



LEED ND

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Introduction

- About Arup
- What is LEED Neighborhood Development?
- Challenges in implementing LEED ND
- Future of LEED ND in Brazil and internationally

Quem somos

Uma empresa global, integrada e multidisciplinar com profissionais trabalhando em conjunto para resolver problemas complexos em edificações, infraestrutura e sistemas

Mais de 9.000 engenheiros, projetistas, planejadores, consultores e economistas

Rede de 87 escritórios em 38 países

Serviços de sustentabilidade

Desenvolvimento sustentável e masterplanning

Elaboração e avaliação de projetos sustentáveis

Mudança climática e gerência de carbono

Consultoria em transações e avaliação de portfólios

Planejamento estratégico e responsabilidade social corporativa



Nossos escritórios





BedZED – Zero Carbon Development, London



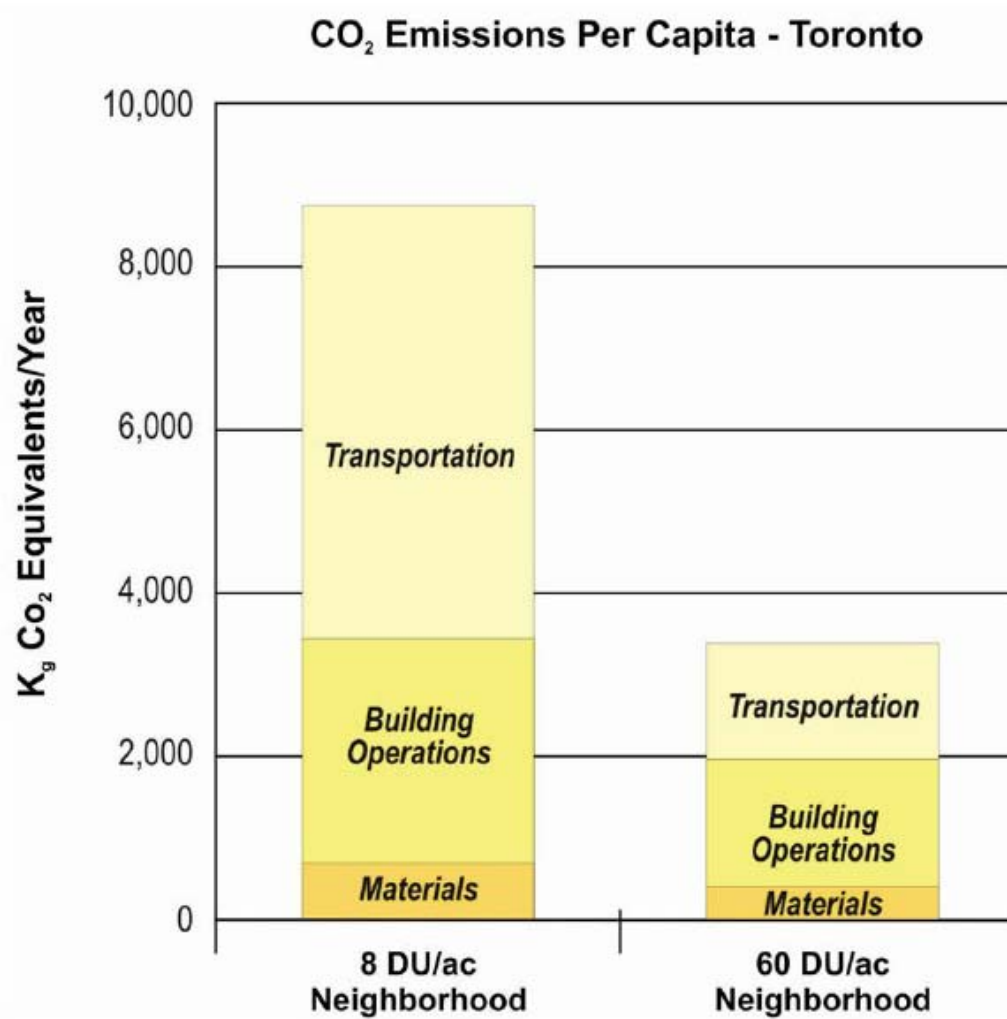
What is LEED ND?



Why LEED ND?



Carbon implications



Source: Norman, ASCE 2006

LEED ND's vision



Source: Urban Advantage

Collaboration to Develop LEED ND

What LEED-ND Is: **A Collaborative Program**



Evolution of LEED ND

2004

**Begin development
of rating system**

2007

**Pilot Program
Launches**

2009

**Release of
2009 version**

2010

**Certification
Launch**

Economic Benefits

“**56%** of respondents **prefer smart growth neighborhoods** over neighborhoods that require more driving between home, work, and recreation”

“**77% look for** neighborhoods with abundant sidewalks and **pedestrian-friendly features**”



Credit Categories

LEED® for Neighborhood Development

Total Possible Points 110***

 **Smart Location & Linkage 27**

 **Neighborhood Pattern & Design 44**

 **Green Infrastructure & Buildings 29**

** Out of a possible 100 points + 10 bonus points*

*** Certified 40+ points, Silver 50+ points,
Gold 60+ points, Platinum 80+ points*

 **Innovation & Design Process 6**

 **Regional Priority Credit 4**



Smart Location & Linkage

Build This:



Keep This:





Neighborhood Pattern & Design

Compact, Complete, Connected

- People connected to place and to each other
- Shared public spaces
- Nearby goods and services





Green Infrastructure & Buildings

Energy Use

24%-50%

CO₂ Emissions

33%*** -39%**

Water Use

40%**

Solid Waste

70%**

Green Buildings Can Reduce...

* Turner, C. & Frankel, M. (2008), Energy performance of LEED for New Construction buildings. Final report.

** Kats, G. (2003). The Costs and Financial Benefits of Green Building. A Report to California's Sustainable Building Task Force.



Innovation & Design Process

Going above and beyond

IDP Credit 1: Innovation and Exemplary Performance

- 1-5 points

IDP Credit 2: LEED Accredited Professional

- 1 point





Regional Priority Credit

Meeting Local Needs

RPC Credit 1: Regional Priority

•1-4 points

www.usgbc.org/LEED



“LEED Resources”



“Regional Priority Credit Database”

Regional Priority Credits

Through USGBC's regional councils, chapters and affiliates, the following regionally priority credits were selected. Earning up to four of the six credits in a project's location will earn a project one bonus point toward LEED certification under the [LEED 2009 rating systems](#).

Step 1: Select a Rating System Type. You can choose from Building Specific Rating Systems, or Neighborhood Specific Rating Systems. Since they have varying implications on Regional Priority Credits, you must specify the path you wish to take:

• Building Specific Rating Systems

ALL
 LEED 2009 for New Construction
 LEED 2009 for Core & Shell
 LEED 2009 for Schools
 LEED 2009 for Retail – Commercial Interiors
 LEED 2009 for Existing Buildings: Operations & Maintenance
 LEED 2009 for Commercial Interiors
 LEED 2009 for Retail – New Construction

• Neighborhood Specific Rating Systems

LEED 2009 for Neighborhood Development

OR

Step 2: Select a geographic location. You can choose to search within a zip code or search near a known address.

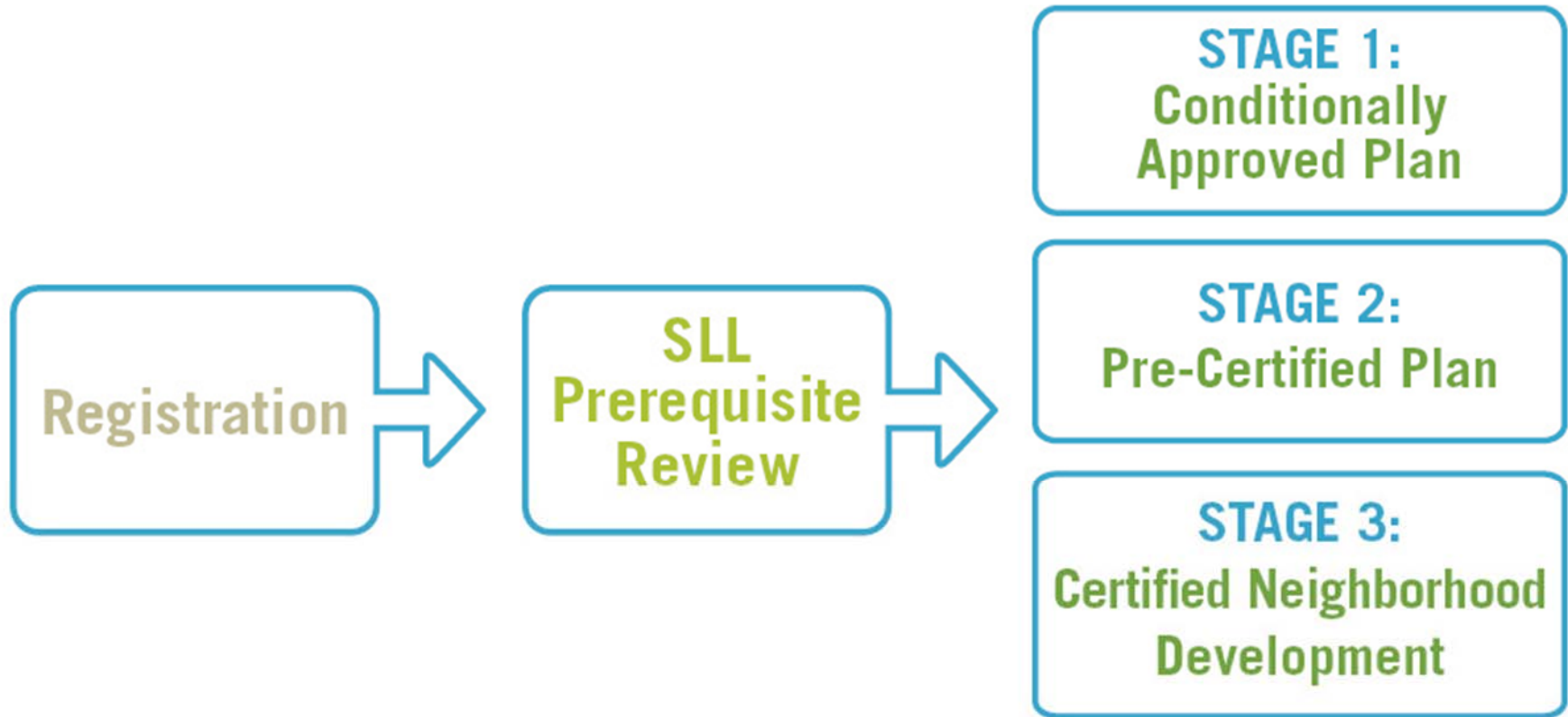
Search by Country:

• Search within Zip/Postal Code:

-OR-

• Search near Address:

LEED ND Certification process



www.gbci.org/leednd



Dockside Green, Vancouver



Dockside Green Photo Credit: Enrico Dagostini & Vince Klassen



Dockside Green Photo Credit: Enrico Dagostini & Vince Klassen



Wentworth Commons Photo Credit: Anthony May Photography

Can be applied to small communities



... and large communities



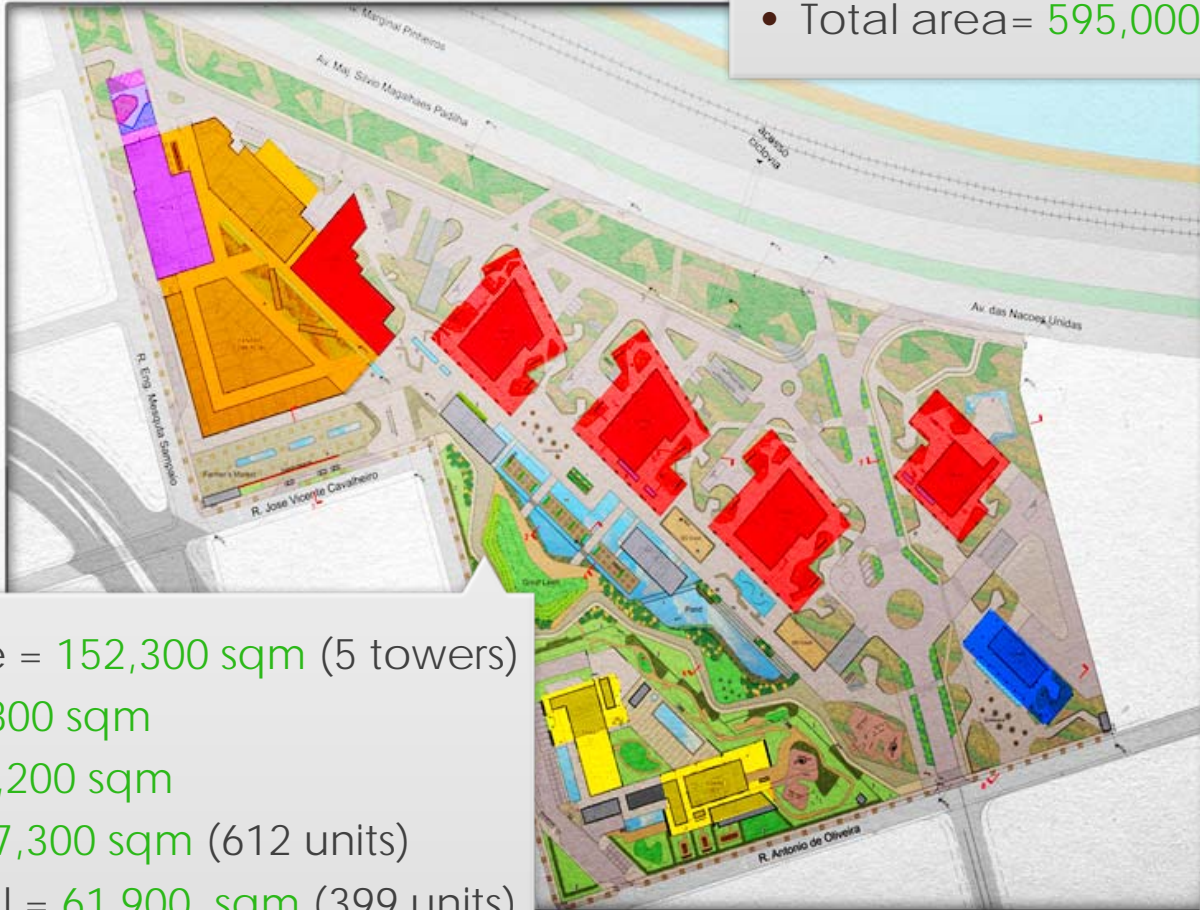
Parque da Cidade

OR ODEBRECHT
REALIZAÇÕES IMOBILIÁRIAS



Parque da Cidade

- Site area= 83.700 sqm
- Max usable area (4x)= 335.000 sqm
- Total area= 595,000.00 sqm



- Corporate = 152,300 sqm (5 towers)
- Mall = 21,800 sqm
- Hotel = 25,200 sqm
- Office = 27,300 sqm (612 units)
- Residential = 61,900 sqm (399 units)
- Over 22,000 sqm of green area



CLIMATE⁺
Candidate

How many LEED ND projects

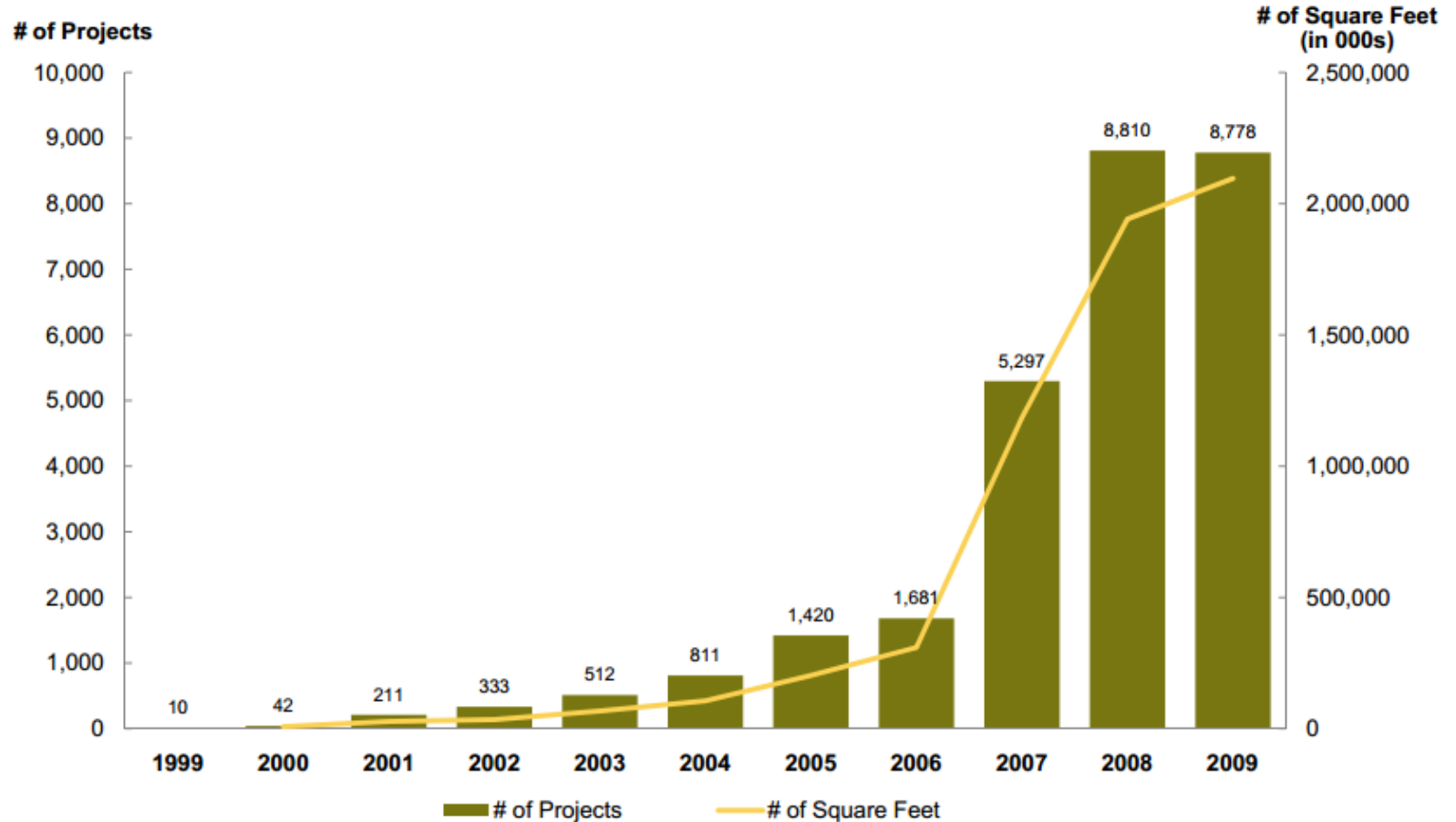
- 50,000 Global LEED Registered projects (mostly buildings)
- 15,000 Global Certified Projects
- 574 Registered in Brazil
- 69 Certified in Brazil
- 318 Global LEED ND Projects
- 4 LEED ND projects in Brazil



Challenges of LEED ND

- Must be in English
- Very Prescriptive
- US-centric, asks for US specific data
- Some cultural clashes e.g. gated communities
- Long process
- Requires more collaboration

Market Value of LEED



Note: Square footage information for projects registered in 1999 was not available.

SOURCE: U.S. Green Building Council; RCLCO

Market Value of LEED ND

- More urbanization, more competition = need to differentiate
- Aging population, more walkable neighborhoods
- Increased awareness of ‘sustainability’ and willing to pay
- Local Governments creating incentives to encourage LEED ND
- Success of LEED for Buildings (>5% rental/sale premium)

What next for LEED ND?

- LEED 2012
- Ongoing consultation process
- More internationally focused
- Regional Priority credits

- If you don't certify then use it as a framework

Obrigado!

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