Background

The Chicago Food Depository reports nearly 678,000 people each year rely on emergency and supplemental food provided by the Food Depository and its member network of 650 food pantries, soup kitchens and shelters. That figure represents a 36 percent increase from 2006 and reflects the recession and accompanying rising unemployment rates. Each week, the Food Depository and its member agencies serve 142,400 men, women and children.

- About 37 percent of the people the Food Depository serves are children under 18
- Six percent of clients are homeless
- 34 percent of households include at least one employed adult
- 22 percent of households report their main source of income is from a job
- 10 percent own the place where they live
- 47 percent of households say they have to choose between paying for food and utilities
- 44 percent report choosing between paying for food and rent or mortgage
- 28 percent of clients say they have to choose between food and paying for medicine or healthcare

Problem

Most of the existing large scale urban food depositories/pantries are based on a model of food production and distribution which has not changed in the last forty years.

This has resulted in inefficient food acquisition for the existing pantries and the evolution of food deserts in areas around Chicago. This model is unsustainable and does not effectively serve the needs of the hungry in Chicago.

Moving forward requires rethinking and a global redesign in the areas of food production techniques and facility locations, as well as more innovative, mobile, and finer-grained distribution strategies.

Objective

- Make food more accessible to the hungry
- Create sustainable urban farms
- Maximize efficiency by leveraging system overlap and delivery methods between systems

Approach

IPRO 315 worked together to create a distribution system that combines urban farming and leveraging existing rail, water, and roadway systems, infrastructure and networks to help efficiently distribute food.

Road Group: Researched food desert demographics and designed concept for food distribution using CTA busses.

River Group: Investigated program spaces and designed concept for food distribution utilizing the Chicago River.
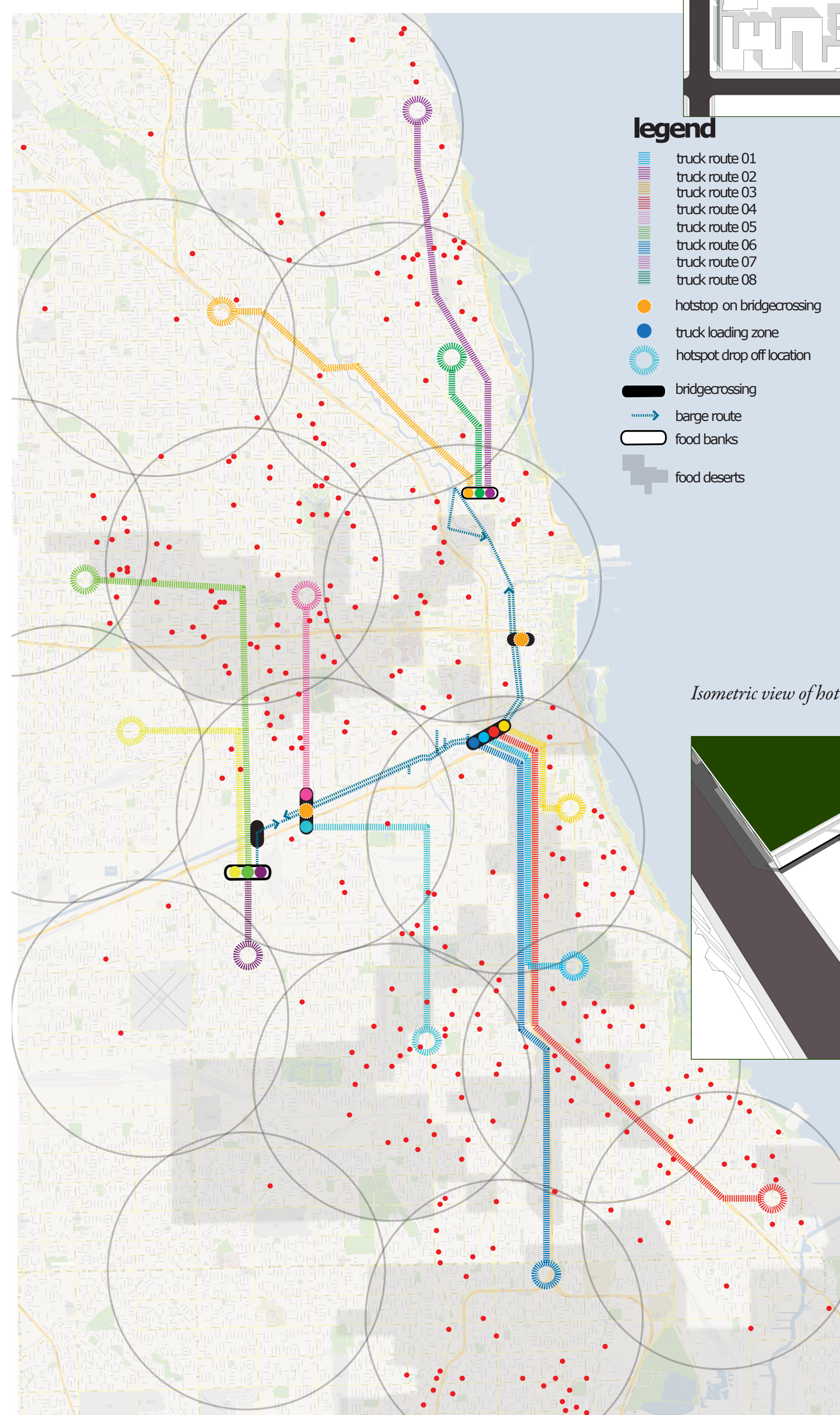
Train Group: Explored urban farming and design concept for food distribution using El trains.
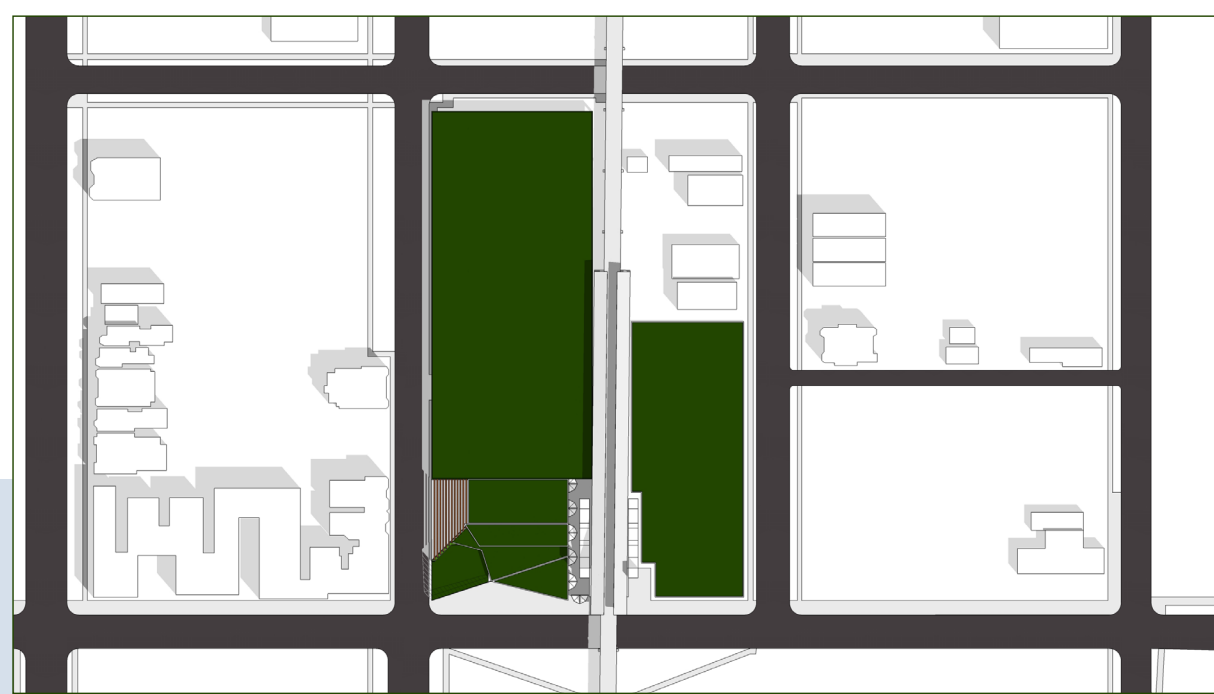
Conclusions

Our team has proposed a model of utilizing multiple existing transportation systems to greatly increase food distribution. Specific hot spots—locations that act as storage and transfer points—were determined by careful analysis of open lots, socioeconomic levels and food desert areas.

- Utilizing barges in the river system is the first step in redesigning the transportation system.
- Each river transfer point connects with the road system and hot spots.
- Delivery trucks supply existing pantries with food and mobile food pantries—recycled CTA busses—deliver goods directly to clients.
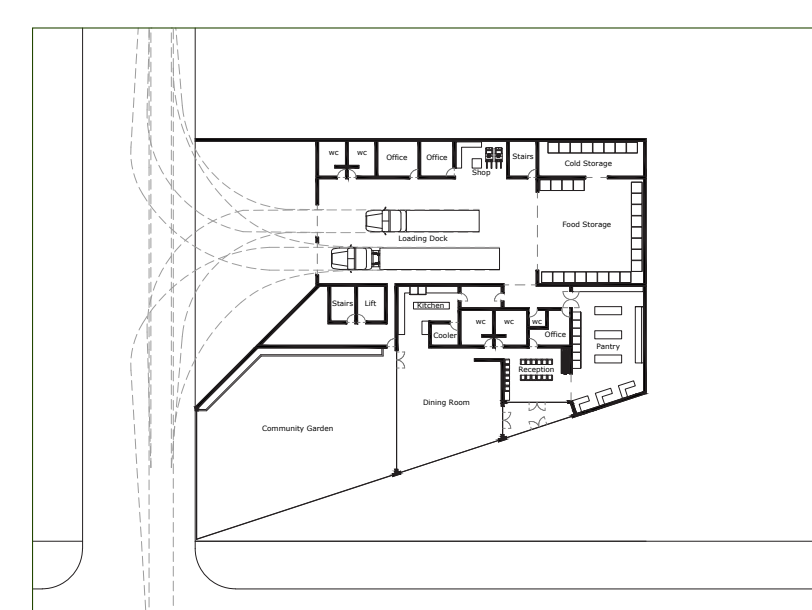
These new distribution methods are more efficient in terms of cost, carbon footprint and convenience to pantries and clients. Integrating urban farming into the new model promotes community development and addresses the need for more fresh produce.

Site plan of hot spot location

legend
- truck route 01
- truck route 02
- truck route 03
- truck route 04
- truck route 05
- truck route 06
- truck route 07
- truck route 08
- hotstop on bridgecrossing
- truck loading zone
- hotspot drop off location
- bridgecrossing
- barge route
- food banks
- food deserts
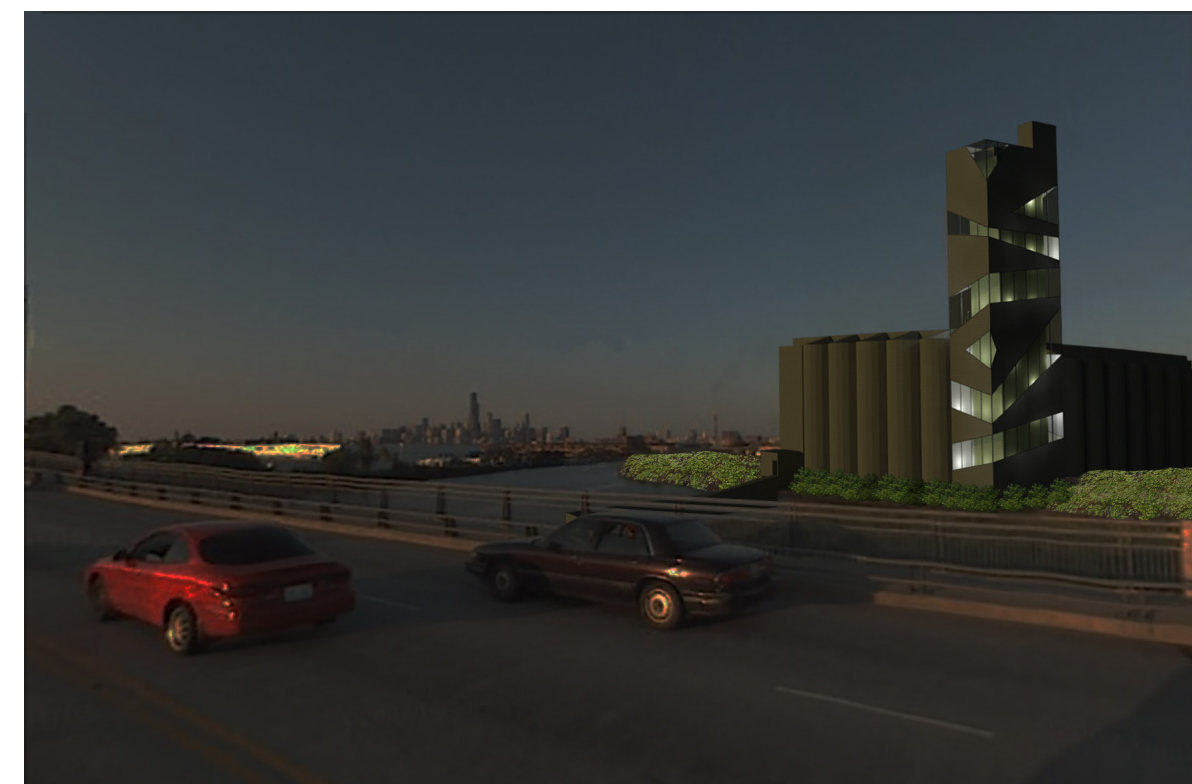

Proposed Hot Spot Program and Floor Plan

Isometric view of hot spot

Current building on river site (before)

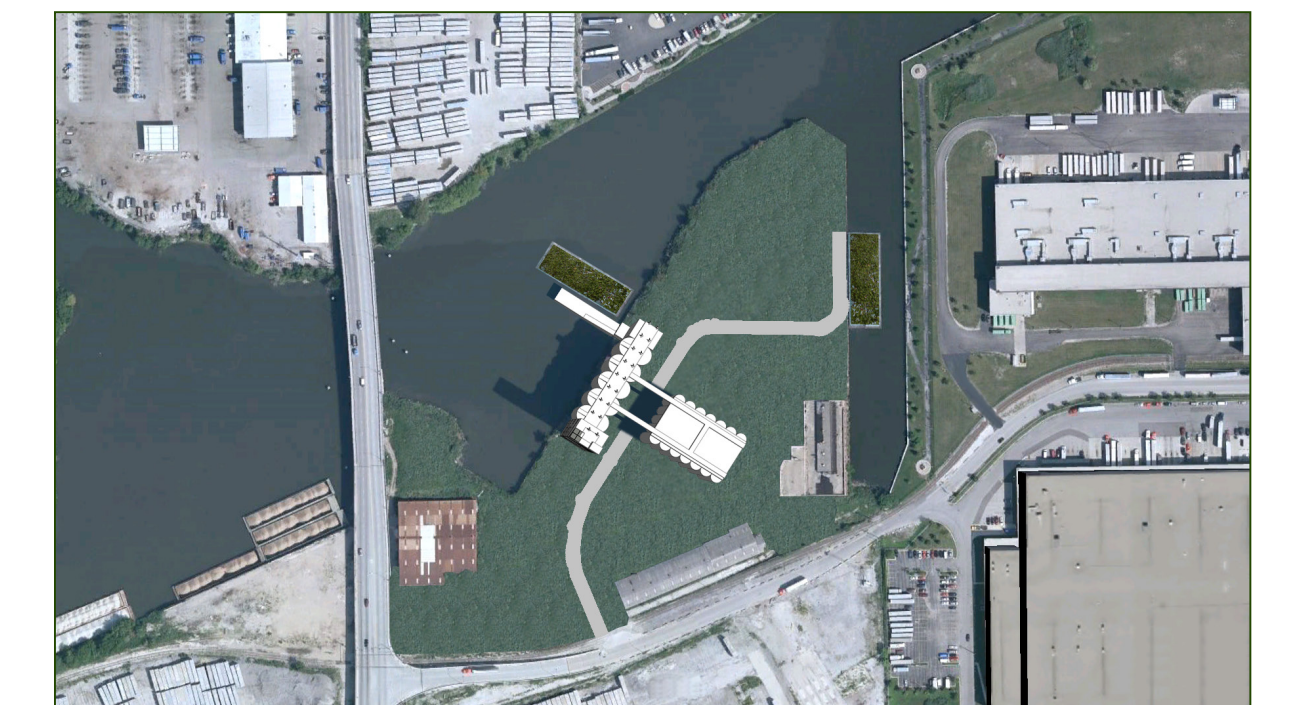*Proposed building on river site - green house production modifications (after)*

View of dining area looking into the garden

Current river site as seen from above (before)

Proposed river site as seen from above (after)

TRANSIT FOODS
TAKING A BITE OUT OF HUNGER