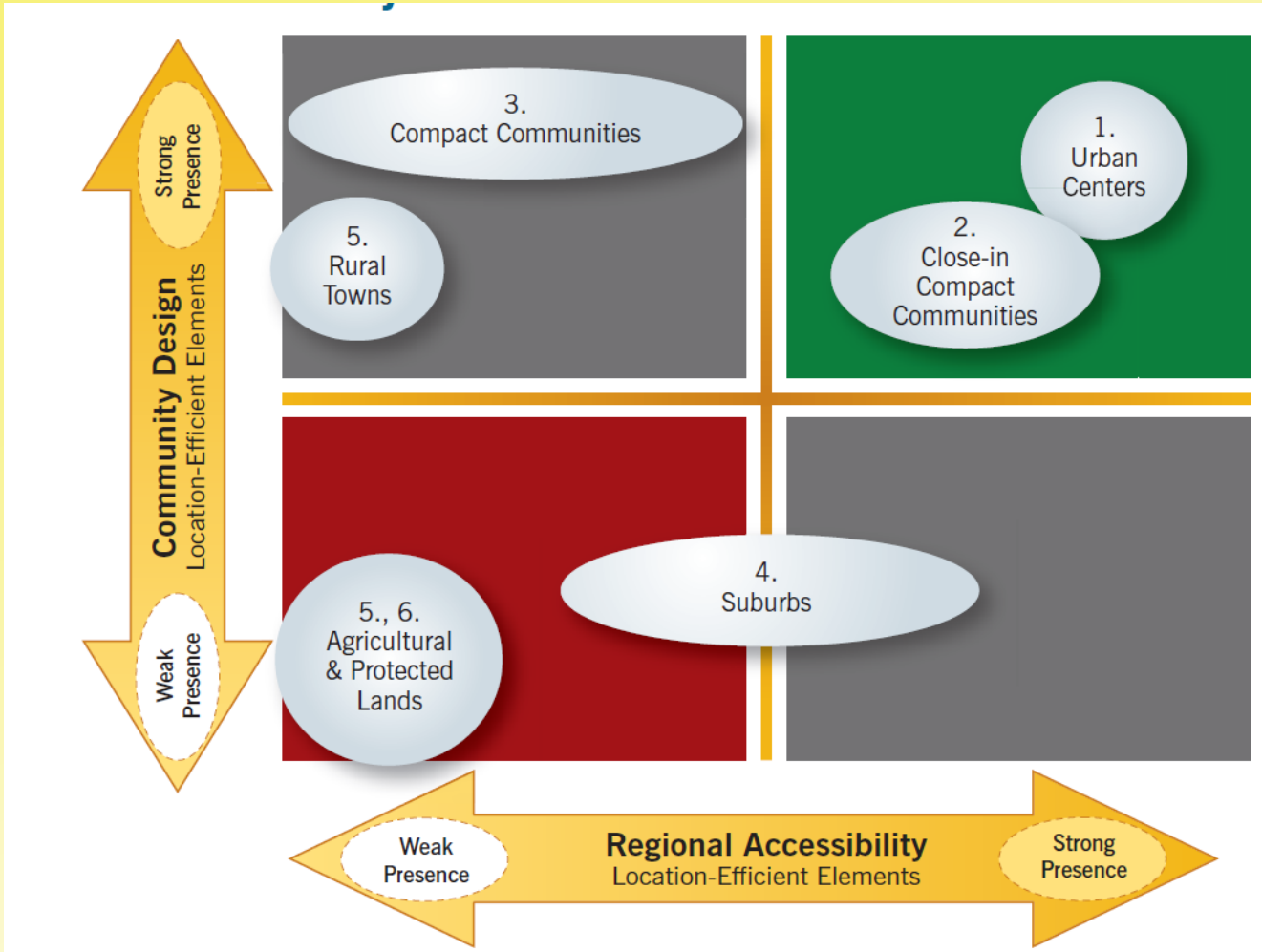
Place Types and Location Efficiency



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