Brownfields & Environmental Restoration and LEED for Neighborhood Development:

An Inside Look at New Sustainable Communities

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California Redevelopment Association
• Advocates for city and county redevelopment agencies
• Conducts professional development programming
• Provides public information and education on redevelopment issues and activities
• 640+ public and private sector members
• www.calredevelop.org
Redevelopment in California Facts

- 398 active redevelopment agencies
- Local entities under local control, local funds for local purposes.
- $40.79 billion economic contribution (2006-07)
- 303,946 full and part-time jobs (2006-07)
- 78,750 affordable housing units - 1995 to 2009
- *California’s second largest funder of affordable housing after the federal government*

Polanco Redevelopment Act

- Available only to redevelopment project areas
- Provides immunity for parties that did not cause contamination
- Provides for cost recovery
- For more info go to Brownfields webpage at www.calredevelop.org
Events & Resources

Reduce, Recycle, Redevelop - Solutions for Building Sustainable Communities
- August 11-12, 2010, Pasadena Hilton
- Call for Presentations Deadline April 16, 2010

The Polanco Redevelopment Act: Redevelop Contaminated Properties Without Fear
- April 28, 2010, 10:30 a.m. to 12:00 p.m.
- A webinar

www.sustainableredevelopment.org

Raimi + Associates

- Matt Raimi, AICP
- Berkeley-based planning and design firm
- Core services
  - LEED-ND trainings and documentation
  - Sustainability policy
  - General Plan
  - Public health and the built environment
LEED FOR NEIGHBORHOOD DEVELOPMENTS

What is LEED?

- LEED = Leadership in Energy and Environmental Design
- Developed by the US Green Building Council
- A leading-edge system for designing, constructing, operating and certifying the world’s greenest buildings.
- 9 market specific rating systems
- Goal: TRANSFORM THE MARKET!
What is LEED-ND?

• ND = Neighborhood Developments
• A rating system that combines elements of smart growth, urbanism, and green building

Principles of Smart Growth + Charter + Sustainability = LEED-ND

Why is LEED-ND Needed?

Environmental Impacts of Location
- Land consumption
- Driving
- Air Pollution
- Climate Change
- Water use
- Energy use
- Ecological Footprint
- Public Health
LEED-ND Highlights

- National certification for sustainable land developments
- Market is both development teams and government
- Can “certify” at 3 stages: plan, entitled plan or development
- 12 Pre-Requisites that can preclude certification
- 100 Base Credits: Minimum of 40 to Certify, 50, 60, 80
- 6 Innovation Credits, 4 Regional Credits

How is LEED-ND Organized?

Where? Smart Location and Linkage
- 5 Pre-Reqs, 27 Points
- Locate in or near existing urban and built areas
- Avoid sensitive lands and bad locations

What? Neighborhood Pattern and Design
- 3 Pre-Reqs, 44 Points
- Compact, connected, & complete places

How? Green Infrastructure and Building
- 4 Pre-Reqs, 29 Points
- Project construction and maintenance
- High Performance Infrastructure
Smart Location and Linkage

- Locates in or near existing development and transit
- Avoids and restores sensitive natural areas (i.e., wetlands, critical wildlife habitat)
- Redevelops existing land, including brownfields
- Does not fragment habitat
- Minimizes impact on agricultural land

Neighborhood Pattern and Design

After determining where, identify:

- How people connect to place and to one another
- Shared public spaces
- Nearby goods and services
- Walkable streets
Green Infrastructure and Building

Use design techniques and systems to reduce environmental impacts based on:

• Site impacts
• Water
• Energy
• Materials
• Buildings
• Infrastructure

Hercules Bayfront Transit Village
Hercules, CA
Project Overview

- 40 acre waterfront site
- Redevelopment of brownfield site
- Habitat and wetland restoration
- Transformation into premiere urban waterfront neighborhood
- Participated in LEED-ND Pilot Program

Project Location
Hercules Powder Company, Circa 1900s

Present Day
Hercules Powder Company, Circa 1900s

Present Day
1960: Plant Rebuilt for Fertilizer/Rocket Fuel

Present Day
Project Vision

Development Program

- 1,400 multi-family units
- 115,000 sq. ft. of office
- 134,000 sq. ft. of flex uses
- 90,000 sq. ft. neighborhood-serving retail
- 10.9 acre public parks
Environmental Remediation

- Manufacturing on site from 1879 to 1979
- Site produced explosives, fertilizer and chemicals
- Placed on CA State Superfund in 1983
  - Contaminated soils and groundwater
- From 1989 to present, site remediated under oversight from DTSC
- Majority of cleanup completed in 2006

Major Transit Access Routes
Transit Access

Creek Restoration
High Density Housing

Mixed Use: Bayfront Boulevard
Public Spaces

Walkability

- Pedestrian-oriented street design
- Sidewalks on all streets
- Building entries facing public spaces
- Transparent building facades
- Minimal building setbacks
- On-street parking
- Street trees
LEED-ND GOLD!!!

Smart Location and Linkage 18 of 27
Neighborhood Pattern and Design 28 of 44
Green Infra. and Building 14 of 29
Innovation and Design Process 4 of 6

Total 64 of 106

LEED-ND Gold

For More Information

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Marketplace Redevelopment

Denise Pinkston, Partner
TMG Partners

Marketplace Redevelopment Project
Emeryville Marketplace

• Cars dominate the land: walk through parking to buildings
• Fully leased buildings: tenant leases pledge free surface parking
• Most users drive: even with AMTRAK and free BART shuttle
• Heavy existing traffic: development adds to freeway and surface congestion
• Brownfield: capped contaminated site with DTSC restrictions

Emeryville Marketplace – Land Use

• Transit-Oriented High Density mixed use neighborhood
• TMP Operation over time slowly rebalances car and transit incentives
  – Parking reduced, structured and paid
  – Transit discounts, multi-modal upgrades, new services
  – Designs to encourage walking
• Active land uses replace cars with people
• Streets lined with public places in multi-storied living and working environment
• Vibrant neighborhood with varied architecture
Points In Place Before LEED ND Pilot Created

**80 out of 87 points from Site Conditions, Owner’s Sustainable Operations, EIR Alternative Project and TMP**

- **Site Selection (33 points)** Previously developed brownfield, historic structures saved, transit, density, and services.
- **Dense Infill Urban Design (21 points)** Dense, mixed use development, walkable streets, and affordable housing.
- **Sustainable Property Operation (8 points)** Green business certification for food court, grease waste to biofuel re-use, LEED AP, recycling and composting program, car share program, accessibility, community outreach, light pollution reduction.
- **Municipal/State Code Requirements (18 points)** City required green buildings, energy efficiency, landscape water use reduction, stormwater reduction, transportation management plan.
- **Additional Green Technology Features (7 points)** Water reduction, renewable energy (wind/solar/biofuel), infrastructure, energy efficiency and recycled content materials.

80 points – project is at LEED Platinum!

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**Site Selection (33 points)**

- Previously developed brownfield, historic structures saved, transit available, density nearby and in design, and services available.
- Dense green neighborhood outside central city harder to achieve LEED Rewards

Smart Infill in Suburbs with ND Program
Dense Infill Urban Design (21 points)

- Dense, mixed use development, walkable streets, and affordable housing
- Pedestrian places dominate land at ground, buildings replace surface parking
- Density sufficient to support transit and services
Support for Marketplace Redevelopment

As a model for Green Infill Projects

- First Platinum Certified Neighborhood Development in the United States

Marketplace Redevelopment

The result of 4 years of collaboration with Emeryville: creates people-friendly transit-oriented neighborhood with shops, services, homes, open space, walkways and gathering places in a sustainable LEED Platinum community
Township 9 – Sacramento CA

Laura Bonich, PE, LEED AP
Nolte Associates

Township 9
LEED for Neighborhood Development

- 65 Acre
- Mixed use
- Urban infill
- Industrial redevelopment
- Transit oriented
- Pedestrian friendly
- Urban parks and open space
Land Use Plan – 13 Parcels

- 31.7 net acres
- 27 acres Open space
- 2359 Residential Units (74 du/ac)
- 150,000 sf of Retail
- 840,000 sf of Office
- About 4 million sf total
- 5,400 parking spaces

Township 9 – Land Use Plan

Township 9 is being developed by Capital Station 65 LLC

(a joint venture between Sacramento based nonprofit Nehemiah Corp. of America and Sacramento developers Ron Mellon and Steve Goodwin)
Township 9
Existing Cannery and Industrial Site

- Demolish about 1.4 million sf of existing structures
- Establish temporary recycling facility

LEED for Neighborhood Development

GOLD - Phase 2 Project

- SMART LOCATION AND LINKAGE: 19 points
- NEIGHBORHOOD PATTERN AND DESIGN: 31 points
- GREEN CONSTRUCTION AND TECHNOLOGY: 8 points
- INNOVATION IN DESIGN: 1 point
- LEED ACREDITED PROFESSIONAL: 1 point

TOTAL: 60 points
LEED for Neighborhood Development

**SMART LOCATION AND LINKAGE**

**POINTS**

- **Credit 1** Brownfield Redevelopment
- **Credit 2** High Priority Brownfield Redevelopment
- **Credit 3** Preferred Location
- **Credit 4** Reduced Automobile Dependence
- **Credit 5** Bicycle Network
- **Credit 6** Housing and Jobs Proximity
- **Credit 7** School Proximity
- **Credit 8** Steep Slope Protection
- **Credit 9** Site Design for Habitat or Wetlands Conservation
- **Credit 10** Restoration of Habitat or Wetlands
- **Credit 11** Conservation Management of Habitat or Wetlands

**19 TOTAL**

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LEED for Neighborhood Development

**NEIGHBORHOOD PATTERN AND DESIGN**

- **Credit 1** Compact Development
- **Credit 2** Diversity of Uses
- **Credit 3** Diversity of Housing Types
- **Credit 4** Affordable Rental Housing
- **Credit 5** Affordable For-Sale Housing
- **Credit 6** Reduced Parking Footprint
- **Credit 7** Walkable Streets
- **Credit 8** Street Network
- **Credit 9** Transit Facilities
- **Credit 10** Transportation Demand Management
- **Credit 11** Access to Surrounding Vicinity
- **Credit 12** Access to Public Spaces
- **Credit 13** Access to Active Public Spaces
- **Credit 14** Universal Accessibility
- **Credit 15** Community Outreach and Involvement
- **Credit 16** Local Food Production

**31 TOTAL**
LEED for Neighborhood Development

**GREEN CONSTRUCTION AND TECHNOLOGY**

- Credit 1 LEED Certified Green Buildings
- Credit 2 Energy Efficiency in Buildings
- Credit 3 Reduced Water Use
- Credit 4 Building Reuse and Adaptive Reuse
- Credit 5 Reuse of Historic Buildings
- Credit 6 Minimize Site Disturbance through Site Design
- Credit 7 Minimize Site Disturbance during Construction
- Credit 8 Contaminant Reduction in Brownfield Remediation
- Credit 9 Stormwater Management
- Credit 10 Heat Island Reduction
- Credit 11 Solar Orientation
- Credit 12 On-Site Energy Generation
- Credit 13 On-Site Renewable Energy Sources
- Credit 14 District Heating & Cooling
- Credit 15 Infrastructure Energy Efficiency
- Credit 16 Wastewater Management
- Credit 17 Recycled Content for Infrastructure
- Credit 18 Construction Waste Management
- Credit 19 Comprehensive Waste Management
- Credit 20 Light Pollution Reduction

**TOTAL**

Township 9 – Design Guidelines

Capitol Station 65, LLC

**DESIGN GUIDELINES**
Township 9 – Land Use

- Transit Area
- Live work Townhouses
- Central Mixed Use
- Riverfront Area

Township 9 - Transit Area

- Transit area with light rail and arterial access to I-5
- 8 to 15 story
- Mixed offices with possible residential
- Create densities to support future light rail stop
Green Line Light Rail to Downtown

Township 9 – Central Mixed Use

- Retail - 3 to 5 Story
- Live work - 2 to 4 story
- Multi-family Residential
Township 9 – Riverfront Area

• Increase public use and enhance appearance
• River front area graded to meet levee to eliminate levee as a “barrier”
• Visual and Physical connection to American River
• Buildings along Riverfront Drive limited to 4 stories (residential w/ground floor retail)
• Two Rivers Trail – connects to regional multi-use trail
• Enhance and complement native vegetation
Township 9 – Riverfront Area

[Diagram showing riverfront area with labels for American River Parkway, 2 Rivers Trail, Riverfront Park, and Riverfront Drive.]

Township 9 – Riverfront Area

[Another diagram with a view of a riverfront park with people cycling and walking.]
Township 9 – Riverfront Area

- Oakwood Land with native oak trees and grasses
- Revegetate
- Plant non-invasive species
- Control irrigation, fertilizer and surface runoff

Township 9 – Storm Water Quality

- STREET SIDE PLANTERS
  - Stormwater Planters
- PARKING LINES
  - Porous Pavement
- MEDIAN
  - Vegetated Swales
- PLAZA
  - Porous Pavement
  - Other Treatment Control Measures
- TRANSIT AREA
  - Porous Pavement
  - Stormwater Planter

MEASURES ON ALL STREETS
- Disconnected Sidewalks
- Intercept Trees
Township 9 – Storm Water Quality

DRIVEWAYS & SURFACE PARKING
• Porous Pavement

BUILDING SETBACKS
• Stormwater Planters

PASEOS
• Vegetated Swales
• Stormwater Planters
• Other Small Treatment Measures

PRIVATE OPEN SPACE (BUILDING COURTYARDS)
• Stormwater planters
• Vegetated swales
• Infiltration trenches
• Sand filters
• Vegetated Filter Strips

ROOFS
• Ecoroofs

California Department of Housing and Community Development: Infill Infrastructure Grant Program (IIG) - $23 million (Prop 1C)

- Assist in the new construction and rehabilitation of infrastructure that supports higher-density affordable and mixed-income housing in locations designated as infill
- New construction, rehabilitation, and acquisition of infrastructure required as a condition of or approved in connection with approval of Qualifying Infill Projects
- St Anton building 180 for affordable for rent units
Township 9 Funding

Richards’s Boulevard Redevelopment Agency
- Established in 1990
- 1365 acres
- $100 million in fees (Federal and Local)

Sacramento Regional Transit District
- Light Rail Green Line
- Measure A Sales Tax
- $44 million
- 2 stations and 1.1 miles of track

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QUESTIONS?