

Co-designing Multifunctional Landscapes

Water Quality and Inequality Water@Mich 2018 Lightning Talk

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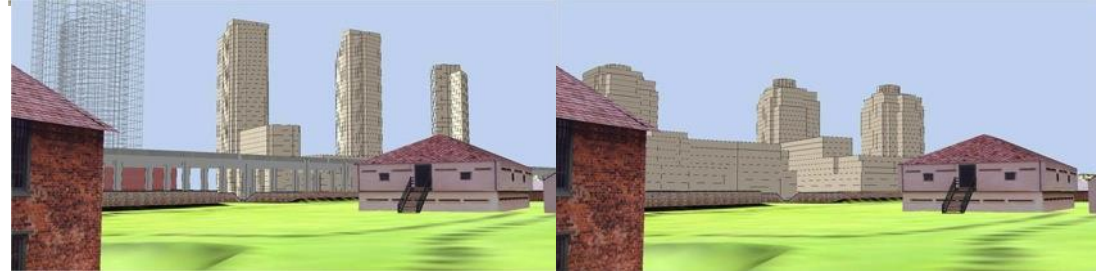
Who am I?



Roof Gardens & Parking Lot Bio-swales



Storm Water Retention Pond



Why I do what I do



Midtown Detroit Inc. Green Alley Project <https://www.patronicity.com/project/greenalley#!/>



Water Quality and Inequality

What is one or more specific area of the subtheme I am interested in exploring?

Recognizing knowledge within the community

Capacity building that leverages community expertise

Equitable, transparent partnerships

Co-designing multifunctional landscapes

U3D-DSS: A Novel Decision Support System for Community Led Green Infrastructure Design

Mark Lindquist, Victoria Campbell-Arvai, Frank Deaton, Shannon Sylte, Evan Granito, Shruti Soni, Alec Foster



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Tree placement



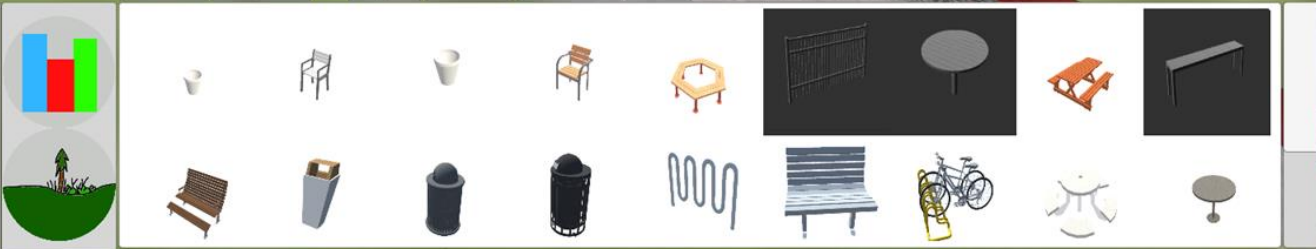
Questions/discussion.....





Objects	Vegetation	▲	Name	Supplier	Cost
		▼			

Screenshot - C





Current Population: 5

Parameters

1550
lbs/yr
Air Quality

11445
gal/yr
Stormwater

\$110
Stormwater Savings

\$180 Cost

Total Of Each Parameter

Tree Species

Sugar Maple	American Elm	Silky Dogwood	American Hazelnut	Norway Spruce	Paper Birch	Eastern Cottonwood
0	5	0	0	0	0	0

Number of Trees

Number of Trees

Age

Mature Tree

Seasons

Winter

Sunlight -
20.6564



To Gray and
E. Forest

To Philip and
Chandler Park

Sunlight -
14.43859

Chalmers

Screenshot - C



Forest Ave

To Gray and
E. Forest

To Philip and
Chandler Park

Sunlight - 24
Chalmers

Screenshot - C



E. Forest Ave

To Gray and
E. Forest

To Philip and
Chandler Park

Sunlight - 24

Chalmers

Screenshot - C

Next steps

- Further testing and evaluation with the stakeholder groups for user experience and decision making
- Expand metrics and functionality based on different stakeholders (e.g. Engineers, Landscape Architects) and projects (e.g. Solar, Highway sound barriers)
- Interaction/gaming youth engagement in community design