Participatory modeling for stormwater planning and economic development

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Calumet Stormwater Collaborative
October 5, 2018
Starting point

• Fundamental questions about:
  – Problem definition
    • Flooding as an issue
    • Links to economic development (incinerator, quarry)
  – Ways to address problem
    • Separate wish lists
    • Unclear framework
  – Details about project
    • Partners
    • What will be funded
    • Acronyms!

Wish lists:
• Large banquet hall
• Outdoor wedding area
• Hiking trails
• Gateway
• Veterans memorial
• Amphitheater
• Nature center
• Lots of lighting
• Guard house
• Football arena
Participatory modeling workshops

- January 11  RainReady Robbins
- February 10  Lake Katherine
- March 10  Robbins Community Center
- June 6  Kellar Middle School
- July 14  Turner Elementary School
Causal Loop Diagrams

Focus Areas

- Happiness
- Health
- Safety
Tax Base and Revenue

Key

- **Issue**
- Blue arrow: Direct relationship
- Red arrow: Inverse relationship
Reinforcing the Economy

[Diagram with various nodes and connections indicating relationships between different aspects such as "Out-of-Towners Spending Money in Robbins", "Number of Residents/Housing", "Number of Businesses/Jobs", "Access to Jobs", "Education/Schools", "Tax Base/Revenue", "Grants/External Funding", "Park Amenities", "Village Services", "Activities for School-age Residents", "Sewer/Stormwater Park Maintenance", "Happiness/Pride in Robbins", "Health", and "Safety".]

Key:
- **Issue**
- Blue arrow: Direct relationship
- Red arrow: Inverse relationship
Village Services
Happiness, Health, and Safety

Key

- **Issue**
- Direct relationship
- Inverse relationship
Mapping
A. Facility
B. Amphitheater
C. Nature Center
D. Restroom Facility
E. Heritage
F. Waterfall
G. Playground
Design activity
Pre-workshop Homework (collage)
Pre-workshop Homework (written)

---Preparing for the Designing Robbins Workshop---

Instructions: This homework has two parts, a set of written questions and a collage. You do not have to do these in a particular order; you can start on either section, and you can go back and forth as you work.

Written response: Please complete this simple assignment about the kinds of park you would like to have where you live. Consider each question and answer thoughtfully; there are no right or wrong answers.

Complete by Friday, May 25 and give to Assistant Principal Cohen.

1. "When's and why's. In three sentences or less, explain when and why you usually visit a park.

<table>
<thead>
<tr>
<th>WEEKDAY</th>
<th>WEEKEND</th>
</tr>
</thead>
<tbody>
<tr>
<td>I only go to the park to play basketball. Also I like to ride my bike.</td>
<td>I would like to go to the park for a picnic.</td>
</tr>
</tbody>
</table>

2. Thinking about favorites. Think about parks you have visited. Which park was your favorite, and why? What kinds of things did you do there?

   The water park by the school is my favorite because it has a gym, basketball court, and water park games.

3. Make a wish list. If you were designing a park for the Village or City in which you live, what activities would you include in the park? Make a list of all the things (ex. cookout shelters, basketball courts, fishing docks, bicycle paths, etc.) that you want in the park.

<table>
<thead>
<tr>
<th>WISH LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball court, bike paths, pool, trees, swings, water fall</td>
</tr>
</tbody>
</table>

4. Describe time spent in your park. Tell us what you would do in your park, both in warm and cold weather. What would you do on a weekday in your park? What would you do on a weekend?

<table>
<thead>
<tr>
<th>WARM WEATHER</th>
<th>COLD WEATHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will ride my bike or I would walk. Also I would play basketball.</td>
<td>We play snowball fights.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WISH LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the weekend we will have a full game of basketball. We will race on bikes. Also we will play football or take my kids boating to the park.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WISH LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Or I just play my game.</td>
</tr>
</tbody>
</table>

5. Tell us of any concerns. Are there any obstacles that might prevent you from enjoying the park (ex. not on your bus route, too far from home, your parents worry, etc.)? How could these be fixed?

<table>
<thead>
<tr>
<th>PROBLEMS</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. If it be too far away.</td>
<td></td>
</tr>
</tbody>
</table>

   |

   [Add additional pages, if necessary.]
Structured Facilitation
Measures of Impact
Systems view
Updated Design

A. Multi-Purpose Facility
B. Waterfall
C. Nature Center
D. Restroom Facility
E. Heritage
F. Amphitheater
G. Playground
H. Sledding/Climbing Hill
I. Picnic Area/BBQ
J. Overlook Area
K. Dirt Bike Track*
L. Sport Fields
M. Swimming Pool*

*cannot be accommodated in park
Understanding the project, partners, and funding

- Formation of steering committee
- Collective wish list/goals
- More nuanced discussion, identification of barriers and opportunities, and innovation towards implementation
- Agreement on pathways forward
Understanding connections

Linkages

- What is affected by flooding?
- What affects the village budget?
- What does the village budget support?

Facilitated discussion about how to support desired outcomes

- Generating long-term revenue
- Engaging youth
- The role of safety
Understanding tradeoffs

Spatial
- Siting: Space for parking, stormwater storage capacity
- Access and entrance locations
- Links to TOD and Industrial District

Financial
- Prioritization of amenities by revenue potential
- Ways to attract outside money
- Flexible sizing and function of amenities
Developing agency

• Ownership of planning tools
  – We made this diagram, we know how to draw it, let’s do it again.
  – This is our facilitator
  – This is our planner

• Advocacy
  – Engaged residents answer fundamental questions of newer participants

• Self-reliance
  – Identifying local resources (people and funding)
  – From demanding to owning
Developing pathways toward implementation

• Prioritization of strategies by short-, medium- and long-term

• Innovative local approaches with multiple impacts
  – BBQ Areas and Playgrounds = “eyes on the park” until more formal security measures can be implemented
  – Community garden next to site of future Nature Center; begin to establish and formalize programming
  – Leveraging local resources for construction of park elements (e.g., ice skating rink, BBQ shelters, playground installation)

• Identification of high-priority elements which need external funding (i.e., restroom facilities, security features)
Main Takeaways
Lessons learned: Scaffolding

• Relationship building and collaborative design:
  – with, rather than for (all ages and backgrounds)
  – getting something out of each activity
  – continuous adaptation

• Systems thinking and innovation: tradeoffs and self reliance
  – CLD
  – Mapping
  – Art!
  – Structured facilitation, focusing on needs

• Ownership and building social capital
Thank you!
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Funded by the Searle Funds at The Chicago Community Trust