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INTRODUCTION TO URBAN PLANNING

Objectives for this evening

- What is planning?
- Why do we do it?
- What are the main tools that planners use?

What is a city?

- “a structure specially equipped to store and transmit the goods of civilization, sufficiently condensed to afford the maximum amount of facilities in a minimum space, but also capable of structural enlargement to enable it to find a place for the changing needs and the more complex forms of a growing society and its cumulative social heritage.”
  - Lewis Mumford

A city is....

- Efficient
- Flexible
- Responsive
- Sensitive

What is urban planning?

- Planning is the ‘application of foresight to action’
- As your communities develop (or decline), planning can help you achieve the intended results

Why we plan

- To further the welfare of people and their communities by creating environments that are:
  - Safe,
  - Convenient,
  - Equitable,
  - Healthful,
  - Efficient, and
  - Attractive

Who plans?

- Roles of a planner:
  - Visionary
  - Analyst
  - Manager
  - Adviser
  - Liaison
  - Advocate
  - Information resource
  - Educator

Process of Planning

1. Identify problems
2. Establish goals
3. Collect data
4. Analyze data
5. Identify alternatives
6. Analyze alternatives
7. Select alternatives
8. Implement plan
9. Get feedback (tweak)
10. Start over.

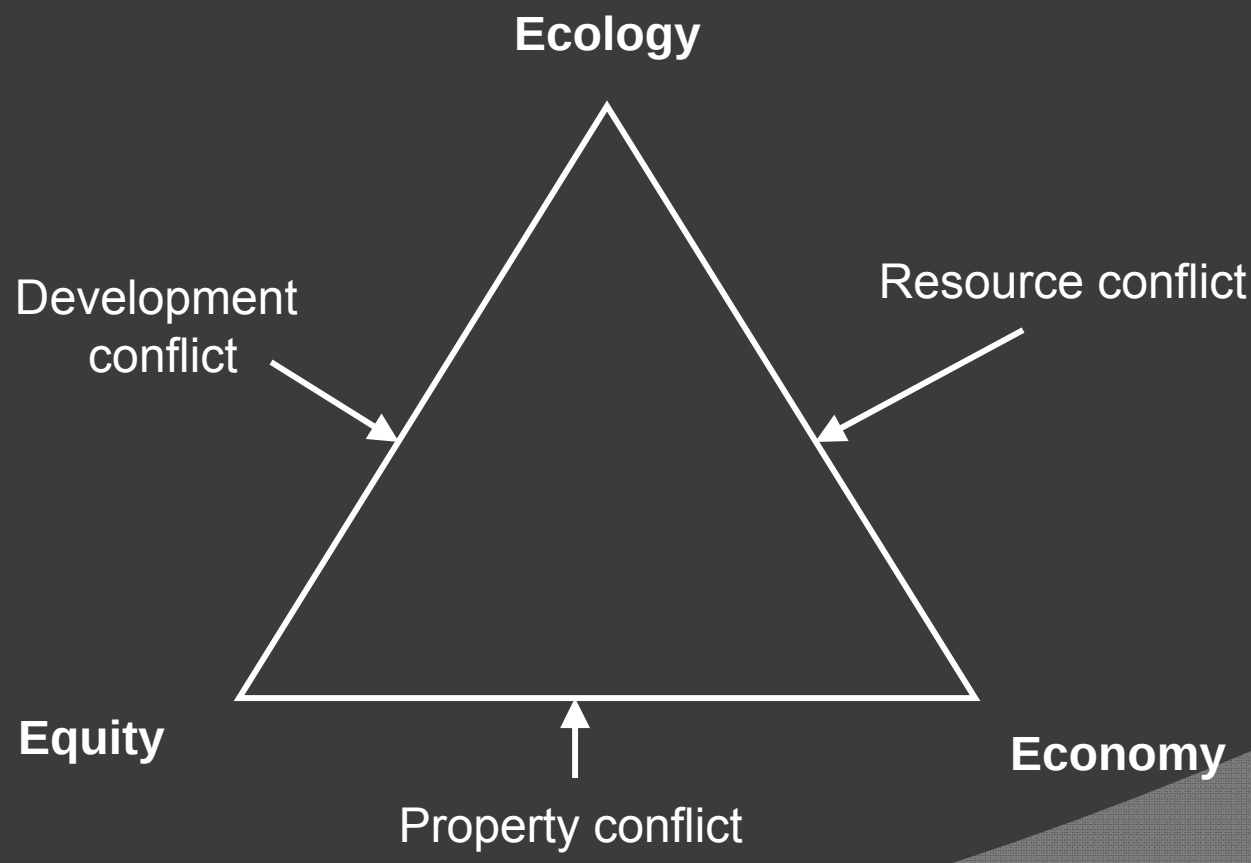
Core purposes of a plan

- Offer a consensus-based community vision for future development that inspires action
- Provide facts, goals, and policies for translating the vision into a physical development pattern
- Inject long-range considerations into short-range actions that promote a future development pattern that is livable, socially just, economically viable, and environmentally compatible
- Represent a “big picture” of the community that is related to the trends and regional interests in which the local government is located

Land Use Values

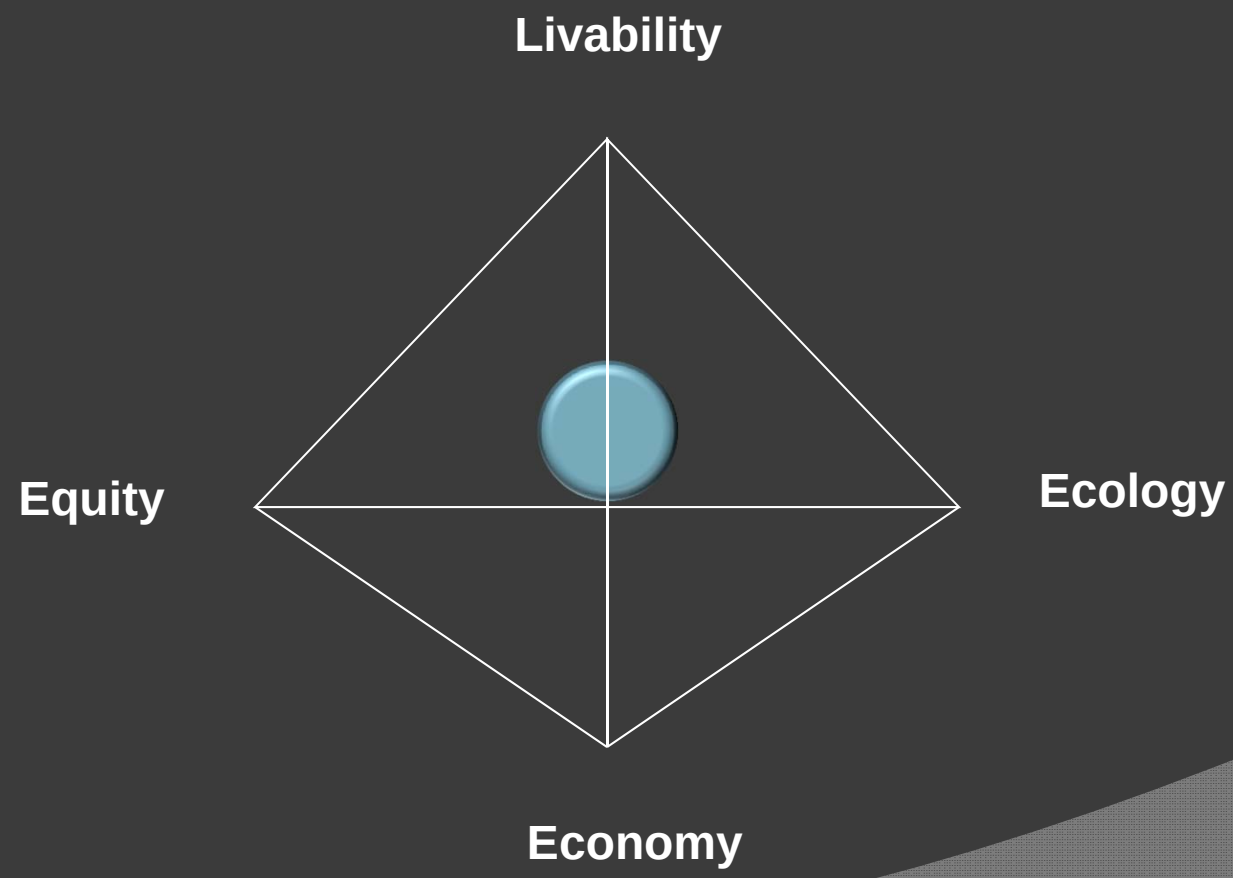
- Economic Development Values
- Environmental Protection Values
- Equity Values
- Livability Values

Balancing goals of sustainable development



Adapted from Godschalk et al.

“Sustainability Prism”



Adapted from Godschalk et al.

Preparing a Plan

- Developing a “planning fact base” is essential foundation for making planning decisions
- Decision-making is a collective, collaborative process
- Decisions are most often made from among several alternative scenarios
- Planners can facilitate decision-making through:
  - Presenting alternative growth scenarios
  - Visualization and communication techniques

Types of Growth

- In what ways can communities grow?
- What are some different measures?
- Do all types of growth lead to physical growth?

- How do planners guide growth?

Planning Fact Base

a weak fact base is a major obstacle to formulating high quality plans

Should describe and analyze:

- Present and future population and economy
- Existing land use, future land use needs and current land supply
- Existing and future needs for community facilities and infrastructure that sever the communities population and economy and serve to influence development decisions in the real estate market
- State of the natural environment, which represents valuable and vulnerable resources, and physical constraints to land use and development

Activity

- For your community, what changes would you like to see in the future?
- Write down on a slip of paper your top three priorities

Tools of Land Use Planning

- Public Capital Investment
- Public control of the use of privately-owned land
  - Subdivision regulation
  - Zoning

Capital Investment

- Provides basic infrastructure for the health, safety, and welfare of residents
- Deciding where and how to construct infrastructure that facilitates or discourages development

Capital Investment

- Accessibility determines land value, and land value determines the intensity of development
  - Presence of roads
  - Quality of roads
  - Provision of alternative forms of transportation (mass transit)
- Water and sewer permit certain uses and discourage others
- Facilities like schools or parks attract both developers and residents
- Facilities like fire, police, clinics, and hospitals are related to the health and safety of residents

Image from the *Practice of Local Government Planning*.

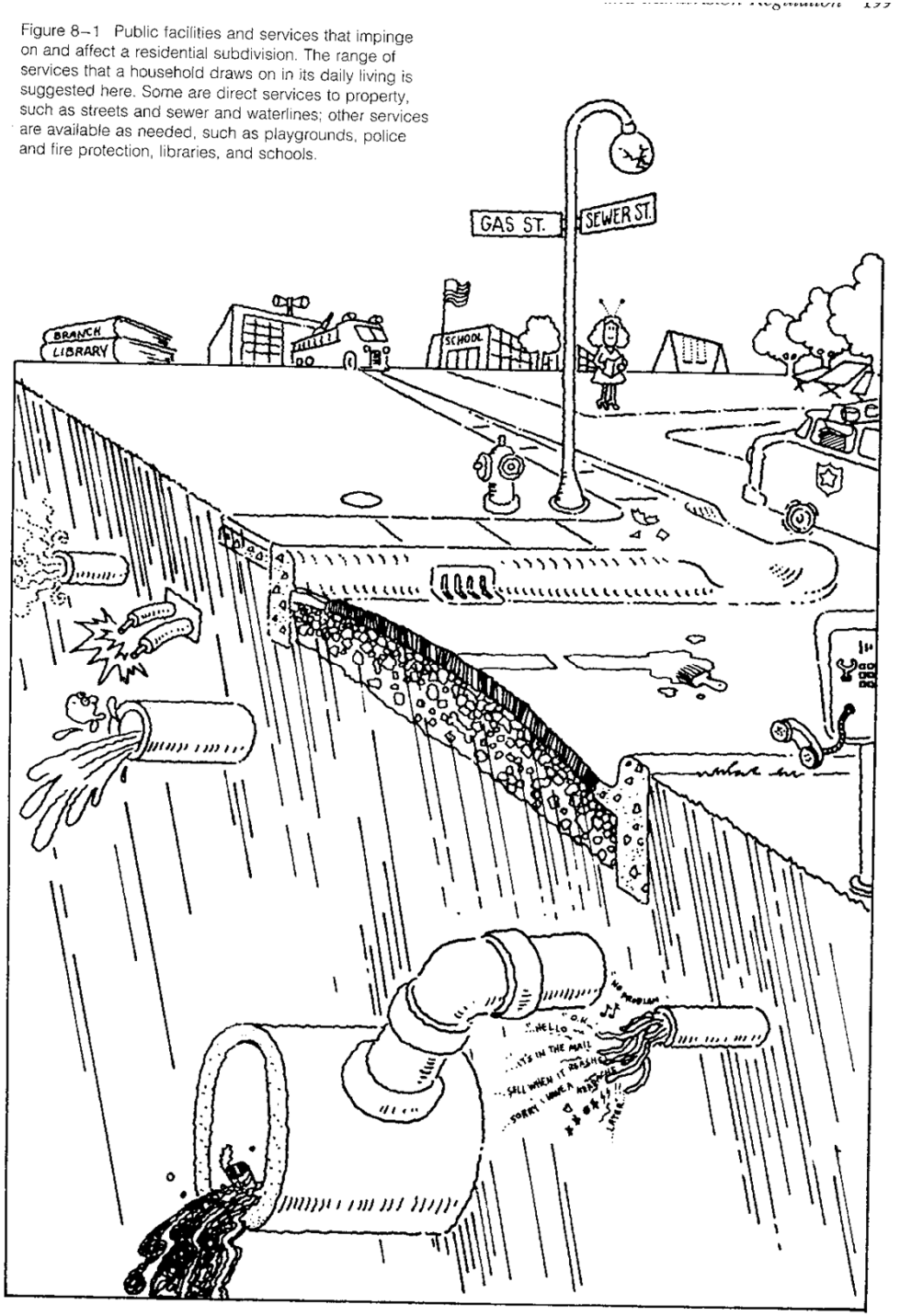


Figure 8–1 Public facilities and services that impinge on and affect a residential subdivision. The range of services that a household draws on in its daily living is suggested here. Some are direct services to property, such as streets and sewer and waterlines; other services are available as needed, such as playgrounds, police and fire protection, libraries, and schools.

Purposes of subdivision regulation

- To determine who will pay for capital improvements needed to serve new growth (may be city, may be developer)
- To help ensure the creation and preservation of adequate land records (for land titles and tax purposes)
- To ensure that subdivisions are properly designed and maintained

A typical subdivision regulation includes:

- General jurisdictional statement
- Design principles and standards
- Improvements, dedications and reservations
- Platting process
- Administration and enforcement

Plat Review

- It must at a minimum show:
  - Topography
  - Streets
  - Water & sewer
  - Property lines
  - Setbacks/sideyards
  - Reservations (requires abstention from subdividing/developing) and dedications (donation)
  - Street signs/lights/sidewalks
  - Fire hydrants

Zoning

- About location—where should development occur, and what kinds of development should go where

- Site layout requirements
- Requirements for structure characteristics
- Uses to which structures may be put
- Procedural matters

Site Layout Requirements

- minimum lot size
- setbacks
- % of lot covered
- Parking requirements

Structure Characteristics

- Requirements for:
  - Maximum heights
  - Maximum number of stories
  - Floor-to-Area Ratio (FAR)

Allowable Uses

- Uses to which the structure may be put:
  - Single-Family residential
  - Multi-family residential
  - Commercial use
    - Office
    - Retail
  - Manufacturing uses
    - Light
    - Heavy

- Typical Zoning designations are:
  - AR-AgRes
  - R-1- SF Res
  - R-2 – MF Res
  - R-3 – MF Res (more dense)
  - MH - Manufactured Housing
  - PO – Prof Office
  - NC – Neighborhood Commercial
  - HC – Highway Commercial
  - PS – Planned Shopping
  - AU – Adult Uses
  - LM – Light Manufacturing

Criticisms of Zoning

- It's crude. Zoning can't make anything happen, and it may lead to sub-optimal results.
  - **Saturation**. If every lot were developed to the full intensity that is permitted, the congestion, traffic, and noise may be too much. In other words, planners zone knowing/expecting that an area will not develop to its full potential.
- Zoning may lower the quality of urban design by limiting the freedom of designers
- It may produce a sterile environment through an excessive separation of uses.

Making zoning flexible

- Incentive zoning
- Transfer of development rights
- Inclusionary zoning
- Planned unit developments
- Cluster zoning
- Performance zoning
- Development Agreements
- Exactions

a. Aerial photograph of Carpenter Crossroads: Existing conditions, 2002.

b. Conventional subdivision sketch plan.

c. Conventional subdivision photo simulation.

d. Conservation subdivision photo simulation.

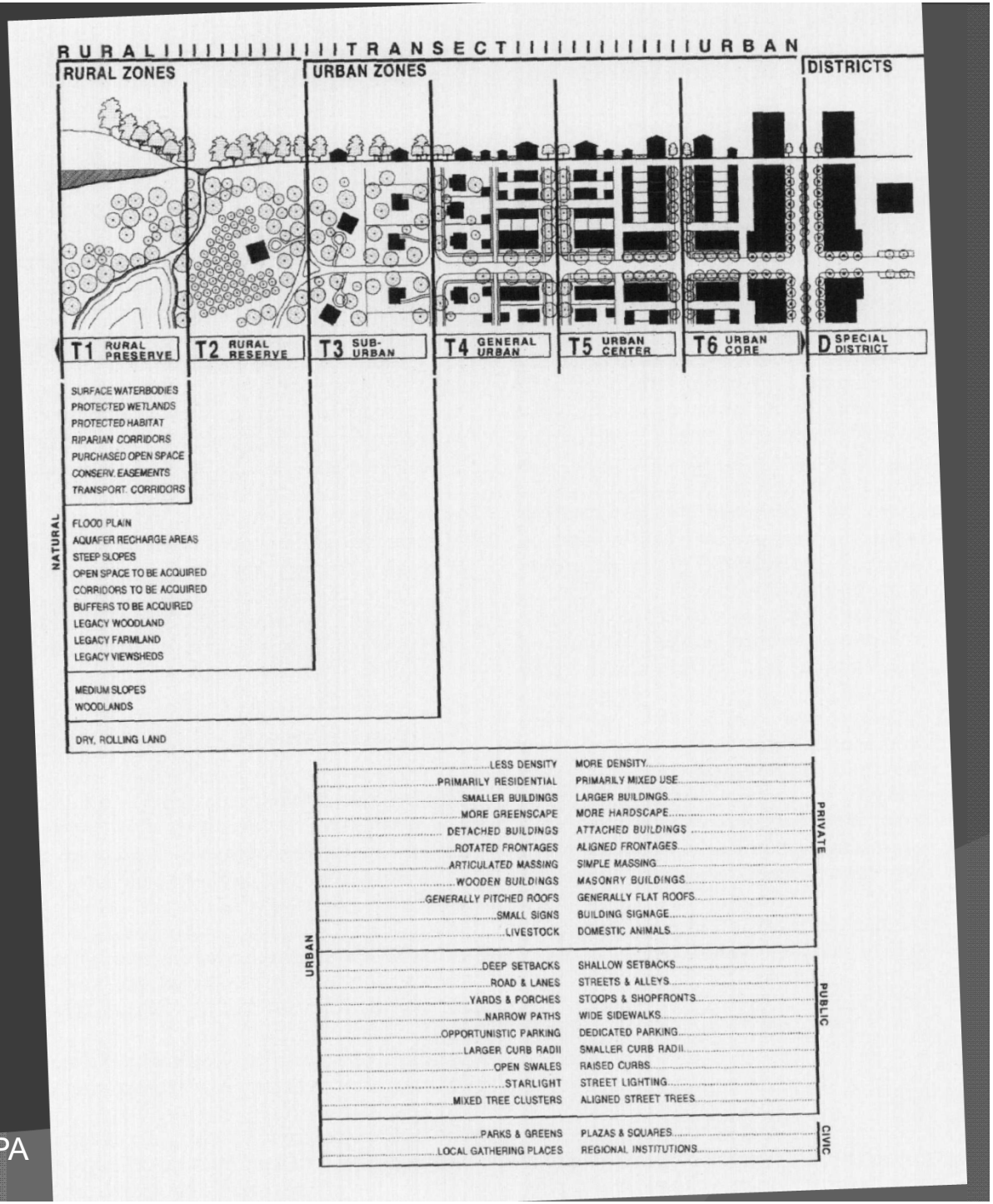
SB Fig. 4-2 Cary, North Carolina, visualization example. *Source: Ramage and Holmes 2004, Town of Cary Planning Department and North Carolina State University College of Design.*

Alternative to traditional zoning

- Form-Based Codes or Transect Planning

Transect Planning

- Ecozones:
  - Rural Preserve
  - Rural Reserve
  - Suburban
  - General Urban
  - Urban Center
  - Urban Core
  - Special District



From Talen and Duany, 2002, JAPA

TABLE 1. Main characteristics of ecozones.

Ecozone	Main characteristics
Rural Preserve T1	Open space legally protected from development in perpetuity. Includes surface water bodies, protected wetlands and habitats, public open space, and conservation easements.
Rural Reserve T2	Open space not yet protected from development but should be. Includes open space identified by public acquisition and areas identified as transfer of development rights (TDR) sending areas. May include flood plains, steep slopes, and aquifer recharge areas.
Sub-Urban T3	The most naturalistic, least dense, most residential habitat of a community. Buildings consist of single-family, detached houses. Office and retail buildings are permitted on a restricted basis. Buildings are a maximum of two stories. Open space is rural in character. Highways and rural roads are prohibited.
General Urban T4	The generalized, but primarily residential, habitat of a community. Buildings consist of single-family, detached houses and rowhouses on small and medium-sized lots. Limited office buildings and lodging are permitted. Retail is confined to designated lots, typically at corners. Buildings are a maximum of three stories. Open space consists of greens and squares.
Urban Center T5	The denser, fully mixed-use habitat of a community. Buildings consist of rowhouses, flexhouses, apartment houses, and offices above shops. Office and retail buildings and lodging are permitted. Buildings are a maximum of five stories. Open space consists of squares and plazas.
Urban Core T6	The densest residential, business, cultural, and entertainment concentration of a region. Buildings consist of rowhouses, apartment houses, office buildings, and department stores. Buildings are disposed on a wide range of lot sizes. Surface parking lots are not permitted on frontages. Open space consists of squares and plazas.

Source: Adapted from Duany Plater-Zyberk & Company (2000)

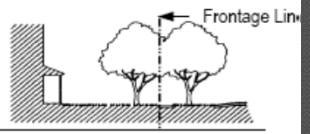
- Implemented with SmartCode, including standards for each ecozone:
  - Building disposition (lot size, frontage and setback requirements)
  - Building configuration (frontage type and building height)
  - Building function (uses)
  - Standards for parking, architecture, landscape and signage

Section 4. Urban Standards

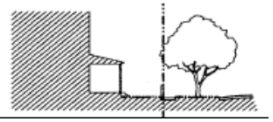
4.40 - Frontage Types

The street facing facades of each proposed building shall be designed as one of the building frontage types allowed by Section 4.10 (Urban Standards Table). Allowed frontage types shall be designed in compliance with the following standards.

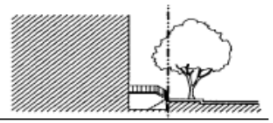
Common Yard: a frontage wherein the façade is set back substantially from the frontage line. The front yard created remains unfenced and is visually continuous in landscaping with adjacent yards, supporting a common rural landscape. Common Yards are suitable along higher speed thoroughfares, as the deep setback provides a buffer.



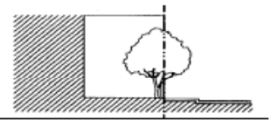
Porch and Fence: a frontage wherein the façade is set back from the frontage line with an attached porch encroaching. The porch should be within a conversational distance of the sidewalk. A fence at the frontage line maintains the demarcation of the yard. Porches shall be no less than 8 feet wide.



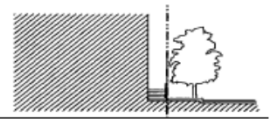
Terrace or Light Court: a frontage wherein the façade is set back from the frontage line by an elevated garden or terrace, or a fenced, sunken light court. This type buffers residential use from urban sidewalks, removing the private yard from public encroachment. The terrace is suitable for outdoor dining.



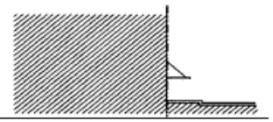
Forecourt: a frontage wherein a portion of the façade is close to the frontage line while a substantial portion of it is set back. The forecourt created is suitable for gardens and drop-offs. This type should be allocated sparingly in conjunction with other frontage types. Trees within the forecourts may overhand the sidewalks.



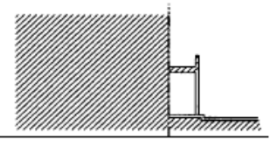
Stoop: a frontage wherein the façade is aligned close to the frontage line with the lower story elevated from the sidewalk sufficient to secure privacy for the windows. The access is usually an exterior stair and landing. This type is recommended for ground-floor residential uses.



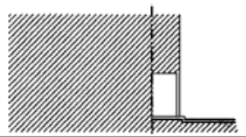
Shopfront and Awning: a frontage wherein the façade is aligned close to the frontage line with the building entrance at sidewalk grade. This type is conventional for retail use with a substantial glazing on the sidewalk level, and an awning placed so as to overlap the sidewalk to the maximum possible.



Gallery: a frontage wherein the façade is aligned close to the frontage line with an attached cantilevered shed or a lightweight colonnade overlapping the sidewalk. This type is appropriate for retail use. The Gallery shall be no less than 10 feet wide and overlap the whole width of the sidewalk to within 2 feet of the curb. The Gallery shall be no less than 12 feet clear in height.

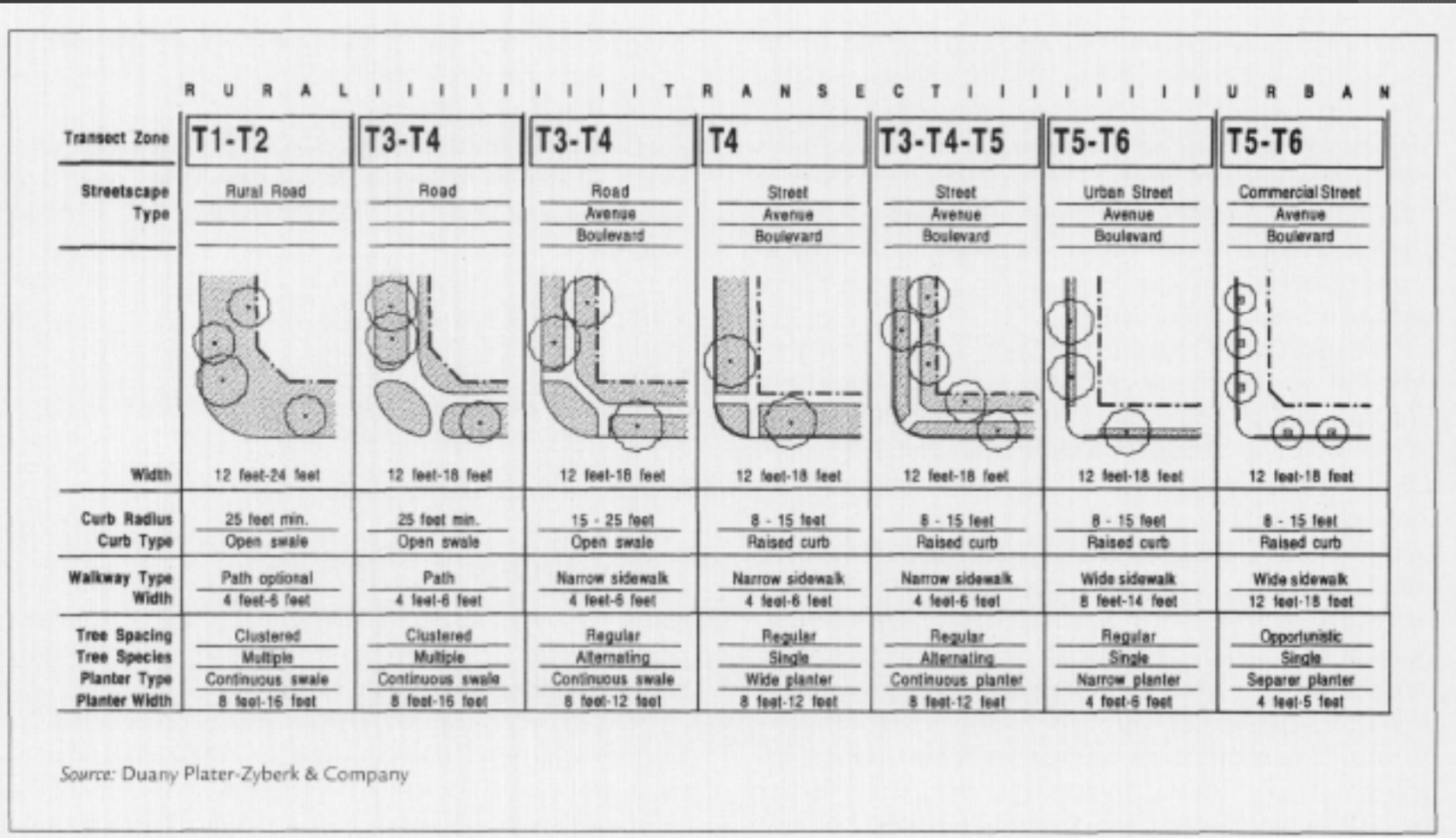


Arcade: a frontage wherein the façade is above a colonnade that overlaps the sidewalk, while the sidewalk level remains at the frontage line. This type is appropriate for retail use. The arcade shall be no less than 12 feet wide and overlap the whole width of the sidewalk to within 2 feet of the curb. The Arcade shall be no less than 12 feet clear in height.



From City of Petaluma, CA

Transect Planning



R U R A L I I I I I I I I I I I I T R A N S E C T I I I I I I I I I I U R B A N

Transect Zone	T1-T2	T3-T4	T3-T4	T4	T3-T4-T5	T5-T6	T5-T6
Streetscape Type	Rural Road	Road	Road Avenue Boulevard	Street Avenue Boulevard	Street Avenue Boulevard	Urban Street Avenue Boulevard	Commercial Street Avenue Boulevard
Width	12 feet-24 feet	12 feet-18 feet	12 feet-18 feet	12 feet-18 feet	12 feet-18 feet	12 feet-18 feet	12 feet-18 feet
Curb Radius Curb Type	25 feet min. Open swale	25 feet min. Open swale	15 - 25 feet Open swale	8 - 15 feet Raised curb	8 - 15 feet Raised curb	8 - 15 feet Raised curb	8 - 15 feet Raised curb
Walkway Type Width	Path optional 4 feet-6 feet	Path 4 feet-6 feet	Narrow sidewalk 4 feet-6 feet	Narrow sidewalk 4 feet-6 feet	Narrow sidewalk 4 feet-6 feet	Wide sidewalk 8 feet-14 feet	Wide sidewalk 12 feet-18 feet
Tree Spacing Tree Species Planter Type Planter Width	Clustered Multiple Continuous swale 8 feet-16 feet	Clustered Multiple Continuous swale 8 feet-16 feet	Regular Alternating Continuous swale 8 feet-12 feet	Regular Single Wide planter 8 feet-12 feet	Regular Alternating Continuous planter 8 feet-12 feet	Regular Single Narrow planter 4 feet-6 feet	Opportunistic Single Separer planter 4 feet-5 feet

Source: Duany Plater-Zyberk & Company

FIGURE 2. Streetscapes by transect zone.

Comparison of Euclidean Zoning vs. Form-Based Codes

Criticisms of Zoning	Form-Based Codes
Separates Land Uses	Allows for mixing of uses
Leap Frog Development	Permits and encourages compact, contiguous development
Commercial Strip Development	Enables vertical development
Low-Density Development	Allows for increased development where appropriate
Poor Accessibility	Encourages compact, walkable development
Lack of functional open space	Enables communities to mandate civic-oriented places like parks and plazas

Adapted from Burdette, J. Virginia Polytechnic Institute.

Comparison of Euclidean Zoning vs. Form-Based Codes, cont.

Criticisms of Zoning	Form-Based Codes
Incomprehensible Ordinances	Uses simple, graphic-based guidelines with minimal text
Inflexible Uses	Regulations permit use to change or adjust as needed over time without regulatory approval
Promotes Exclusion	Allows uses that should be inclusive, but tends to drive up costs, excluding some populations
Unpredictable Development	Form is predictable, uses are largely, but not completely predictable
Lack of stakeholder input	Charrette and visioning process can include stakeholders if implemented properly

Adapted from Burdette, J. Virginia Polytechnic Institute.