Overview of the Kinnickinnic River Flood Management and Stream Rehabilitation Project

“Kinnickinnic River Property Acquisition Deconstruction Process”

IAFSM 2011 Annual Conference
Bloomington Normal Illinois

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Objectives:
Reduce Flood Risk
Improve Public Safety
Stream Channel Rehabilitation
Kinnickinnic River Watershed
Was voted one of the top ten worst rivers in North America in 2007
Historical Background

• At least five drowning or near drowning incidents most recent 1994, 2000 and 2008 (6th Street -16th Street)
• 1990 SEWRPC Planning report include KK River
• District Phase I and II Watercourse Management Plans completed 2000 and 2005
• Updated flood flows indicate 330 properties at risk of flooding
• KK River revised to focus on flood risk reduction
Lost Wetlands

Kinnickinnic River

Year 1836
Vs
Year 2009
(Increased Stream Chanel Miles)

Slide Courtesy of Tom Slawski
KK River Historic Channel Before Concrete Channel (channelization already evident)
KK River Flooding March 1960 (12th Street)
KK River @ 6th Street After Concrete

CONCRETE SUCKS
Concrete Channel Encouraged Development in the Floodplain
Current Project Background

- KK Watercourse Plan updated in October 2009
- Reduce flood risk for ~328 properties
- Improves public safety
- Includes acquiring 83 structures
  - Between S. 6th and S. 16th
KK Flood Management Project

- Involve Stakeholders and Political Officials (need a champion)
- Project will remove 12,000 linear feet of concrete channel liner
- 85 – 100 Property (structure) Acquisitions (voluntary)
- Neighborhood Plan (to offset Property Tax Loss)
- Deconstruction (of acquired structures) Project
- Sediment transport and Geomorphology Study
- Typical Design and Construction Phase
KK River Channel Alternatives 6th-16th Street

Stone Channel & Vegetated Overbanks Without Walls

Low Flow Channel & Vegetated Overbanks With Walls
Potential Bioengineered Channel Conceptual Cross Sections
Bioengineered Channel Conceptual Drawing
9th Street to 13th Street
Actual Projects “Really Improved” Channels
Acquisition

- Public Meetings to sell acquisition
- Process to declare public necessity
- Tax loss (flooding was causing neighborhood decline)
- Appraisals done (not in floodplain)
- Met with each property owner
- Benefits (moving expenses, legal help, ect....)
- Relocation Plan (approved by state for each structure)
Deconstruction Project Objectives

• Deconstruct 84 structures
• Job training and placement opportunities for local work force
• Minimize environmental impact of salvage and deconstruction
• Develop outreach and communication strategy
• Evaluate lessons learned
Salvage and Deconstruction

• Did not choose standard demolition
• Deconstruction Project Manager
• Deconstruction Management Plan (85% by weight)
• Structure Environmental Inspection (Pre-Deconstruction)
• Sustainability vs. Cost
• Increased labor costs (creates jobs)
• Timing (increases time of structure removal)
Deconstruction and Demolition

Salvage, Reuse, and Recycle
Deconstruction Process

Sections of the house are removed. Reusable wood is separated.
De-Nailing Wood
Reuse

Bricks and stone can be reused or recycled
Reusable materials go to reuse – usually local reuse store
Materials not reusable, but recyclable, are then recycled.
Not typically reusable or recyclable from deconstruction or demolition:
Deconstruction Provides Local Jobs & Training
Deconstruction crews learn skills marketable in building trades
Due to additional labor, there’s an estimated $7,000 - $10,000 cost premium over demolition per house for the homes along the Kinnickinnic River.
Deconstruction: Careful disassembly of materials takes more time than demolition.
Local Jobs: processing and sales of reusable and recyclable Items
Deconstruction: Affordable materials for nonprofits and low-income individuals made available
Deconstruction: Preserves natural resources
Deconstruction: Does not eliminate the need for demolition – demolition contractors work in cooperation with deconstruction contractors.
Deconstruction -
Maximizing Jobs, Minimizing Waste
Questions?