Green Infrastructure and Low Impact Development

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Defining Green Infrastructure

Strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations.

It refers to the development of systems that mimic natural process to infiltrate, Evaporate and/or reuse stormwater.

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Defining Low Impact Development

An innovative development approach with a basic principle that is modeled after nature: Mimic a sites' predevelopment hydrology by using design techniques that infiltrate, filter, Store, evaporate and detain stormwater runoff close to its source.

Rather than moving stormwater off site through a conveyance system, the goal of low impact development is to restore the natural, pre-developed ability of a site to absorb stormwater.

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Green Space

- More than just grass
- Essential part of sustainable development
- Conserves biodiversity
- Contributes to cooling and improving air quality
- Can help reduce building heating & cooling costs
- Counters warming effect of paved surfaces
- Reduces impact on municipal sewer systems

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Stormwater

- Includes water that originates during precipitation events, snow melts,and over-watering

- As it relates to low impact development:
  - Stormwater pollution is primary consideration
  - Dealing with impervious surfaces
  - Risk of erosion and flooding
  - Threat of pollutants entering water system
  - Maintaining healthy waterways & supply systems

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Making the Choice

- Sites where the opportunity is available
- Biggest impact areas – Urban vs. Rural
- Commitment to environment and community

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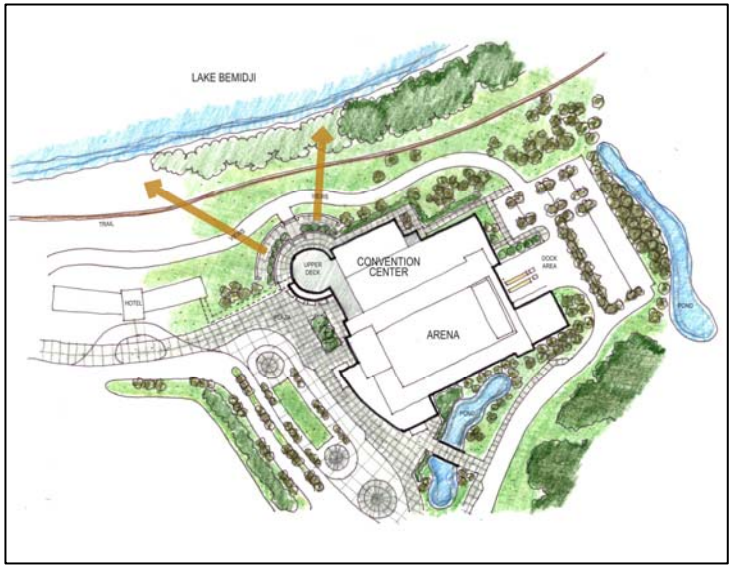
The Development Process



- Choosing a site
- Site design – low impact development
  - Reduce impervious cover
  - Preserve natural lands
  - Capture stormwater on-site

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Low Impact Development Techniques

Rain Barrel

Low Impact Development Techniques

Grass Swales

Low Impact Development Techniques

Retention Pond

Low Impact Development Techniques

Rain Gardens

Low Impact Development Techniques

Green Roof

End User Benefits

- Reduced operating costs
- Limited impact on environment
- No premium for tenant
- Connection to nature
- Improved air quality
- Increased employee productivity

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Additional Benefits

- Parks & Trails
- Plant & Wildlife
- Low Impact Maintenance
- Heat Island Effect

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JW Danforth Headquarters
Victor, NY

- No connection to public stormwater sewer
- Site drainage retained on-site
- Large portion of site is greenspace
- LEED Silver building

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NOTE LEGEND

1. 4" TOPSOIL & SEED IF NO PLANTINGS-SEE LANDSCAPING PLAN.
2. RUN OUT CURB IN 2'-0" OR MATCH EXISTING
3. SAW CUT EDGE OF PAVEMENT, TACKCOAT & MATCH GRADE.
4. KNOX BOX INSTALLATION LOCATION. COORDINATE WITH ARCHITECTURAL DWGS. ANY FIRE DETECTION/SUPPRESSION SYSTEM MAPS WILL NOTE HAZARDOUS MATERIALS AND WILL BE PROVIDED IN THE KNOX BOX & SENT TO THE FIRE DEPT.
5. "FIRE LANE NO PARKING" SIGN

GENERAL NOTES

1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH TOWN OF VICTOR DESIGN & CONSTRUCTION STANDARDS
2. NUMBER OF EMPLOYEES: CURRENT - 16 / ANTICIPATED - 30

SITE DATA – TOWN OF VICTOR

	REQUIRED	PROVIDED
ZONING	LIND	LIND
SITE ACREAGE	N/A	4.5 AC.
MAXIMUM BUILDING HEIGHT	35' MAX.	23.33'
BUILDING SETBACKS		
FRONT (25.0	100'	133.86'
FRONT (OLD DUTCH)	80'	85.00'
SIDE (WEST)	25.00'	431.80'
REAR (NORTH)	60'	N/A
SIGHT DISTANCE (N&S DRIVE)		

PARKING REQUIREMENTS	REQUIRED	PROVIDED
OFFICE	53	25
WAREHOUSE	5	5
"BANKED SPACES"	N/A	16
SPACE SIZE	9X18	9X18
ACCESSIBLE SPACES	2	2
TOTALS	60	48

DISTURBED AREA = 3.5± ACRES
GREENSPACE AREA = 1.62 ACRES

Centerpointe Business Park
Williamsville, NY

- Complete Stormwater Retention System

  - Network of ditches & swales direct stormwater to catch basins

  - Water travels through subsurface pipe to ponds 1 & 2

  - At capacity Pond 2 flows to connect to municipal stormwater system

  - Evaporation & absorption into soil occurs through system

  - Absorption provides groundwater used in geothermal system

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POND 2
POND 1