FarmWorks
People don’t just live in homes, they live in communities. That’s why LoftWorks is the pioneering force behind rebuilding historic areas in downtown St. Louis, breathing new life into old communities. LoftWorks gives people places to reside, shop, and work...to “live well” and “live urban”.
FarmWorks site

Located just north of downtown St. Louis, the historic 120,000 square foot Stamping Building complex will house the initial 4-acre urban development at 1st and Cass Ave.
urban agriculture: a growing trend

Farmers’ markets have risen in popularity

Increasing number of Americans embrace a vegetarian lifestyle

More individuals are describing themselves as “locavores”: those who only consume food that is grown locally

Emergence of organizations and movements such as Slow Food and Buy Local
case study: Growing Power
Milwaukee, WI

Growing Power began in 1993 as a partnership between a farmer and a job program for teens.

With 20,000 plants and vegetables, and thousands of fish, animals, and bees in its main food center, Growing Power is now a model of successful urban farming.

Composts more than 6 million pounds of food per year.

Recipient of grants such as $500,000 “Genius Grant” (John D. and Catherine T. MacArthur Foundation) and $400,000 (W.K. Kellogg Foundation).
case study:
Sweet Water Organics
Milwaukee, WI

In 2008, Sweet Water Organics began the transformation of an abandoned industrial building into a showcase of living technologies, urban agriculture, use of urban settings, and a resource for job creation.

Sells 150 pounds of greens per week

Expects to be raising 300,000 perch and employing 20 workers by the end of 2010 (and to double those figures in 2011)
New Model

Year-round, for-profit, growing operations selling to restaurants and grocery stores.
why urban agriculture?

Economic:
- Local food source: no transportation costs
- No processing costs
- Eco-tourism opportunities
- Job creation
- Adds value to property
- Encouragement for green business development

Social:
- Access to healthy foods in food deserts
- Job training
- Education
- Connects community with food source

Environmental:
- Closed-loop, self-sustaining system
- Local food eliminates environmental impact of industrial food transportation
- No use of pesticides or fertilizers
"As we re-examine how we build our cities ... it is critical that we simultaneously address the question of how and where we grow food and reconnect civilization with the very thing that started it—agriculture."

Jason F. McClennan
Author of The Philosophy of Sustainable Design
and CEO, Cascadia Region Green Building Council
the next level:
FarmWorks
St. Louis, Missouri

FarmWorks implements a radical re-utilization of former industrial sites into intensive urban agriculture centers in downtown St. Louis.
Aquaponics is a form of closed-system agriculture combining water-based gardening (hydroponics) and fish cultivation (aquaculture).

<table>
<thead>
<tr>
<th>Traditional Farming</th>
<th>Aquaponics</th>
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<tbody>
<tr>
<td>high water use</td>
<td>80 - 90% less water needed</td>
</tr>
<tr>
<td>low produce yield</td>
<td>10 - 45 times higher produce yield</td>
</tr>
<tr>
<td>negative effects on water and air quality</td>
<td>no toxins used</td>
</tr>
<tr>
<td>largest contributor of 2 greenhouse gases in U.S.</td>
<td>no greenhouse gas emissions</td>
</tr>
<tr>
<td>primary cause of soil depletion</td>
<td>no soil damage</td>
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Hydroponics:

Method of growing plants using mineral nutrient solutions, in water, without soil.

* 80% less water
* 50% less fertilizer
* 40% less land
vermiculture & composting

Vermiculture is the raising and production of earthworms and their byproducts for use in composting.

In addition to composting its own waste, FarmWorks will partner with restaurants in downtown St. Louis to turn their food waste into compost.
FarmWorks partner: St. Patrick Center

FarmWorks will provide 56 transitional housing units, 40 for ex-offenders.
- On-site counseling services
- Education
- Job training

Founded in 1983, St. Patrick Center is a national model for best practices and has been recognized for its innovation and successful outcomes. As Missouri’s largest provider of homeless services, they:
- Have helped lead more than 132,000 homeless and poor to lives of self-sufficiency
- Have 28 housing, employment, and mental health programs
- Assist more than 9,000 individuals and their families annually
green business incubator

FarmWorks will provide shared services and low cost space for offices and light manufacturing to green businesses.

The incubator will focus on the distribution and processing of locally grown foods.
Anaerobic Digester

Biogas is produced through fermentation, or the digestion of organic materials without air or oxygen. The digestion process utilizes a combination of anaerobic bacteria. Methane is the main source of energy produced by the fermentation process. A high quality organic fertilizer is also produced.

The FarmWorks digester will produce 2,000,000 kilowatt hours each year.
FarmWorks partner: Nature's Methane

Nature's Methane is part of Star Distributed, a renewable energy company. The Markle, Indiana company provides digester solutions for dairy farmers across the Midwest.

Nature's Methane will design, build and operate the anaerobic digester at FarmWorks.
CNG fueling station

Compressed natural gas fueling station to be located at N. Broadway and Howard Street. CNG is a lower cost option than gasoline and has dramatically lower emissions.
FarmWorks will conduct educational programs for school groups in the areas of farming, healthy food choices, and sustainability.
“It’s beyond a movement at this point. It’s more like a revolution.”

-Will Allen, Growing Power