Envision ™

A Rating System for Sustainable Infrastructure

Presentation to the

LONG BEACH

SUSTAINABLE CITY COMMISSION

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Today's Comments

- What is ISI and Envision™ ?

- Why is it important to Long Beach?

- What other cities are using it?

- How might Long Beach get involved?

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What is ISI

Institute for Sustainable Infrastructure – ISI

- Not-for-profit education and research corporation

Founded in 2010 by:

- American Council of Engineering Cos. – ACEC – 5,000 cos.
- American Society of Civil Engineers – ASCE – 140,000 members
- American Public Works Association – APWA – 28,500 members

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What is Envision™

Rating System for Sustainable Infrastructure

- Similar to LEED, but for non-habitable facilities

- Jointly developed by ISI and Harvard Graduate School of Design's Zofnass Program for Sustainable Infrastructure

More than a Rating System

- A tool to guide planning and design decisions
- A multi-discipline approach to infrastructure sustainability
- Useful to all sizes and phases of infrastructure projects
- A system to document choices

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What Types of Infrastructure Will Envision™ Rate?

ENERGY

Geothermal

Hydroelectric

Nuclear

Coal

Natural Gas

Oil/Refinery

Wind

Solar

Biomass

WATER

Potable water
distribution

Capture/Storage

Water Reuse

Storm Water

Management

Flood Control

WASTE

Solid waste

Recycling

Hazardous
Waste

Collection &
Transfer

TRANSPORT

Airports

Roads

Highways

Bikes

Pedestrians

Railways

Public Transit

Ports

Waterways

LANDSCAPE

Public Realm

Parks

Ecosystem
Services

INFORMATION

Telecommunications

Internet

Phones

Satellites

Data Centers

Sensors

The Envision™ Rating System

60 CREDITS IN 5 CATEGORIES

QUALITY OF LIFE
13 CREDITS

LEADERSHIP
10 CREDITS

RESOURCE ALLOCATION
14 CREDITS

NATURAL WORLD
15 CREDITS

CLIMATE AND RISK
8 CREDITS

5 LEVELS OF ACHIEVEMENT

IMPROVED

ENHANCED

SUPERIOR

CONSERVING

RESTORATIVE

Envision™ Project Credits

QUALITY OF LIFE

QL1.1	Community Quality of life
QL1.2	Stimulate Sustainable Growth
QL1.3	Local Skills
QL2.1	Public Health and Safety
QL2.2	Noise and Vibration
QL2.3	Light Pollution
QL2.4	Mobility and Access
QL2.5	Alternative Transportation Modes
QL2.6	Site Accessibility
QL3.1	Historic and Cultural
QL3.2	Views, Local Character
QL3.3	Public Space
QL0.0	Innovation

LEADERSHIP

LD1.1	Effective Leadership
LD1.2	Sustainability Management System
LD1.3	Collaboration
LD1.4	Stakeholder Involvement
LD2.1	By-Product Synergy
LD2.2	Integration
LD3.1	Long Term Monitoring and Maintenance
LD3.2	Regulatory/Policy Conflicts
LD3.3	Extend Useful Life
LD0.0	Innovation

RESOURCE ALLOCATION

RA1.1	Embodied Energy
RA1.2	Procurement
RA1.3	Recycling
RA1.4	Regional Materials
RA1.5	Divert Waste
RA1.6	Reduce Material Export
RA1.7	Deconstruction
RA2.1	Reduce Energy Consumption
RA2.2	Renewable Energy
RA2.3	Monitor Energy Systems
RA3.1	Water Availability
RA3.2	Water Consumption
RA3.3	Monitor Water Systems
RA0.0	Innovation

NATURAL WORLD

NW1.1	Prime Habitat
NW1.2	Wetlands Surface Water
NW1.3	Prime Farmland
NW1.4	Geologic Hazard
NW1.5	Floodplains
NW1.6	Steep Slopes
NW1.7	Greenfields
NW2.1	Storm water
NW2.2	Pesticides
NW2.3	Water Contamination
NW3.1	Biodiversity
NW3.2	Invasive Species
NW3.3	Disturbed Soils
NW3.4	Maintain Water Functions
NW0.0	Innovation

CLIMATE AND RISK

CR1.1	Greenhouse Gas Emissions
CR1.2	Air Pollutants
CR2.1	Climate Threat
CR2.2	Traps and Vulnerabilities
CR2.3	Long-term Adaptability
CR2.4	Short-term Hazards
CR2.5	Heat Islands
CR0.0	Innovation

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Status of Envision™

- All available online
  - Rating system, guidance manual, training, testing, blog
  - Third party verifier training and credentials, FAQs

- 3,000 ENV SP's
  - Goal of 100,000 by 2020

- Six projects peer reviewed and recognized

- 35 projects in the review pipeline

- 350 est. projects using Envision™

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Why is it important to Long Beach?

Benefits for policy makers:

- A vocabulary for infrastructure sustainability
- Assure stakeholders that projects are sustainable
- SOQs and RFPs are beginning to require Envision

It is becoming the national standard for Infrastructure Sustainability

Benefits for staff members:

- Can become credentialed (similar to LEED)
- It has metrics to guide decision making
- It documents project decisions

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Who is Using Envision™ in California?

- CA Department of Water Resources
- Caltrans and Measure Counties Studying
- Port of Long Beach
- Port of Los Angeles
- County of Los Angeles
- City of Los Angeles
- City of Beverly Hills
- City of Santa Ana

... and more every day

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What Projects Have Used Envision™?

6th Street Viaduct, City of Los Angeles

- $400 million bridge replacement
- Required in RFP

South Los Angeles Wetland Park

- Multi-purpose stormwater detention and treatment
- Multiple Platinum Awards

City of Beverly Hills

- Santa Monica Boulevard Refurbishment

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What Projects Have Used Envision™?

County of Los Angeles Stormwater Treatment Program

- Multi-project detention and treatment

City of Santa Ana

- Pump station replacement program

Projects in early discussions with ISI:

- Major airport expansion
- Major port expansion
- Major transportation corridors
- An "Envision Ready" city in Pakistan
- Brazil and Italy are in discussions to adopt

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Conclusion

Envision™ ~ a universally accessible tool

- Provides metrics for sustainable infrastructure
- Provides direction to the design and construction teams
- Creates confidence in the process of developing infrastructure, considering sustainability

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How Can Long Beach Get Involved?

- Adopt Envision™ for Infrastructure Sustainability

- Join ISI. (Free to public sector)

- Recommend use for infrastructure projects

- Encourage staff to become credentialed ~ ENV SP

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Questions / Contact Information

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