

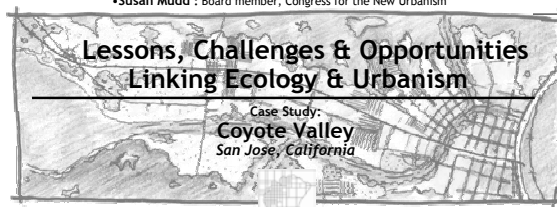
“Greening the Code”

5th Annual New Partners for Smart Growth

January 27-28, 2006

Speakers:

- **Laurel Prevetti**: Deputy Director of Planning, San Jose
- **Ken Kay**: Principal at KenKay Associates
- **Susan Mudd**: Board member, Congress for the New Urbanism



Prepared by: KenKay Associates & Laurel Prevetti

Places, Identity & Environment



What is Greening the Code?

The natural and built environments must be planned and integrated as a sustainable and seamless place for communities of people, plants and wildlife.

It must have a well defined public realm integrating natural and human systems together, to create the ecology of sustainability into codes, policies and patterns of smart growth.

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Objectives of Greening the Code

- Advance the benefits of smart growth
- Create a framework to integrate ecology and human patterns of development
- Conserve, restore and enhance natural systems, species and habitats
- Protect and steward watershed resources, water quality and agricultural lands
- Create a multi-functional public realm i.e.: flood protection and recreation open space
- Integrate natural systems into compact development

Prepared by: KenKay Associates & Laurel Prevetti





“Greening the Code” Planning Issues

STAKEHOLDER, COMMUNITY & GOVERNMENTAL PROCESS

- Vision and Outcomes
- Land Owners
- Open Community Decision- Making Process
- Multi-jurisdictional Planning and Coordination

ENVIRONMENTAL PLANNING & PLACE MAKING

- Environmental Framework for Development and Sustainability
- Transit, Urbanism and Place - Making
- Green Infrastructure
- The Vision and Sustainability
- Blue Infrastructure
- Mobility

ECONOMICS AND FINANCE

- Paying for Green
- Attracting Jobs
- Strategies to Build Over Time

SOCIAL EQUITY

- Fair access to livelihood, education and resources
- Full participation in political and cultural life
- Self determination in meeting human needs

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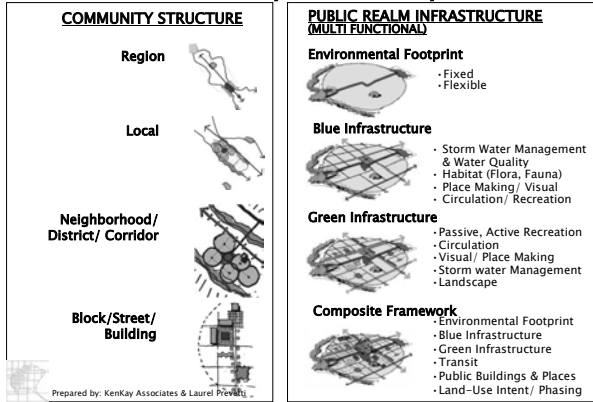
Approaches to Greening the Code

- Setting environmental, economic and social goals, policies, standards and plans
- Establishing relationships between fixed ecological systems and flexible market needs which change over time
- Integrating urban design, land use and ecological infrastructure with political, market, community and governmental consensus building

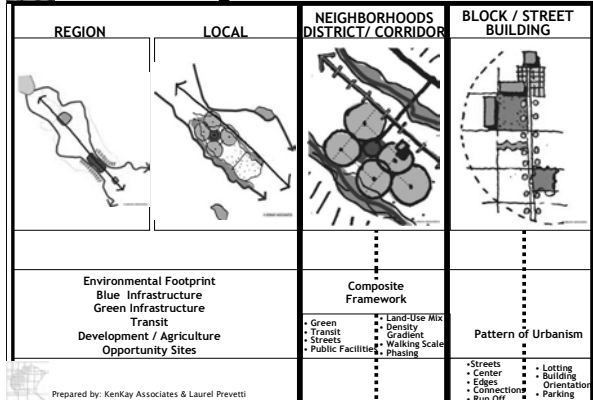
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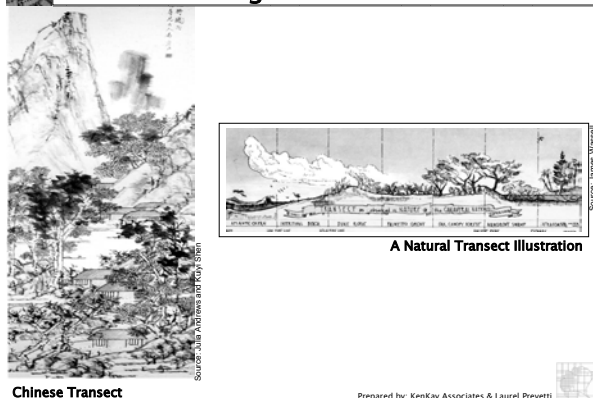
DNA of a Healthy Community



Urban Design Process



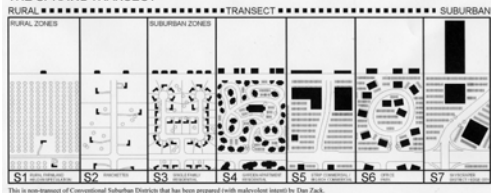
Understanding the Environment





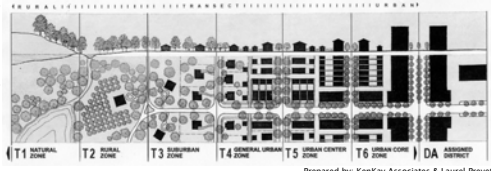
Defining the Environment

THE SPRAWL TRANSECT



This is a transect of Connecticut Suburban Districts that has been prepared (with modifications) by Dan Pack.

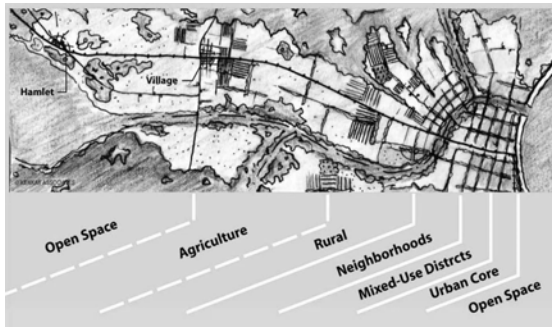
Source: Andres Duany & Elizabeth Plater-Zyberk



Prepared by: KenKay Associates & Laurel Prevetti



Transect- Integrating Human & Natural Systems

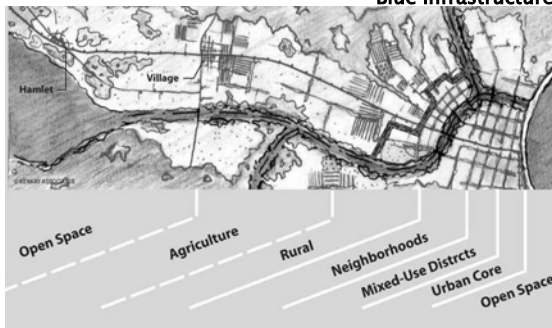


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Transect- Integrating Human & Natural Systems

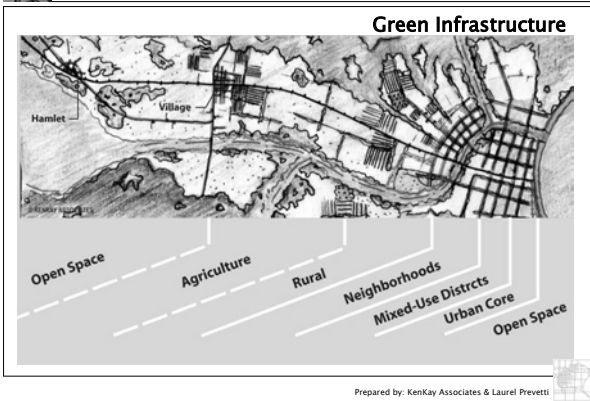
Blue Infrastructure



Prepared by: KenKay Associates & Laurel Prevetti

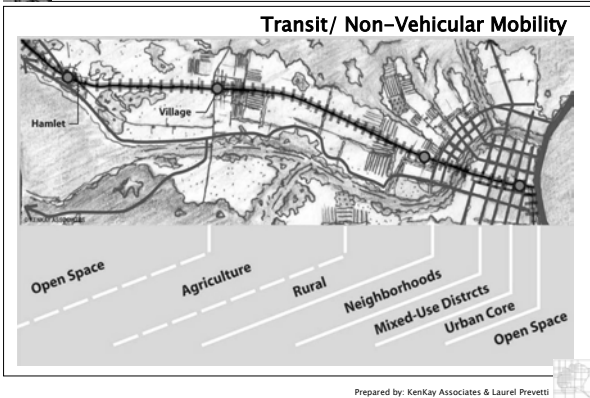


Transect– Integrating Human & Natural Systems



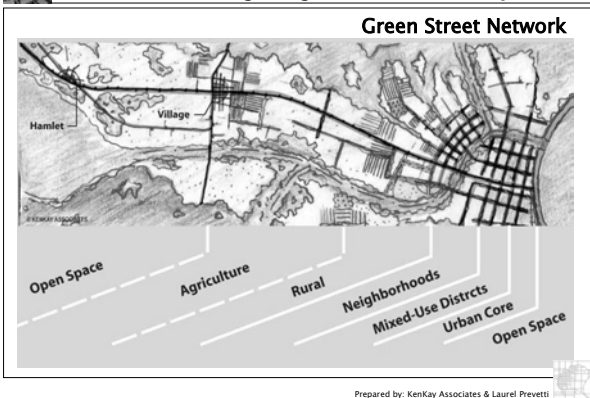


Transect– Integrating Human & Natural Systems





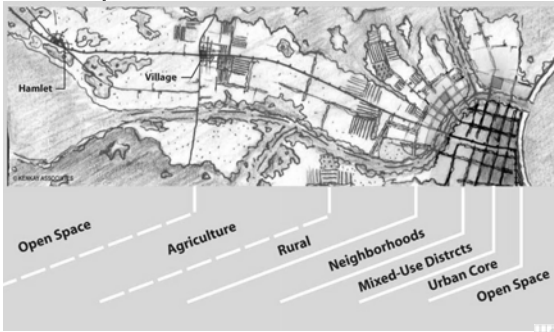
Transect– Integrating Human & Natural Systems





Transect– Hierarchy of Human & Natural Systems

Hierarchy of Human Communities– Mixed Use Districts

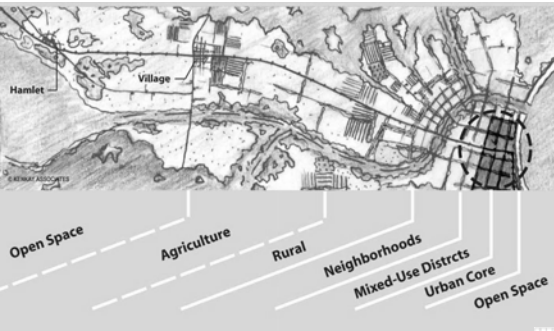


Prepared by: KenKay Associates & Laurel Prevetti



Transect– Integrating Human & Natural Systems

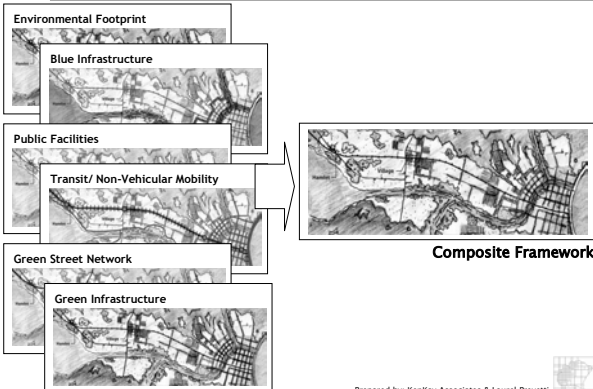
Urban Core



Prepared by: KenKay Associates & Laurel Prevetti



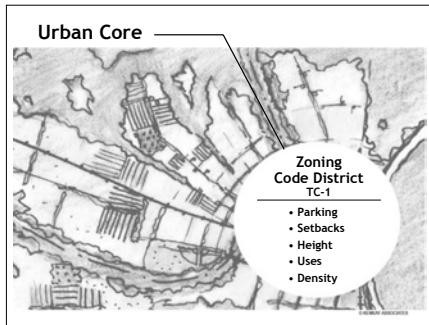
Composite Framework Green Systems



Prepared by: KenKay Associates & Laurel Prevetti



Coding Process: Conventional Codes



Subdivision Ordinance Standards

- Lots
- Streets
- Parks
- Storm Water
- Water
- Sewer

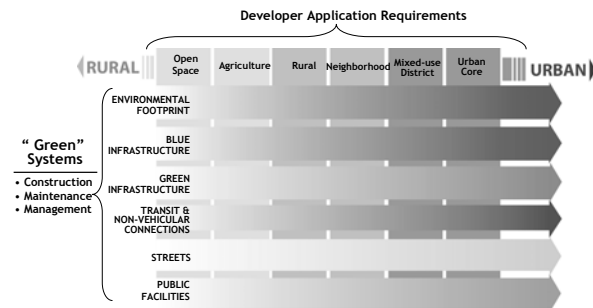
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Code End-User Needs

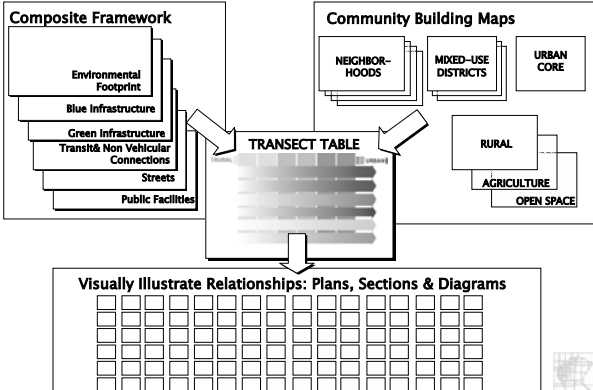
Transect Community Structure



Prepared by: KenKay Associates & Laurel Prevetti



Coding Example: Code Format





Regional Context



Prepared by: KenKay Associates & Laurel Prevetti





Coyote Valley



South West View of Coyote Valley

Prepared by: KenKay Associates & Laurel Prevetti





Coyote Valley



South West View of Coyote Valley

Prepared by: KenKay Associates & Laurel Prevetti





Coyote Valley Vision

CITY COUNCIL'S VISION AND EXPECTED OUTCOMES:

- New, Smart Growth, Pedestrian and Transit- Oriented Community
- Mixed-Use, Urban High Density
- Pay It's Own Way
- Environmentally sustainable and self - financing
- 50K Jobs, 25K Residences with Balanced Job and Housing Growth
- 25 Years Build-Out

COMMUNITY BUILDING VISION FOR A NEW COYOTE COMMUNITY

The natural and built environments must be planned and integrated as a sustainable and seamless place for communities of people, plants and wildlife.

A vibrant and sustainable built environment must be diverse in use and population, scaled for the pedestrian, and be capable of providing alternatives to the automobile with transit, bicycles and walking.

It must have a well defined public realm supported by built and unbuilt environments reflecting the natural ecology and culture of the region.

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Coyote Valley History



Agriculture



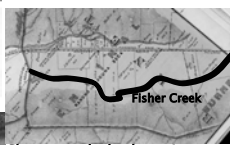
Grazing



Flooding



Ohlone Indians



Fisher Creek



Changes to the land overtime
(1876 Fisher Creek)

Prepared by: KenKay Associates & Laurel Prevetti





Coyote Valley Today



Coyote Creek



Agriculture



Coyote Hamlet



Spreckels Hillock



Laguna Seca (Dry Lake)

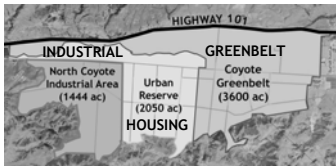


IBM Campus

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Coyote Valley Land Use



Land uses 1983 - 2004

Smart Growth

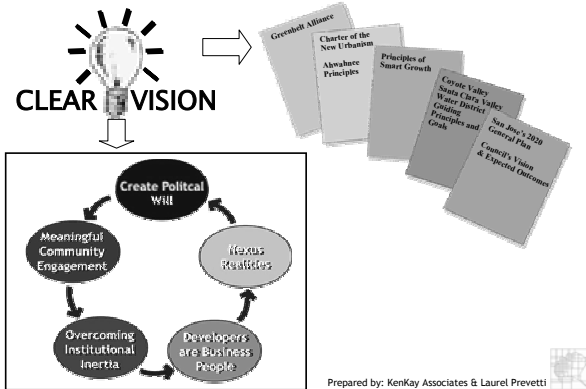
- Mixed and Integrated Land-Use
- Walkable/ Transit Friendly
- Preserve Scenic Character
- Environmental Stewardship
- Place Making



Land uses 2004 - Present

Prepared by: KenKay Associates & Laurel Prevetti

Coyote Valley Integrated Planning Process



Prepared by: KenKay Associates & Laurel Prevetti

Create Political Will

- Build coalitions around Quality of Life Goal
 - Community leaders/residents
 - Business/chamber of commerce
 - Non-profit sector

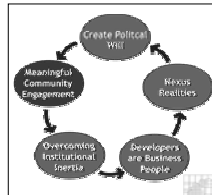


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Meaningful Community Engagement



- Involve the community
- Listen for values
- Help define high quality of life
 - Visual preference surveys
 - Slide shows/voting exercises

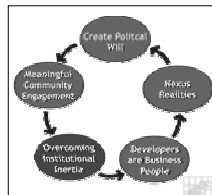


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Overcoming Institutional Inertia



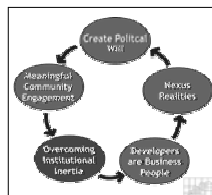
- It is ok to start small
 - Focus on key geography (e.g., downtown, business district street, etc.)
 - Focus on land use type (e.g., housing or commercial)
 - Focus on environmental issue (e.g., sensitive species, riparian, etc.)
- Use regulation to be visionary



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Institutional Realities

- Bureaucracies are slow to change
- Staff resources and training are essential
- Consider performance based measures (sustainability indicators) for budgeting and staff evaluation

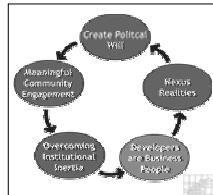


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Developers are Business People

- Appeal to the profit motive
- Sell lifestyle
- Recognize larger institutional barriers:
 - Insurance
 - Lending
- Consider Incentives:
 - Faster permits
 - Reduced taxes
 - Multi-purpose lands

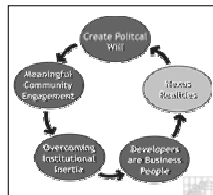


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Nexus Realities

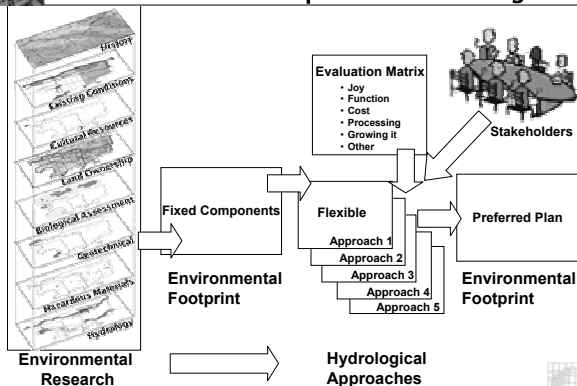
- Understand regulatory hierarchy
- Use Comprehensive/General Plan as policy foundation for “green” initiatives
- Modify zoning codes
- Modify other codes
- Modify internal procedures



Prepared by: KenKay Associates & Laurel Prevetti



Environmental Footprint: Process Diagram



Prepared by: KenKay Associates & Laurel Prevetti



Outreach-Review/ Approval Agencies

Regulatory Agencies

Regional Water Quality Control District
California Environmental Protection Agency
Army Corps of Engineers
Fish and Wildlife Services
Department of Safety and Dams
California Department of Fish and Game
National Marine Fisheries
USDA Natural Resource Conservation Service

Santa Clara County

County Parks & Recreation
Santa Clara Valley Water District
County Roads and Airports
County Planning
County Floodplain Administrator
Department of Health Services
Board of Supervisors
County Communication

City of San Jose

Planning, Building & Code Enforcement
Flood Plain Administrator
Public Works
Parks & Recreation
Department of Transportation

Housing
Economic Development
Fire
Police
Environmental Services
Historic & Landmarks Commission
Waste Water Pollution Control

Transportation

VTA
Caltrans
MTC
Union Pacific Railroad
Bay Area Transportation & Land Use
Walk San Jose
Silicon Valley Bicycle Coalition
Peninsula Bicycle & Pedestrian Coalition
Surface Transportation Policy Project

Educational Stakeholders

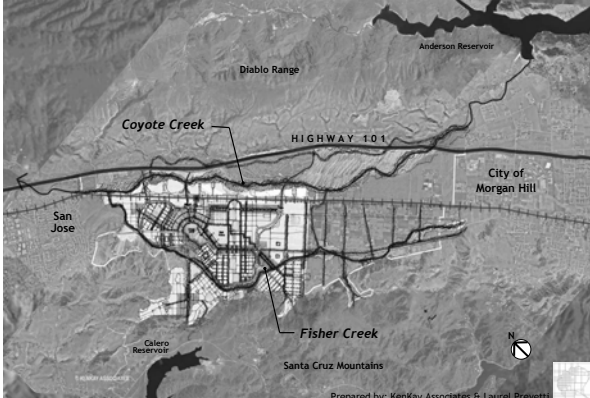
Center for Education Planning
Cavilan College
Morgan Hill Unified School District
Oak Grove Elementary School District
San Jose City College
San Jose State University
San Jose Unified School District



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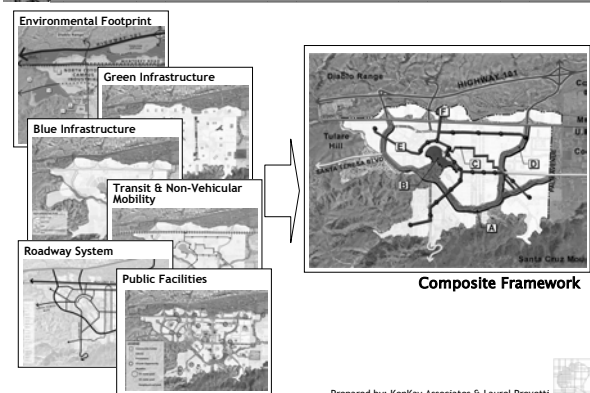
Land Use Plan/ Phasing Intent



Prepared by: KenKay Associates & Laurel Prevetti



Composite Framework Green Systems



Prepared by: KenKay Associates & Laurel Prevetti



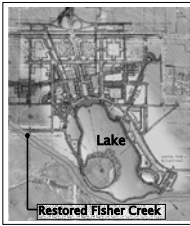
Blue Infrastructure- Coyote Lake



Lake



Urban Edge



Restored Fisher Creek



Key Concepts

- Storm water Detention
- Recreation
- Visual Amenity/ Place Making
- Circulation- Walking/ Biking
- Lake 55 Acres (Approx.)
- Park 25 Acres (Approx.)
- Lake Walk 1.6 Miles

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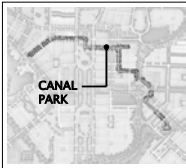
Lake Front Promenade



Blue Infrastructure- Canal Park



URBAN FORM



CANAL PARK



Key Concepts

- Linear Park
- Bio-Filtration
- Pedestrian/ Bicycle Circulation
- Storm Water Detention Quality
- 1.8 Miles

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SOFT



NATURAL



Green Infrastructure- Parks & Recreation



Community Park



Neighborhood Park



Neighborhood Park



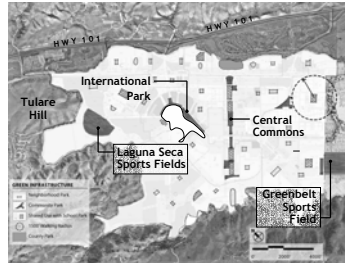
Neighborhood Park



Recreational Trails

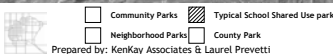


Recreational Trails



Policies and Goals

- Connected Network Linked to Extensive Trail System
- Multi-Function System
 - Circulation/Recreation
 - Visual/ Place Making
 - Stormwater, where appropriate
- Level of Service: 70,000 population @ 3.5 acres/1,000 245 ac
- Neighborhood Parks
 - Shared with Schools 110 ac
 - Not shared with Schools
- Community Parks & Facilities
 - Subtotal 117 ac
 - Subtotal 227 ac
- Facilities to be Located
 - Festival Plaza 18 ac
 - Community Center
 - Aquatic Center
 - 3 Dog Parks
- Total 245 ac
- Other community facilities to be determined (Acres preliminary)



Prepared by: KenKay Associates & Laurel Prevetti

Non-Vehicular Circulation

Policies and Goals

- Offer travel choices to support non-auto mobility
- Attractive** - offer pedestrians and bicyclists comfortable and attractive walking and biking environments by the urban design of place making
- Active** - ensure active ground flow uses facing public streets and centers of pedestrian activity that are pedestrian scaled, urban spaces filled with public life
- Accessible** - offer proximity, connectivity, and multiple routes to support shorter walking distances & combine trips
- Safe** - create an environments that protect pedestrians from traffic - reduce speeds, traffic calming crossings, increase pedestrian visibility to drivers, use parking and landscape areas as buffers from cars to increase pedestrian comfort

Trail Credits to be Determined:

- Fisher Creek Trail
- Wildlife Corridor
- Coyote Creek West Trail

Prepared by: KenKay Associates & Laurel Prevetti

Coding Process Transect

Source: Andreas Duany & Elizabeth Plater-Zyberk

Prepared by: KenKay Associates & Laurel Prevetti

Transect Coding Example

	OPEN SPACE	AGRICULTURE	RURAL	URBAN
ENVIRONMENTAL FOOTPRINT	Foothills Flora & Fauna/ Archaeological Resources	Farmland/ Orchards		
BLUE INFRASTRUCTURE	Coyote Creek Corridor Reservoirs	Fisher Creek		
GREEN INFRASTRUCTURE	Public Access Resource Management	Agricultural Support		
TRANSIT & NON-VEHICULAR CONNECTIONS	Equestrian, Bike and Hiking Trails	Equestrian, Bike and Hiking Trails		
STREETS	Pervious Streets	Pervious & Paved, No-Curb Streets		
PUBLIC FACILITIES	Interpretive, Recreational & Educational Facilities	Seasonal Agriculture Facility Riding & Educational Facilities		

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Transect Coding Example

	RURAL	AGRICULTURE	RURAL	NEIGHBORHOOD	MIXED-USE DISTRICT	URBAN
ENVIRONMENTAL FOOTPRINT			Bounds Compact Development	Fisher Creek Heritage Trees		
BLUE INFRASTRUCTURE			Coyote Creek Fisher Creek	Canal Fisher Creek Parkway Laguna Seca		
GREEN INFRASTRUCTURE			Sport Complex/ Field	Neighborhood Parks Pocket Parks		
TRANSIT & NON-VEHICULAR CONNECTIONS			Caltrain Bike & Ped. Trails	BRT Bike & Ped. Trail		
STREETS			Green Pervious & Paved No Curb Streets	Green Residential Street Parkway		
PUBLIC FACILITIES			Community Center	School Fire Station Community Center		

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Transect Coding Example

	RURAL	NEIGHBORHOOD	MIXED-USE DISTRICT	URBAN CORE	URBAN
ENVIRONMENTAL FOOTPRINT				Hillcock	
BLUE INFRASTRUCTURE			Canal Fisher Creek	Lake / Canal	
GREEN INFRASTRUCTURE			Central Commons Village Green Farmer's Market	Lake Front Promenade International Park Town Center	
TRANSIT & NON-VEHICULAR CONNECTIONS			BRT	Caltrain Station	
STREETS			Multi-Modal Green Streets w/ Transit & Bio-Swales	Multi-Modal Green Streets w/ Transit	
PUBLIC FACILITIES			Schools Affordable Housing Community Center Post Office	Highschool Community Center Town Center Library	

Prepared by: KenKay Associates & Laurel Prevetti

Green Implementation Strategies

- Conditions on development
- Capital improvement and operating budgets
- Foundation funding
- Federal or state funding
- Partnerships with private entities



It is Not Too Late Even for "Built out" Communities



- Link new development with existing neighborhoods
 - Pedestrian/bike paths
 - Street connections
 - Strategic location of park/school/retail
- Complete facility master plans for
 - Trails, bicycle routes
 - Parks

Prepared by: KenKay Associates & Laurel Prevetti





Elements for Success

- Strong codes/policies
 - Clear intent
 - Balance flexibility with predictability
- Political will to create and implement are both critical
- Broad based coalitions
- Measure results
- Promote the good stories
- Modify if there are unintended consequences

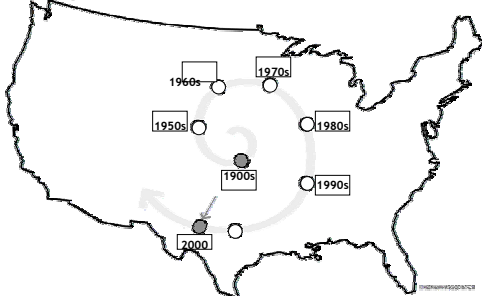
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Now is the Time

- Confluence of social equity, environmental sustainability, and economic goals
- Sensitivity to local conditions, values, and institutions

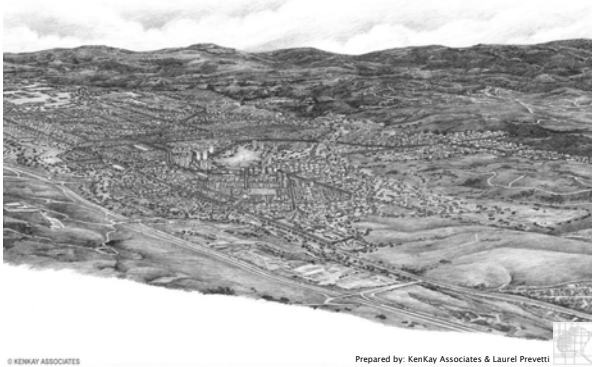


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Aerial Rendering



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Acknowledgements

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Bruce Fukui
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Eunjil Kim
Yasmine Farazian

Environmental Team

David Powers Associates
Schaaf & Wheeler
Wetlands Research Associates
Basin Research Associates
Engeo
Lowney Associates

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Advancing LEED



LEED: LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN – GREEN BUILDING RATING SYSTEM

- Consensus-based national standard for sustainable buildings
- Integrated, whole building design practices
- Recognize environmental leadership
- Raise consumer awareness
- Green competition and transform building industry

LEED FOR NEIGHBORHOOD DEVELOPMENT RATING SYSTEM: LEED-ND

- Under Development
- Consensus based national standard – CNU, USGBC & NRDC
- Integrates Smart Growth, Urbanism and green building for neighborhood design

GREENING THE CODE

- More expansive than LEED-ND
- Regional and city scale
- Systems approach to Integrating and designing ecological Infrastructure for sustainability
- Not rating system, planning and coding system

Prepared by: KenKay Associates & Laurel Prevetti