



Nebraska's Natural Resources Districts

www.nrdnet.org

Protecting Lives • Protecting Property • Protecting the Future

601 S. 12th St. Suite 201
Lincoln, NE 68508
www.nrdnet.org
nard@nrdnet.org
(402) 471-7670

February 11, 2014

TO: NRD Managers

FROM: Dean E. Edson, Executive Director

RE: Nebraska State Fair - Nebraska Agricultural Experience Building

Attached is a memo on the request from the Nebraska State Fair for the Nebraska Agricultural Experience Building that we handed out at the January 27th NRD Managers Meeting and the January 29th NARD Board Meeting.

So far, the group has raised \$1.5 million of the \$5.5 million goal. The plans are to have the building open by August 14, 2014.

The request is for a \$25,000 contribution from the NARD Foundation.

The NARD Board voted 21-1-1 to move forward with the project. The motion was to ask each district to consider contributing \$1,000 to the NARD Foundation for the project. The NARD Foundation will add \$2,000 above the local district contributions.

When your district has approved of the contribution, please make the check out to the NARD Foundation.

In advance, thanks.

If you have any questions, please ask.



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January 24, 2014

TO: NARD Board & NRD Managers
FROM: Dean E. Edson, Executive
RE: Nebraska State Fair

Attached are the latest documents I have about the Nebraska Agricultural Experience Building at the Nebraska State Fair. As you recall, we have discussed this at past meetings and will bring up the issue to the NARD Board at the January 29, 2014 meeting.

So far, the group has raised \$1.5 million of the \$5.5 million goal. The plans are to have the building open by August 14, 2014.

The request is for a \$25,000 contribution from the NARD Foundation.

As we discussed, the NARD Foundation cannot afford that much in one year. One way to do this would be to have each district contribute \$1,000 and the NARD Foundation contributes \$2,000.

If you have any questions, please ask.

Nebraska Agriculture Experience

Draft Overview 1-21-2114

Overarching Goals:

- Elevate profile and importance of agriculture in Nebraska
- Expand visitors' definition of agriculture/food systems
- Focus on what's next rather than where we've been
- Improve agricultural literacy among consumers—addressing their concerns
- Communicate career possibilities to youth

Audiences: Two different audiences for two very different operating scenarios

- **Nebraska State Fair**
 - Families with children (urban and rural) expecting an entertaining and informational experience
 - Adult consumers looking for information, expecting interesting information
- **School Year**
 - School groups, grades K-12 with curriculum connections to science and humanities
 - Other organized groups (youth to adults) including trade team visits and agricultural business events

Potential Messages

Making Choices: In today's various *food production systems*, producers and consumers are making choices informed by:

- Scientific research and best-management practices
- Emotional connections to livelihood and natural resources (the land)
- Information about health and nutrition
- Others?

Family Farmers and Ranchers: Nebraska farmers and ranchers—working in a diverse range of food and bio-based production systems—are invested and committed. With humility and compassion they are committed to:

- Helping feed the world—their families and ours
- Supporting rural communities
- Maintaining a safe and abundant food supply
- Adapting to new technologies to increase productivity and preserve resources

Producing More with Less: People working in all areas of food production are meeting an increasing demand with limited and variable resources. As connected individuals, companies, organizations, food producers are building resilient systems in crop production, irrigation, animal agriculture, bio-based [etc.] through:

- Scientific innovations
- Stewardship practices (preserving natural resources)
- New technologies and advances in research (efficiency)

POTENTIAL THEMATIC AREAS

A. WATER: Growing More with Less

Key feature: Pivot span installed from northeast to southwest corner in building

Subjects and Topics

- Variable rate irrigation
- How a pivot system works
- Soil moisture monitoring
- Crop transpiration
- Relationship between groundwater & surface water
- Connection between groundwater & drinking water
- Balancing agricultural and domestic use
- Applying chemicals/fertilizer through pivot systems
- Drought management
- State Irrigation Network
- Subsoil Irrigation Systems
- Livestock use of water/Runoff/Lagoons
- Use of buffer strips in crop production

Visitor Experience Objectives:

- Feel impact/pattern of different pivot nozzles (hands in a box with nozzles?)
- Overlay maps for variable rate irrigation
- Map of rainfall and elevation differences in the state

B. AUTOMATION: Technology Provides Speed and Efficiency

Key Features: Virtual combine driving experience and the Grain Bin Theatre

Subjects and Topics:

- Managing in ever-smaller increments provides big results
- How satellite/gps/mapping works and why it's important
- How does a combine know the difference between the grain and the other stuff?
- What is RTK? (Laser model of signals from towers?)
- Demonstrate how farmers can manage down to sub-inch areas

Visitor Experience Objectives:

- Drive a virtual combine during corn harvest with three screens (front and side views)
- Watch yield monitor operate during "harvest" while sitting in the "cab"
- Control the spray/planting rate by touching screens

C. CROPS: Nature and Research in the Same Field

Key Features:

Subjects and Topics:

- Growing more with less water/fertilizer/energy/environmental impact
- Soil health and management
- GMOs/Biotechnology
- Environmentally sound production/management practices (no-till, etc.)
- Crops people eat vs. crops livestock eat
- Natural resources stewardship (soil, water, wildlife habitat, etc.)

Visitor Experience Objectives:

- Interact with wind erosion (Acolian Landscape exhibit); compare tilled vs. no-till management practices
- Weigh yourself compared to various commodities (bushel of corn, etc.).
- Identify genes that have specific characteristics in corn, soybeans, etc.
- Walk through the root system of a corn plant
- Interact with video projections of grain, rain, soil

ANIMALS: Producing Food for People

Key Feature:

Subjects and Topics:

- Some animals are raised for food
- Breadth of animal ag in Nebraska (incl. non-confinement, natural, etc.)
- Technology & innovation in animal agriculture
- Manure management
- Odor footprint
- Nebraska leadership (Flat Iron steak, McRib, etc.)
- Distillers grains
- Animal health, care & welfare (gestation crates?)
- Food safety

Visitor Experience Objectives:

- Smell bacon cooking
- Match the protein to the animal source (meats, dairy, eggs, etc.)
- Touch the hide of various animals
- Match the number of offspring to the species

BIOECONOMY: It's More than Food

Key Feature: Structure built entirely of biobased materials; visitors identify the agricultural sources

Subjects and Topics:

- Biobased products replacing petroleum based products
- Flex Fuel Vehicles
- How a biofuels plant makes fuel, feed and food
- Biofuels (ethanol/biodiesel) and their benefits
- Nutraceuticals
- Energy crops

Visitor Experience Objectives:

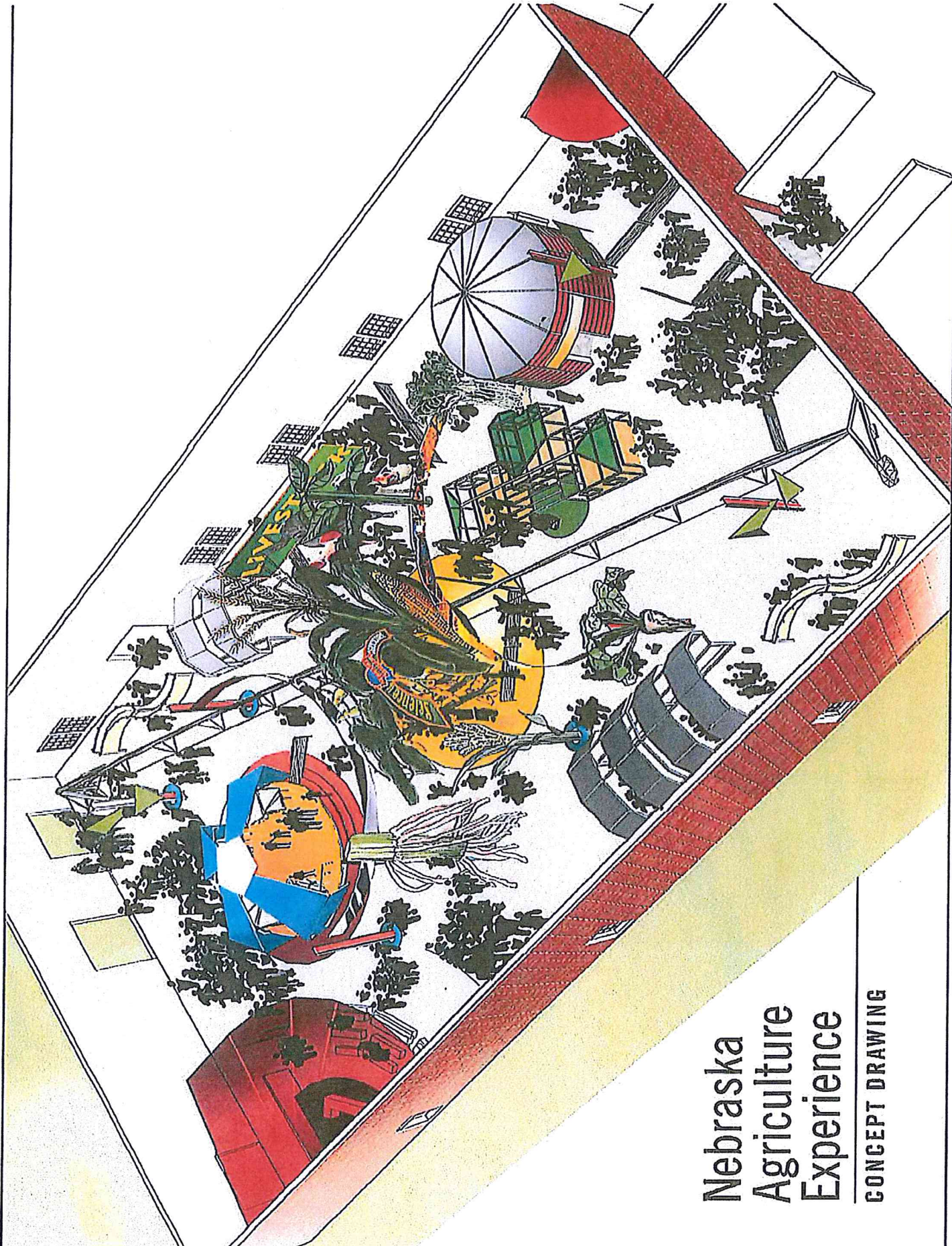
- Identify what's made from biobased products
- Receive bioplastic/PLA cups

NEBRASKA AGRICULTURE: It's Big and Far Reaching

Key Feature:

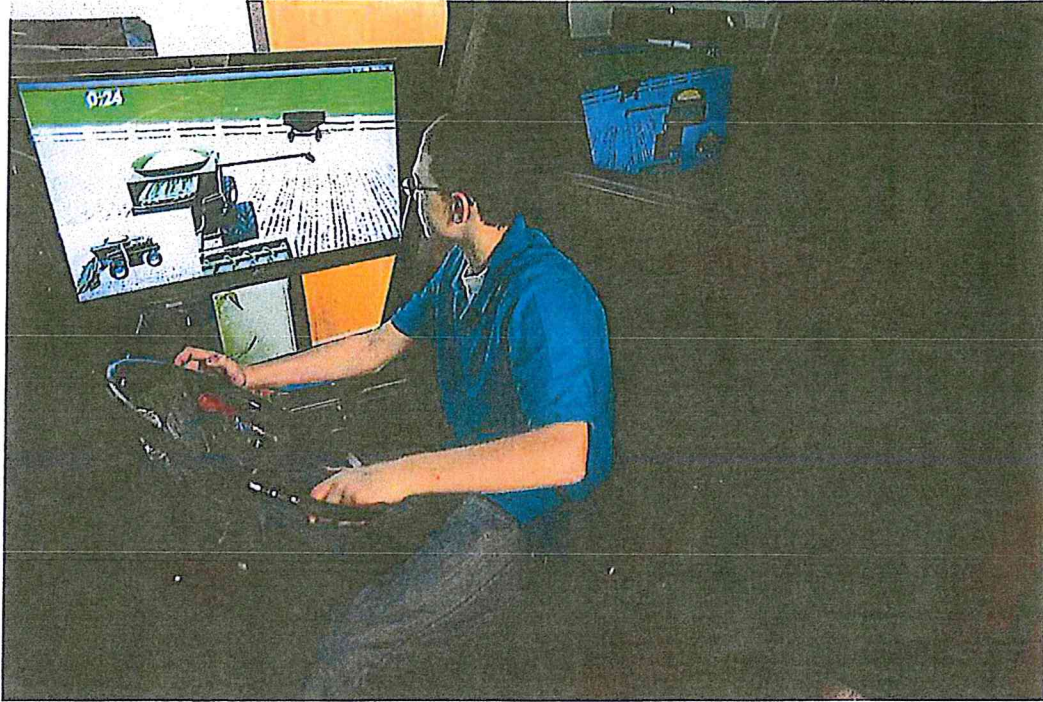
Subjects and Topics:

- Nebraska agriculture is bigger than you may have realized (show diversity of agricultural products/services)
- Global impact of Nebraska agriculture (exports)
- Nebraska's national/global leadership in agriculture
- Impact of agriculture on your daily life
- Role of check off programs?
- Range of career opportunities in agriculture
- Need to acknowledge all types of agriculture including
 - Large-scale production ag (crops and livestock)
 - Small-scale agriculture
 - Specialty crops/livestock
 - Organic/natural
 - Local foods
 - Role of processed foods
- Nebraska agricultural exports (domestically and internationally)



Nebraska Agriculture Experience

CONCEPT DRAWING

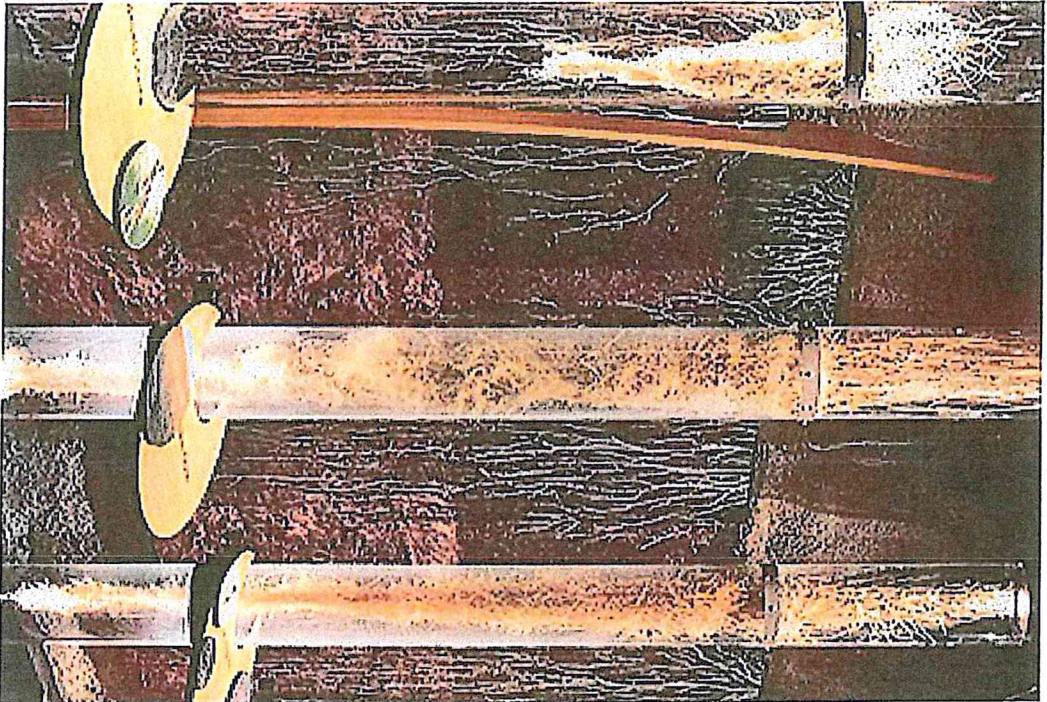


STATE FAIR BUILDING

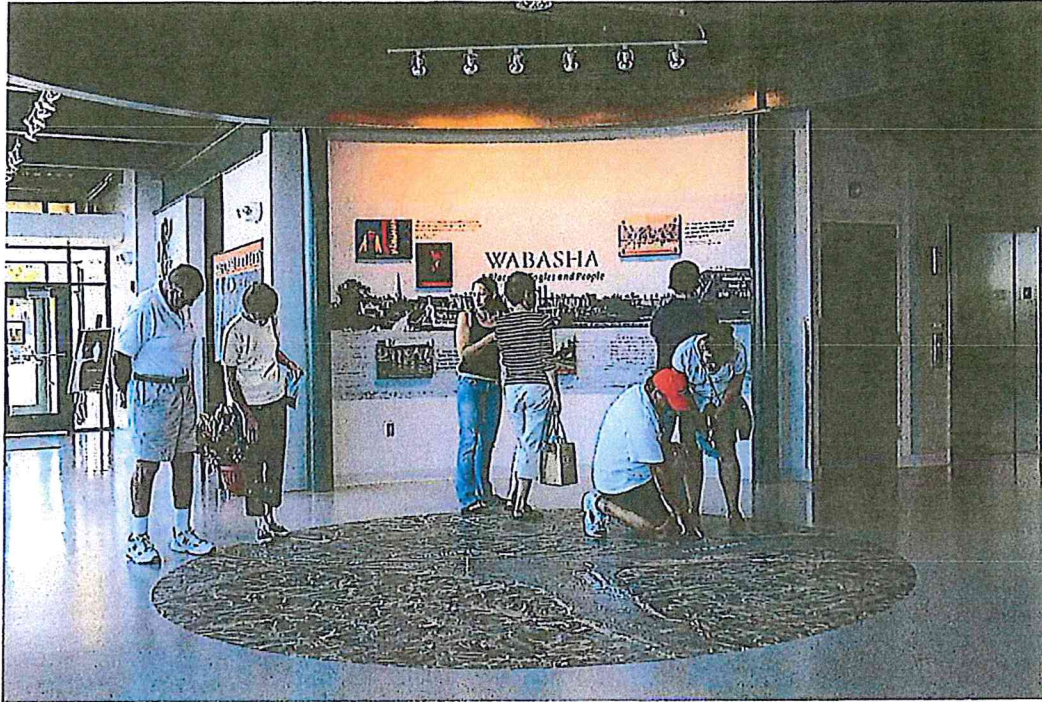
Example : Combine & Harvest simulation

STATE FARM BUILDING

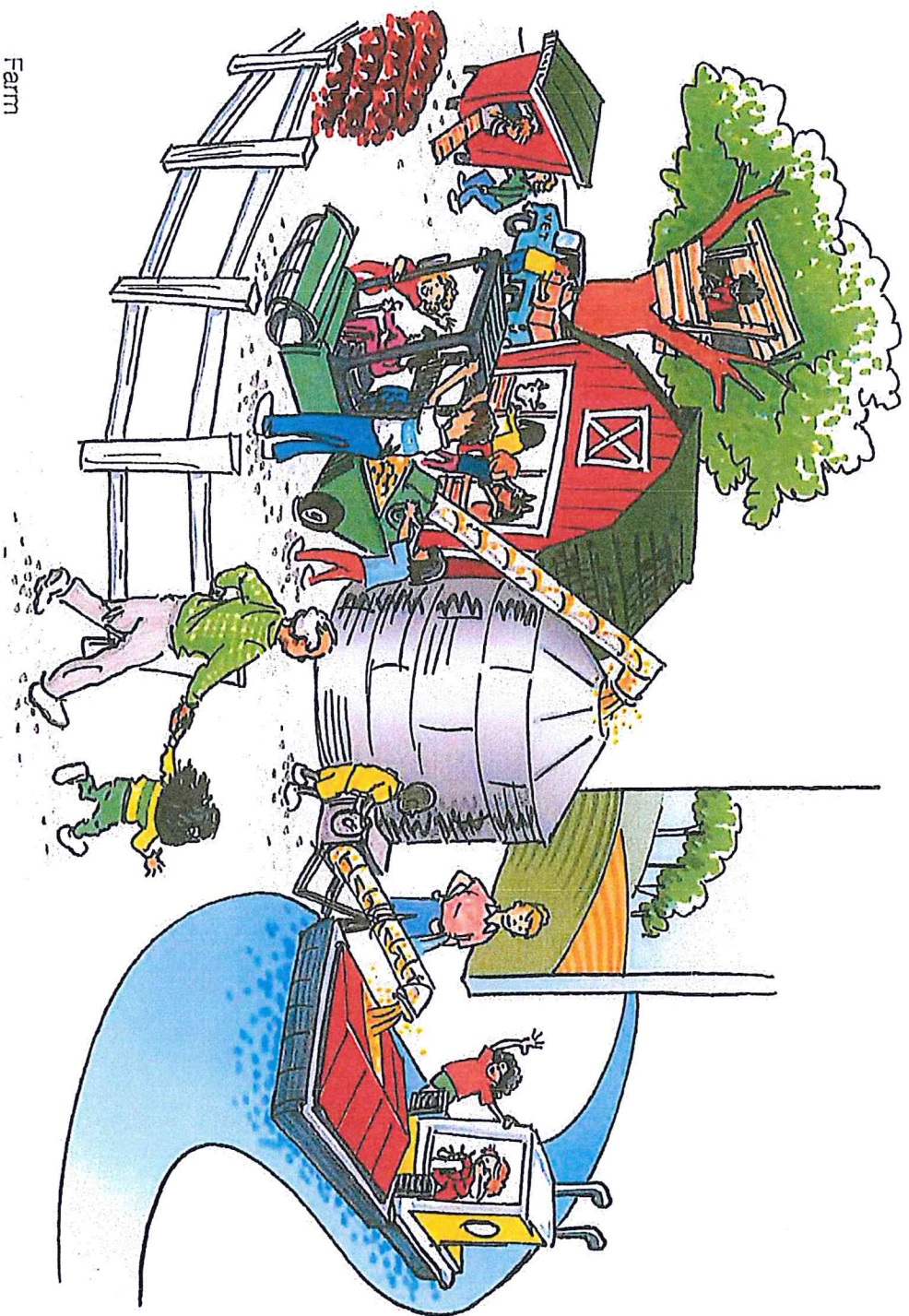
Example: 2012 Exhibit of Geop Doors



STATE FAIR BUILDING



Example: Floor graphic of a river



Farm

STATE FAIR BUILDING

kidZibits

Example: Artist rendering of "Farm to Market"