

CITY OF SARASOTA
Downtown Improvement District
&
Low Impact Development (LID)
and Light Imprint



Presentation Overview

- Introductions
- Objective
- Topics of Discussion
- Questions

Introductions

- Stephen Long - *Logan & Long, Inc., SEUAC*
- Robert Bresciani/Kelly Westover - *Sarasota County*
- Tim Roane & Kreg Maheu - *DMK Associates, Inc.*
- Peter Keenan/Russell Moore - *Calle Verde*

Objective

- To incorporate Low Impact Development (LID) and Light Imprint techniques into downtown capital improvement projects. These techniques create a vibrant, walkable and sustainable downtown community while protecting and restoring downtown's most important natural resource and economic driver, Sarasota Bay.

Topics of Discussion

- Sarasota County's role in Stormwater Management for downtown Sarasota.
- Low Impact Development (LID), Light Imprint and the benefits of design for the Downtown Improvement District (DID).
- Opportunities for the DID.

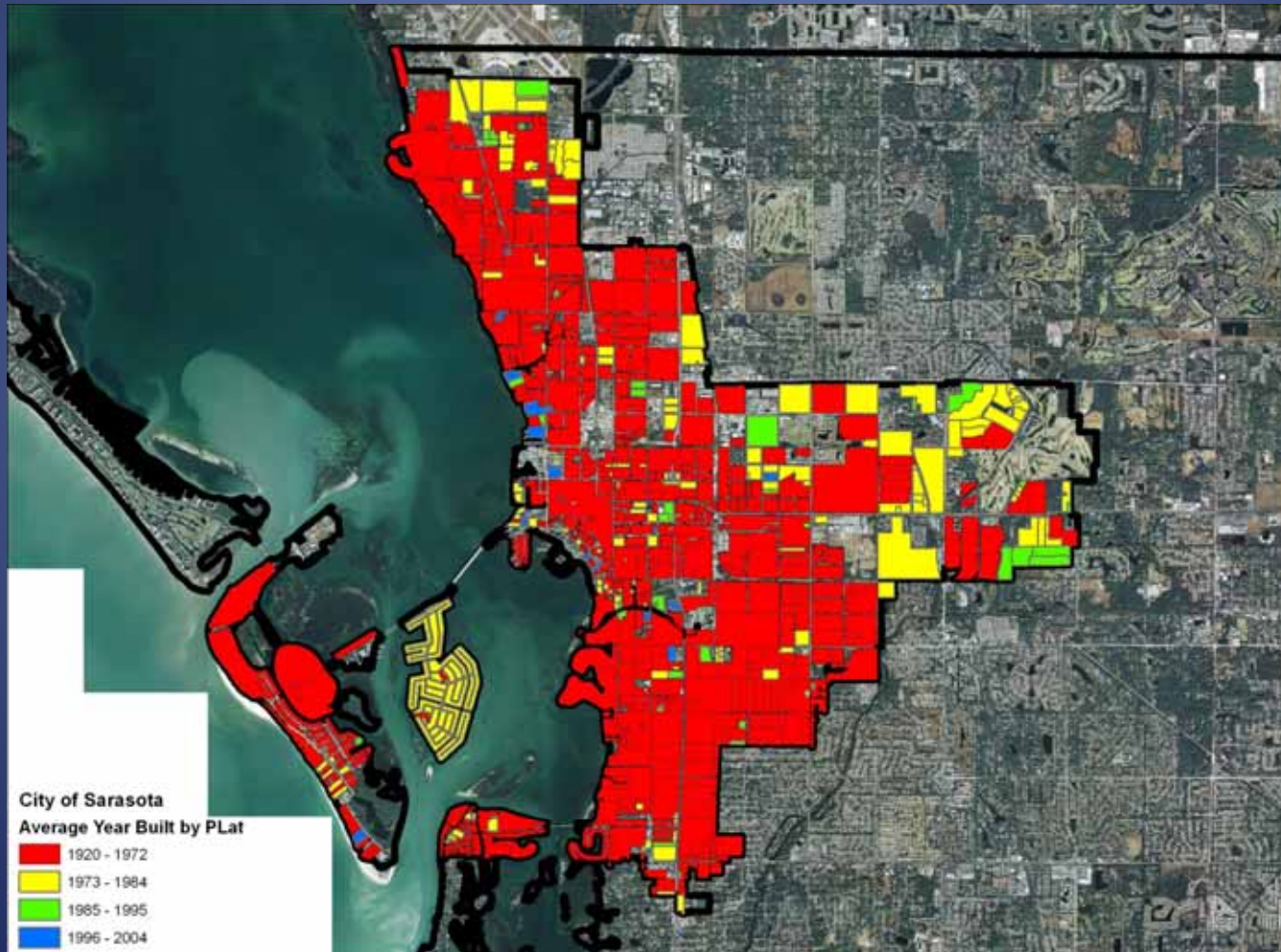
Sarasota County's role in Stormwater Management

- In 2008, Sarasota County completed a preliminary LID manual.
- Sarasota County & SWFWMD, in Partnership with the SBEP, are currently developing the Sarasota Bay Water Quality Management Plan (SBWQMP).

Sarasota County's role in Stormwater Management (cont'd)

- The SBWQMP identifies stormwater runoff as the leading source of pollution in Sarasota Bay.
- The analysis also indicates that older developed urban areas have the highest amounts of stormwater runoff entering Sarasota Bay.

Sarasota County's role in Stormwater Management (cont'd)




Sarasota County's role in Stormwater Management (cont'd)

- The SBWQMP identifies a great opportunity to improve water quality by retrofitting downtown with LID and Light Imprint techniques.

So What is LID?

- Low impact development (LID) is an approach to development that uses various land planning, design and construction practices to conserve and protect natural systems while reducing infrastructure costs through its emphasis on cost-effective strategies at the site level.



Conserves water supply,
attenuates flooding, reduces
pollutant loading, helps
support natural systems and
reduces cost.

What is Light Imprint?

- Light Imprint is a planning and development strategy that emphasizes sustainability, pedestrian-oriented design, and efficiency while reducing a community's anticipated construction expenses.



Light Imprint

- The Light Imprint approach to stormwater management is rooted in New Urbanism which promotes traditional neighborhood design.



Tool Box

Site Related:

- Reduce Impervious Area
- Pervious Concrete
- Pervious Asphalt
- Inlet Filters
- Tree Preservation
- Recycle Materials
- Rain Gardens
- Veg. Buffers
- Bioswales
- Soil Amendments

Building Related:

- Green Roofs
- Rain Cisterns
- Solar Power

Success is not so much in the tools used but in knowing how and where to use them!

Benefits

- Reduce cumulative stormwater impacts of downtown development.
- Improve the quality of Sarasota Bay by treating urban runoff.
- Potential to reduce cost of DID capital improvement projects through cooperative funding.
- Maximize land use opportunities within the DID.

Retrofitting Can Reduce Cumulative Impacts by:

- Supporting a more natural hydrology
- Reducing pollutant loading
- Providing stormwater quality treatment
- Providing Florida friendly landscaping
- Supplementing alternative water supply
- Reducing energy use
- Enhancing sustainability

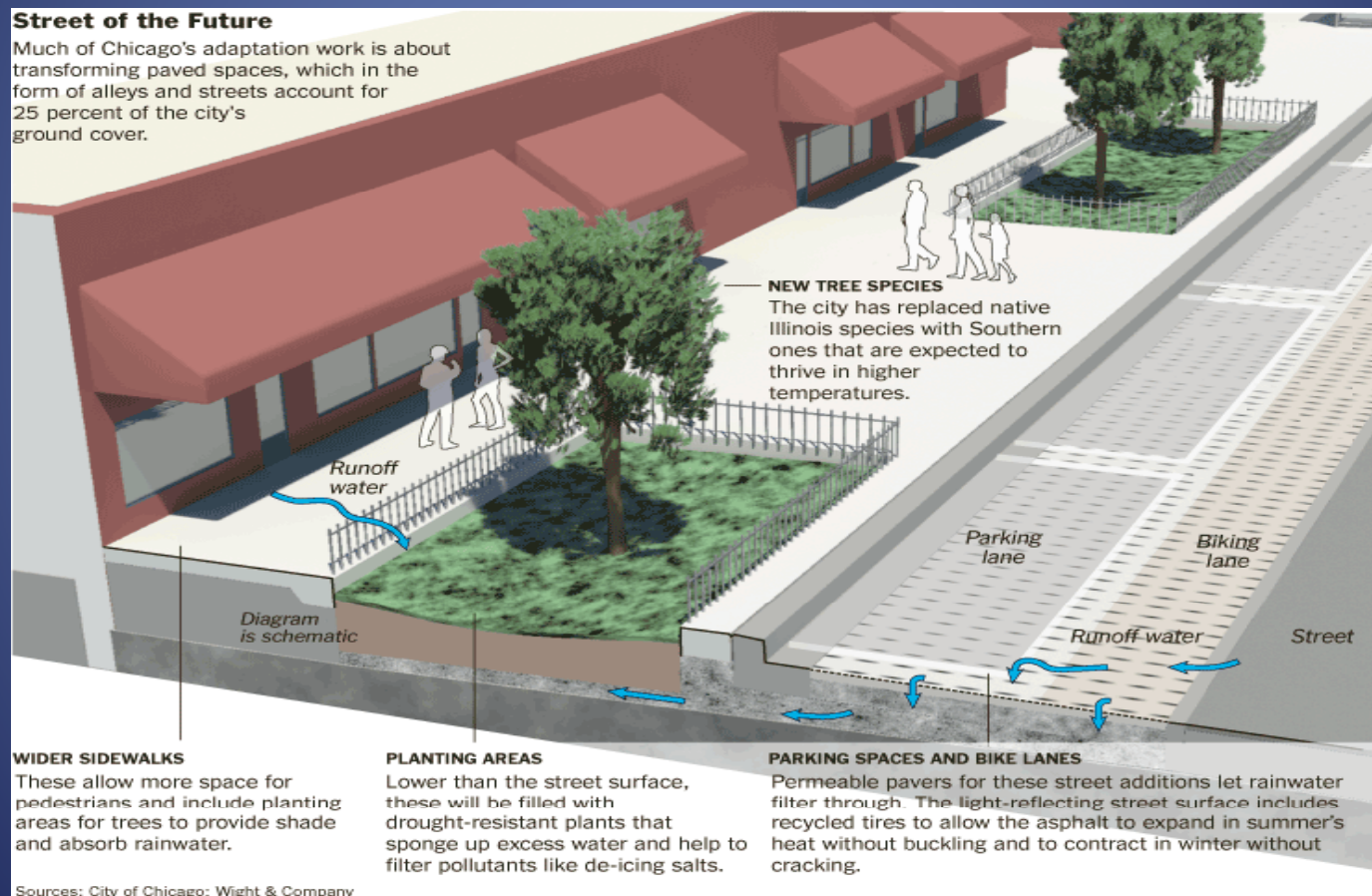
Stormwater Treatment

- Treats stormwater at the source with:
 - Pervious Pavement
 - Porous Concrete
 - Rain Gardens



Stormwater Treatment

■ Water quality treatment within right of way



Sources: City of Chicago; Wight & Company

...Not Necessarily More Expensive

- Can lower costs by reducing:
 - Property acquisition needs
 - Land clearing & grading
 - Reduce or eliminate dedicated stormwater management areas & their maintenance.

Cost Comparisons Between Conventional and LID Approaches

Project ^a	Conventional Development Cost	LID Cost	Cost Difference	Percent Difference
2nd Avenue SEA Street	\$868,803	\$651,548	\$217,255	25%
Auburn Hills	\$2,360,385	\$1,598,989	\$761,396	32%
Bellingham City Hall	\$27,600	\$5,600	\$22,000	80%
Bellingham Bloedel Donovan Park	\$52,800	\$12,800	\$40,000	76%
Gap Creek	\$4,620,600	\$3,942,100	\$678,500	15%
Garden Valley	\$324,400	\$260,700	\$63,700	20%
Kensington Estates	\$765,700	\$1,502,900	-\$737,200	-96%
Laurel Springs	\$1,654,021	\$1,149,552	\$504,469	30%
Mill Creek	\$12,510	\$9,099	\$3,411	27%
Prairie Glen	\$1,004,848	\$599,536	\$405,312	40%
Somerset	\$2,456,843	\$1,671,461	\$785,382	32%
Tellabs Corporate Campus	\$3,162,160	\$2,700,650	\$461,510	15%

Source: US EPA

West Dearborn Street Project Comparison

- Stormwater Treatment Area:
 - Original Vault Project (OVP) 26 Ac. vs. LID 62 Ac.
 - OVER TWICE THE TREATMENT AREA
- Parking:
 - OVP 69 spaces vs. LID 208 spaces
 - NET INCREASE OF 139 SPACES
- LID improvements not included in OVP:
 - Improved alleys, Sidewalks, Landscaping/Aesthetics, Canopy Tree Preservation.

West Dearborn Street Cost Comparison

- Estimated Costs/Acre of Stormwater Treatment
 - Estimated cost of OVP - \$5.0M
 - Estimated cost of Phase 1 LID Project - \$7.0M
 - Cost Breakdown per Acre
 - OVP – $\$5.0\text{M}/26 \text{ Ac.} = \$192,300/\text{Ac.}$
 - LID Project - $\$7.0\text{M}/62 \text{ Ac.} = \$112,900/\text{Ac.}$
 - Cost Savings of \$79,400 per Acre

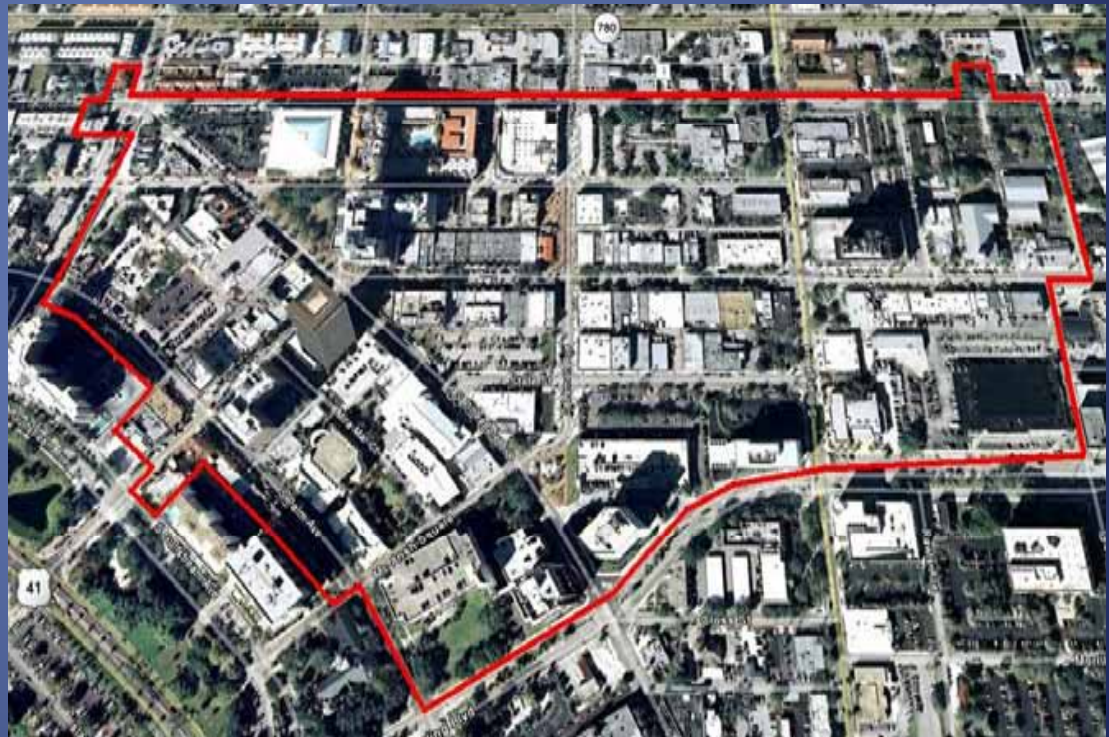
Multi-Function Land Uses

- Increases environmental & social benefits as well as visual aesthetics.
 - Multi-modal transportation
 - Parking
 - Landscaping
 - Aesthetic improvements
 - Educational Opportunities



Maximize Use of Valuable Real Estate

- Allows the fullest utilization of valuable real estate.



Funding Opportunities

- Federal
 - EPA
 - HUD
- State
 - FDEP
- Regional Agencies
 - Water Management Districts
- Local Government
 - Neighborhood Improvement Grants
 - Community Development Block Grants (CDBG)
- Corporate/Foundations



Opportunities for the DID

- Immediate Opportunities
 - Main Street
 - Palm Avenue
 - Pilot Projects...
- Long Range Opportunities
 - Stormwater Quality Master Plan for downtown Sarasota.

Why LID/Light Imprint?

- Celebration of the waterfront.
- Environmental stewardship.
- Savings for DID on CIP projects.
- To create a place unlike those of your competitors, recognizably different.

??? Questions ???

Contact:

Kreg Maheu, P.E.

Tim Roane, P.E.

DMK Associates, Inc.

435 Commercial Court, Suite 200

Venice, FL 34292

(941) 412-1293

kmaheu@dmkassoc.com

troane@dmkassoc.com



Visit us at www.dmkassco.com