

**Michigan State University
School of Planning, Design & Construction
Urban Planning Practicum**

Food Innovation Districts

*A Land Use Tool for Communities
Seeking to Create and Expand a Regional
Food Industry*

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Acronyms

For referencing convenience, below is a list of frequently mentioned acronyms used in this report:

- APA - American Planning Association
- APRZ - Agricultural Processing Renaissance Zones
- BRA - Brownfield Redevelopment Authority
- CSA - Community Supported Agriculture
- DDA - Downtown Development Authority
- DUFB - Double Up Food Bucks
- EBT - Electronic Benefit Transfer
- EDC - Economic Development Corporation
- FID - Food Innovation District
- FNS - Food and Nutrition Service
- GAAMP - Generally Accepted Agricultural Management Practice
- LEDC - Lansing Economic Development Authority
- LDFA - Local Development Financing Authority
- MAP - Michigan Association of Planning
- MBT - Michigan Business Tax
- MCL - Michigan Codified Law
- MEDC - Michigan Economic Development Corporation
- MMS – Michigan Main Street
- MMSP - Michigan Main Street Program
- MSHDA - Michigan State Housing Development Authority
- MSU - Michigan State University
- NWMCOG - Northwest Michigan Council of Governments
- PUD - Planned Unit Development
- RTFA – Right to Farm Act
- RZ – Renaissance Zone
- SNAP - Supplemental Nutrition Assistance Plan
- TIF - Tax Increment Financing
- TIFA - Tax Increment Financing Authority
- USDA - United States Department of Agriculture
- WIC - Supplemental Nutrition Program for Women Infants and Children

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Executive Summary

As communities strive to localize their economy, food planning is of growing importance. Local and regional food systems affect health, wealth, and quality of life. With food having such an influence over daily life, it is important that it be given adequate attention in the planning field. The Michigan State University (MSU) Practicum Team, in partnership with the Northwest Michigan Council of Governments (NWMCOG), the Michigan State University Center for Regional Food Systems, and Regional Food Solutions LLC, has created this report. This report takes an in-depth look at the development of FIDs as a land use and economic development tool for building regional food system opportunities. The research analyzes best practices for economic development and planning implementation of FIDs statewide in Michigan.

As a crucial element of the report, and for further referencing, the MSU Center for Regional Food Systems has defined an FID as a network composed of diverse, connected, and mixed food-oriented businesses and services. Together, the network promotes a positive environment, spurs economic growth, and increases access to local food.

This report covers the importance of planning for food systems. An emerging concept, the food hub, is discussed and used to introduce a newer concept, the FID. The functions of each food system are explored and the two concepts are compared and contrasted. After both concepts are differentiated, FIDs were examined closely and key characteristics established.

A matrix was created by the MSU Practicum Team. The matrix is designed to serve as a systematic tool for assessing the strengths and weaknesses of a defined study area's FID potential. By using the matrix, a community can identify which FID characteristics are present/not present in its study area. The matrix was applied to several case studies, including Building 58, located in Northern Michigan and thought to be a potential/future FID.

The MSU Practicum Team explored economic strategies for the clustering of food-related businesses. Economic programs, business districts, and incentives were analyzed to assist in finding ways to establish, regulate, and fund FIDs.

An extensive analysis of regulatory and non-regulatory strategies for establishing and controlling FIDs was conducted. Multiple zoning methods are compared and contrasted to assist communities in choosing an appropriate zoning strategy. Additional concepts, such as development standards, master plans, and eco-industrial parks are also discussed. The MSU Practicum Team has created a model overlay to bring attention to important zoning definitions and development standards when planning for FIDs.

The report concludes with future actions to advance FIDs on the local and broader scale.

Chapter 1 – Project Overview

Explanation of Practicum

Practicum is defined by Merriam-Webster’s Dictionary as, “[a] course of study designed especially for the preparation of teachers and clinicians that involves the supervised practical application of previously studied theory” (n.d., Definition of Practice section, para. 1). The MSU practicum course aims to give Urban and Regional Planning seniors hands-on experience in the planning world and the opportunity to apply their academic knowledge to a real-world project. Students are divided into teams; each group with a unique project and client. Upon completion of practicum, students should have acquired a newly-gained confidence in the professional planning field and be better prepared for life after graduation.

Project Information

Together, the Northwest Michigan Council of Governments (NWMCOG), the Michigan State University (MSU) Center for Regional Food Systems, and Regional Food Solutions LLC are constructing a planning and economic development toolkit to be used in communities throughout the state of Michigan. The toolkit will assist in establishing and encouraging FIDs. Through research and analysis of planning approaches and case studies, the MSU Practicum Team is contributing a land-use section to the toolkit. The FID matrix in this report will help communities assess their potential and sustaining FIDs. Case studies analyzed include Building 58 in Northern Michigan. Discussed economic, regulatory, and non-regulatory strategies will guide communities through the creation of an FID. Finally, an FID model overlay provides communities with sample language to be used in the creation of FID ordinances.

Northwest Michigan

Figure 1.1: 10-County NWMCOG Region



Source: Lively, 2011

Where applicable, this project draws upon examples found in the Northwestern Michigan regions overseen by NWMCOG. Included in their jurisdiction are the counties of Antrim, Benzie, Charlevoix, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, and Wexford. NWMCOG projects an increase of nearly 50,000 people in the Northwest Lower Michigan Region by 2035, making the future projected population just under 360,000 people (Forecasts-Northwest-Lower-Michigan, 2008). A growing regional population will require an even larger quantity of accessible food. To meet this need, the region is looking for a sustainable food system that will increase economic viability, community connectivity, and consumer accessibility.

Client Information

Founded in 1973, NWMCOG aims to “[...] build stronger communities and improve quality of life [...]” (para. 2) in the region by “[...] serving units of government, businesses, non-profits, community organizations, and individuals [...]” (NWMCOG, n.d., Mission Statement section, para.1). The council addresses “[...] workforce development; business and economic development; regional planning and community development; [and] community safety” (NWMCOG, n.d.a, Mission Statement section, para 5).

The mission of the MSU Center for Regional Food Systems is “[t]o engage the people of Michigan, the United States and the world in applied research, education and outreach to develop regionally integrated, sustainable food systems” (n.d., Our Mission section, para. 1). Its vision is to create “[a] thriving economy, equity and sustainability for Michigan, the country and the planet through food systems rooted in local regions and centered on food that is healthy, green, fair and affordable” (n.d., Our Vision section, para. 1).

Regional Food Solutions, LLC provides organizations and businesses with project development, writing, research, and facilitation. The focus of Regional Food Solutions is the community’s economic development potential of building local food and farm entrepreneur capacity to supply quality food and support regional economies with local commerce and sustainable land use.

Summary

The MSU Practicum Team has appreciated the opportunity to work with multiple partners and under the supervision of MSU faculty. Knowledge acquired through this project includes the concepts and functions of food systems; FIDs and food hubs for both economic development and social engagement purposes; and, mostly, gaining understanding of all of the research findings through the expertise of NWMCOG, the Center for Regional Food Systems, Regional Food Solutions LLC, MSU faculty, and planning practitioners. The end result of this hands-on course, practicum, is this portion of the future toolkit, which will be created for Michigan communities to use in the development of FIDs.

Chapter 2 – Food Systems Planning and Infrastructure

Introduction

Food has not always been at the forefront of planning efforts. There are several reasons to explain why planners have paid less attention to food issues when compared to long-standing planning topics such as economic development, transportation, the environment, and housing (American Planning Association [APA], 2007). The American Planning Association (APA) suggest the following reasons (2007):

1. A view that the food system — representing the flow of products from production through processing, distribution, consumption, and the management of wastes, and associated processes — indirectly touches on the built environment, a principal focus of planning interest;
2. A sense that the food system is not broken, so why fix it;
3. A perception that the food system does not meet two important conditions under which planners act — which include dealing with public goods(e.g., air and water); and planning for services and facilities in which the private sector is unwilling to invest (e.g., public transit, sewers, highways, and parks) (p. 1).

However, in recent years, food system issues are on the rise in the planning community. This growing interest demands an understanding that balances the need for an efficient food system with the goals of "[...] economic vitality, public health, ecological sustainability, social equity, and cultural diversity [...]"(APA, 2007, Findings section, para.1).

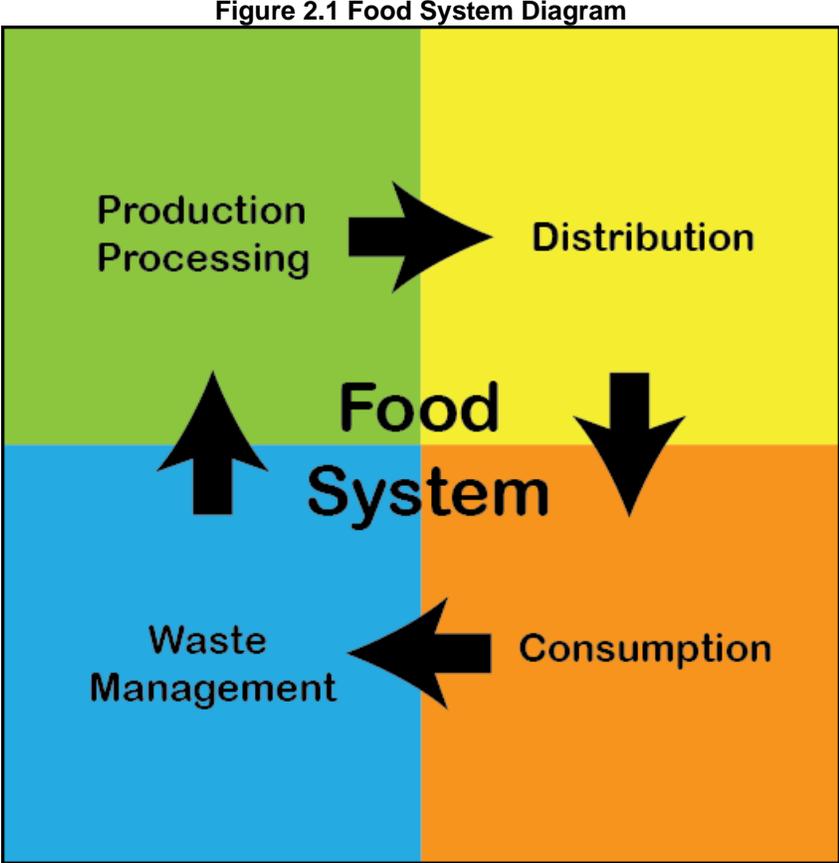
Planners have the professional expertise and community-oriented and interdisciplinary perspectives that could potentially strengthen community food systems. Pothukuchi and Kaufman (2000) state that:

[...] the links between the food system and other community systems are many and significant. For example, household and individual trips to grocery stores and other food outlets contribute a significant portion of urban transportation volume. Many health problems are food-related. A sizable number of lower-income residents living in cities depend on emergency sources of food found in food pantries, soup kitchens, and food banks. (Pothukuchi & Kaufman, 2000, pp. 118-19)

For all these reasons, the local food system is something that planners should not only be aware of, but should actively take part in planning.

Importance of Food Systems

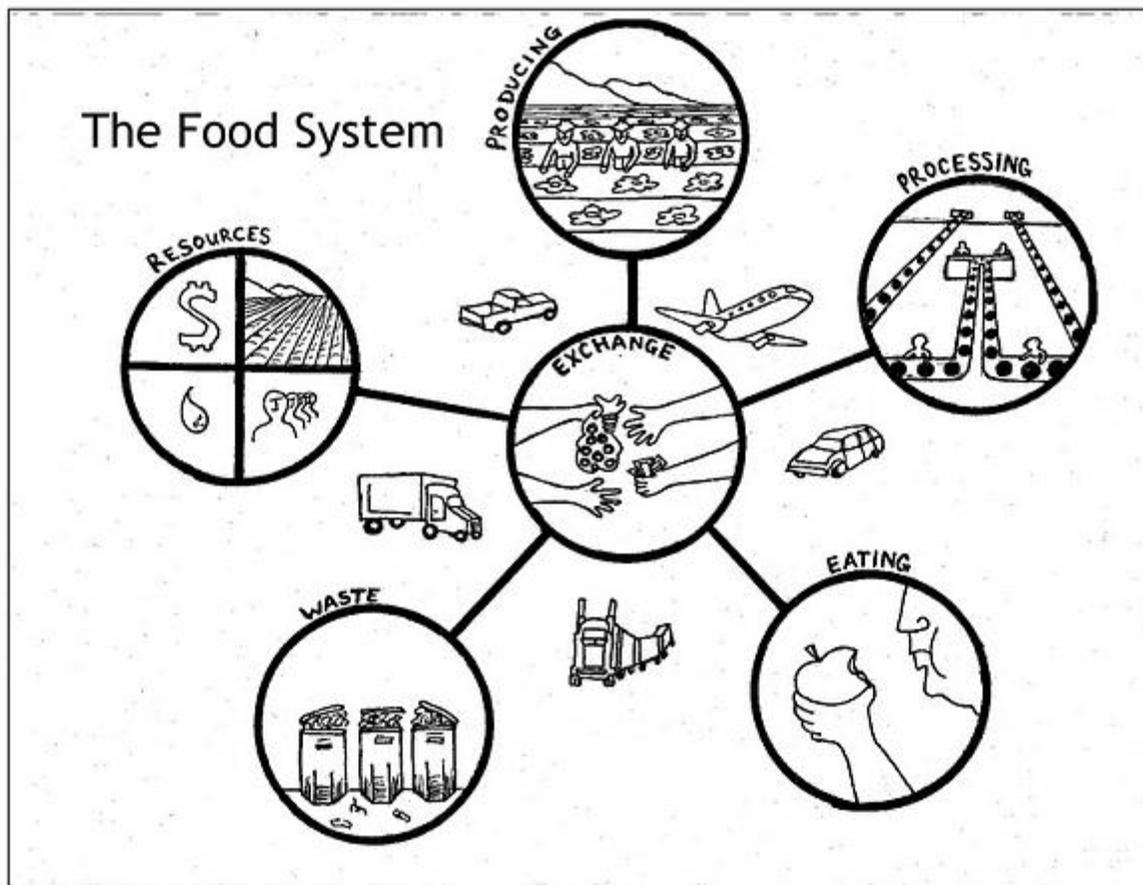
Local food systems may be viewed as an asset to both the local economy and the human ecology within a community. Figure 2.1 models a basic food system concept, consistent with the APA policy guide definition.



Source: MSU Practicum Team, 2012

The following Figure 2.2 is an alternative way of thinking about food systems. It shows the various aspects of the food system from extraction to consumption.

Figure 2.2 The Food System



Source: Kuhn, 2004

Local food systems have seen a growth in popularity in recent years (Martinez et al., 2010). Local food is defined as “[f]ood produced, processed, and distributed within a particular geographic boundary that consumers associate with their own community” (Martinez et al., 2010, p. 51). Local food systems can increase money invested in the local economy. These benefits can help increase business for local food businesses as well as create opportunities for new food business. The benefits of local foods also include increased health and nutrition through the availability of fresh foods, and a better sense of food security (Martinez et al., 2010).

The American Planning Association (2007) states “[h]ealthy food systems are important for all regions and must be supported in order to ensure food safety and security, sustainable development, public health and nutrition, and sound environmental managements” (APA, 2007, p. 17). Food is a critical element of everyday life that requires attention from local planners, elected officials, and the business community.

Research done by Kloppenberg, Lezberg, Master, and Stevenson (2000) concentrates on attributes of a sustainable food system. The research collected data from 125 individuals and identified 14 attributes involved within the sustainable foods

field. The attributes found in their research include: ecologically sustainable, knowledgeable/communicative, proximate, economically sustainable, participatory, just/ethical, sustainably regulated, sacred, healthy, diverse, relational, culturally nourishing, temporal/seasonal, and value-oriented. The attributes are listed in Table 2.1 below.

Table 2.1: The 14 Attributes of a Sustainable Food System

Attribute	Definition
Ecologically Sustainable	One in which the health of the environment is sustained and enhanced for use by all beings and by future generations
Knowledgeable / Communicative	A sustainable food system is one in which accurate knowledge about the food system is easily accessible and widely distributed, and people have the resources and ability to communicate that knowledge
Proximate	Food is grown, harvested, processed, marketed, sold, [and] consumed as close to home as possible
Economically Sustaining	One in which local farmers and area businesses are profitable, capable of supporting a good standard of living for workers, their households, and community in general
Participatory	One in which people participate directly in the operation and governance of multiple components of the food system in ways that are more complex and influential than simple market transactions
Sustainably Regulated	Regulations enhance environmental resources, protect a diversity of small and medium-scale farm and production units, and provide safe and just working conditions while promoting production of healthful and nutritious food
Just/Ethical	One that guarantees just conditions and ethical treatment for all workers and all beings affected by the food system
Sacred	Food is recognized as a sacramental medium for honoring and nurturing the spiritual well-being of all creation
Healthy	Both the food itself and the manner in which that food was produced contribute to the health of eaters and producers
Diverse	Diversity is encouraged in the farm ecosystem, within agronomic methods, for crop and animal varieties, and for consumer choices at the marketplace
Relational	Farmers, consumers, processors, and other participants have relationships, either through direct contact and/or through networks emphasizing responsibility, communication, and care for each other and the land
Culturally Nourishing	One in which the production, preparation, and consumption of food are respected for their capacity to express the cultural manifestations of self and community
Seasonal/Temporal	Acknowledges and respects the seasonal nature of agricultural production and utilizes this seasonality to provide information and to enhance the association of food with place
Value-oriented (Associative) Economies	Based on an economic system that favors environmental sustainability, relationships between farmers and consumers, fairness and equity, and strong communities over the profit motive

Source: Kloppenburg et. al., 2000, pp. 182-184

Infrastructure of Local Food Systems

Associated with food production are infrastructure demands. Cantrell and Lewis (2010) offer the definition of food system infrastructure as “[...] everything needed in the supply chain of activity between the consumer and the producer [...]” (p. 3). This encompasses the array of activities, facilities, and businesses that are necessary to the movement of food through the middle and often unseen, portions of the supply chain. Food system infrastructure includes processing, storing, aggregating, packing, shipping and distributing, among other activities (Cantrell & Lewis, 2010). While the infrastructure for global and national food systems is generally robust, local and regional food systems tend to lack the infrastructure needed for the efficient flow of food from regional producers to regional consumers (Cantrell & Lewis, 2010). To better understand local food system infrastructure needs and opportunities, the MSU Practicum Team considers three concepts that progressively expand in scale and scope: 1) nodes (single food-related businesses); 2) food hubs (central aggregation facilities that link multiple nodes); and 3) food innovation districts (FID) (a new concept that expands on the idea of a food hub and connections with and between nodes to explore the possibility of a district in which food-related businesses cluster together). Understanding these concepts and their components can help planners better explain, define, and create the phenomena within their own community or region.

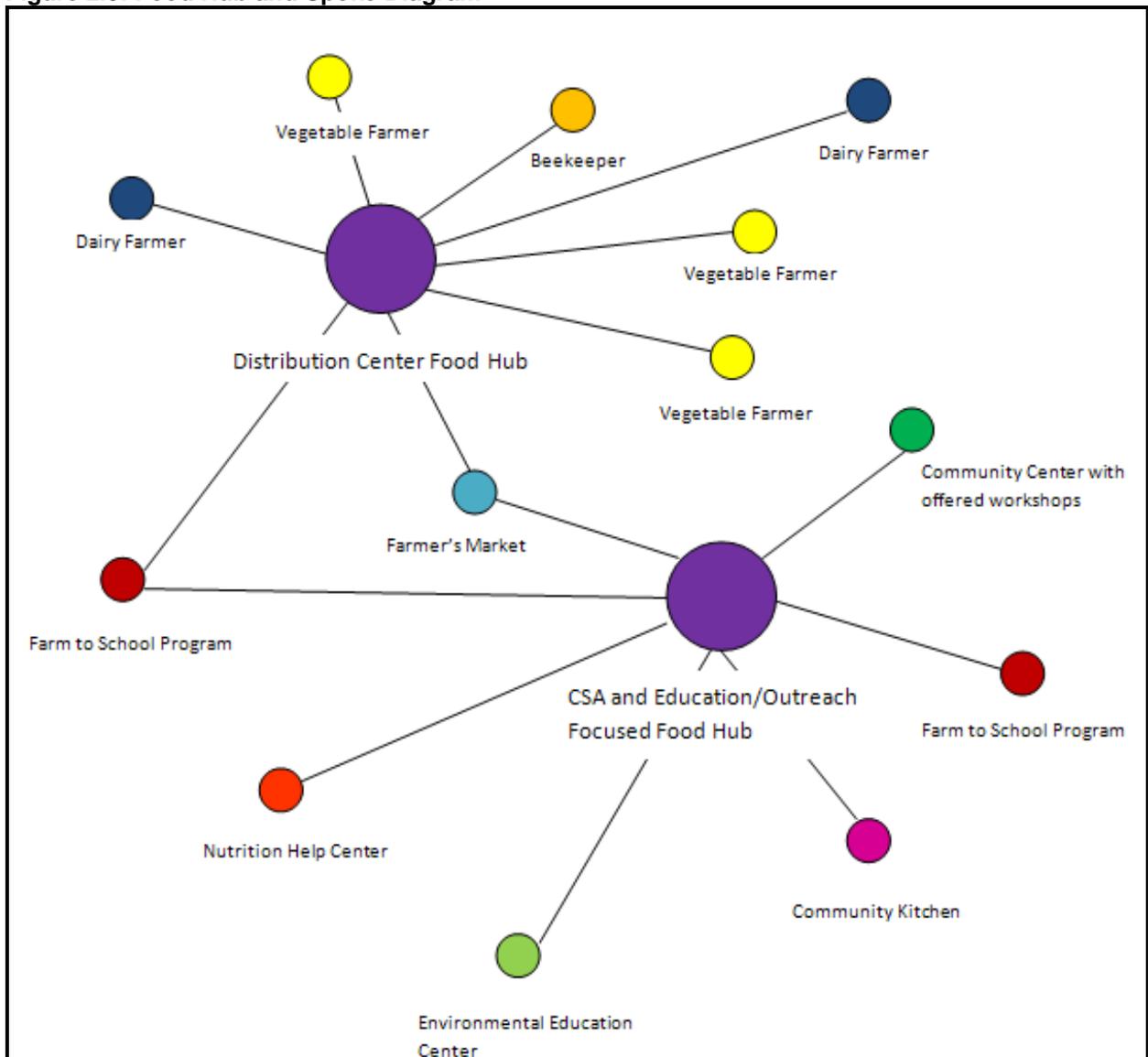
Nodes

A *Planners Dictionary* defines a node as “[a]n identifiable grouping of uses subsidiary and dependent upon a larger urban grouping of similar or related uses” (APA, 2004, p. 281). While exploring the definitions of food hubs and creating a description for FIDs, the MSU Practicum Team began using the term *node* to describe the difference between a food-related business or service and an actual food hub. An example that illustrates this difference is that a farm, which depends on a connection to a food hub, would be a node. The connections and the network that a food hub possesses are not present in nodes. For example, a wholesale food hub has connections with the farmers, or the producers, and consumers. A carrot farmer, however, is not likely to have connections to the consumers like the food hub does. The farmer brings their carrots to the food hub because they do not have the network that the food hub possesses. This differentiation is important, as certain nodes can at first appear to be food hubs and anchors in their FIDs, but lack one or more essential elements of a food hub.

A hub and spoke model helps to illustrate the connections that can be made between food hubs and nodes and the connections of nodes within an FID. In a food hub, the nodes all connect to the central hub, which provides a location for agglomeration, or “[t]he proximity of multiple industries [...] [that] [...] gain benefit from their common location in addition to whatever each firm might be able to do by itself” (Blakely, 2002, p. 140). In an FID, many nodes are connected with one another or may be linked to a food hub. These connections provide a regional

network, which helps to bring all of the parts of the food system together. This concept is illustrated in Figure 2.3.

Figure 2.3: Food Hub and Spoke Diagram



Source: MSU Practicum Team, 2012

Food Hubs

In recent years, the idea of a food hub as a means of bringing local and regional food to consumers together has been a focus of research and innovative practice.

A food hub is a central location that serves as an intermediary and aggregation source for local food. There are several research articles defining what a food hub is and how it can affect a local or regional community. As the need for a more

expansive explanation of functions, activities, and duties has increased, the definition of a food hub has evolved accordingly (Horst et al., 2011).

N.B. It is important to distinguish that in the economic development profession, a hub is defined as a larger geographical region.¹ However, in the food systems sector, a food hub has multiple accepted meanings.

USDA

The United States Department of Agriculture (USDA) definition of a food hub is one of the more widely used definitions. The USDA defines a food hub as, “[a] centrally located facility with a business management system that facilitates the aggregation; storage, processing, distribution and/or marketing of locally or regionally produced food products” (2011, page 3). According to the USDA (2011), a food hub serves three major functions: 1) aggregation and distribution of wholesale goods; 2) the coordination of food supply and business management; and 3) the use of permanent facilities for storage processing (Research from the USDA has also examined the roles of community involvement and direct consumer sale and retail as possible services provided by a food hub. However, the aforementioned are not core components of the definition. Table 2.2 helps to describe the main components and extra services that can be encompassed in a food hub according to the USDA definition.

¹ Jim van Ravensway, current Michigan State University instructor and former East Lansing Planning Director, shared insight into an economic practitioner's definition of an economic hub:

The term "Economic Hub" is a term commonly used by economic developers to either:

- a) describe the location of the center of business commerce for a region or area (e.g., the main city within a region, or the village in the center of an agricultural area where the transactions to buy and sell the products take place) or
- b) describe the primary economic activity that defines and supports an area such as jobs, income, etc. (e.g., furniture in Grand Rapids, or computers in Silicon Valley or even automobiles in Lansing).

(Personal Communication, March 23, 2012)

Table 2.2: USDA Food Hub, Required Components vs. Potential Services

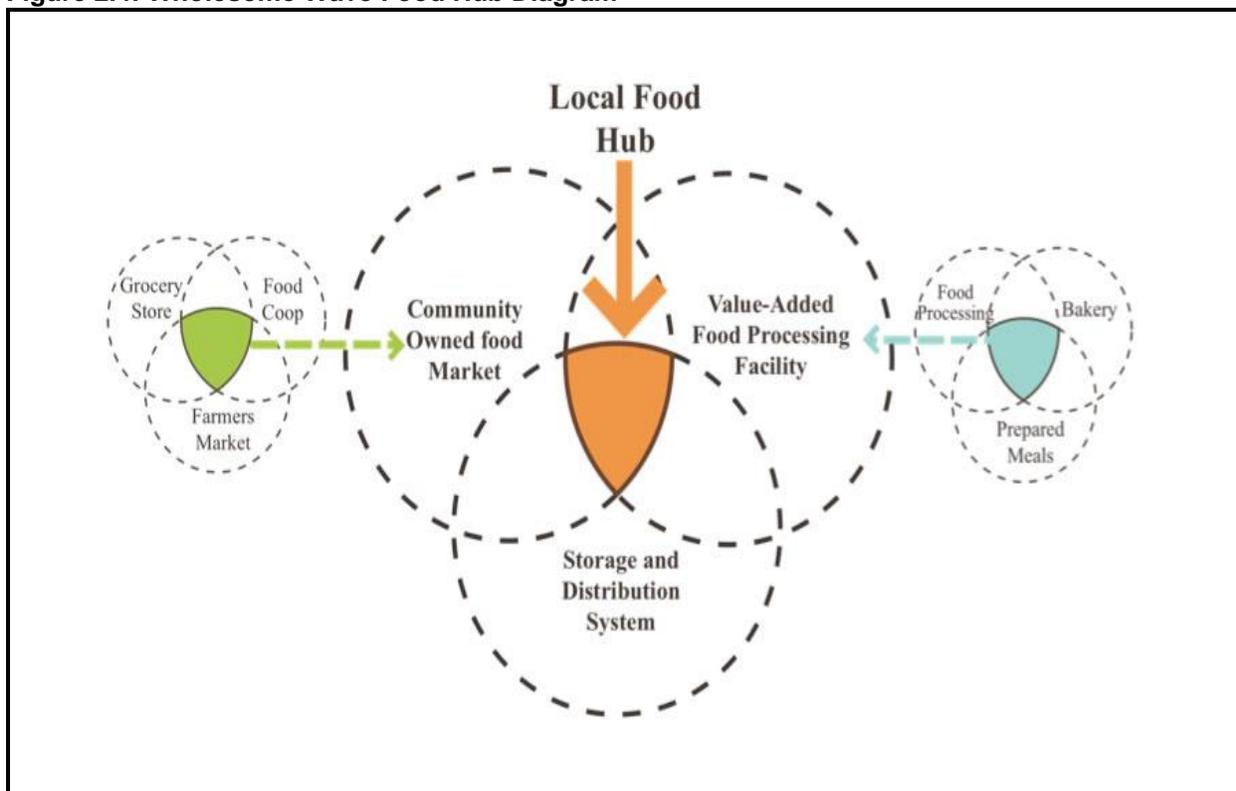
Required Component	Explanation
Aggregation	Aggregation and distribution of wholesale products
Coordination	Active coordination of activities along the food supply chain
Permanent Facilities	Provision of permanent facilities for storage, packaging, processing, and sale
Potential Service	Explanation
Terminus	Serve as the terminus for wholesale and retail vending of regional foods
Health and Social	Provide space for the provision of health and social services.
Community Outreach	Possible services may include community kitchens, pilot sites for EBT and WIC technologies, community event space and offices for health and human service providers.

Source: USDA, 2011

Wholesome Wave

The organization Wholesome Wave has also studied the topic of food hubs and has created their own definition. Wholesome Wave is a national organization with a mission, “[...] to improve access and affordability of fresh, healthy, locally-grown produce to historically under-served communities” (Wholesome Wave, n.d., Vision section, para. 1). This organization has expanded on the USDA’s definition of a food hub, while encompassing even more roles and duties for a food hub to fulfill (Wholesome Wave, 2010). The chart provided by Wholesome Wave (2010) furthers the USDA definition of a food hub by incorporating the consumer and the community through the addition of community-owned food markets. Community-owned food markets include grocery stores, co-ops, and farmers markets that allow the direct purchase of goods by consumers. Research done by Horst et al. (2011) describes the functions of this type of food hub as to “[p]rovide easy access, opportunity, and viability for small producers and low-income consumers” (p. 212). Wholesome Wave explains that this serves a purpose to, “[...] 'contribute to a healthier, more vibrant, and equitable system’” (as cited in Horst et al., p. 212).

Figure 2.4: Wholesome Wave Food Hub Diagram



Source: Wholesome Wave, 2010

Horst, Ringstrom, Tyman, Ward, Werner, and Born

The work done by Horst et al. (2011) in the article “Toward a More Expansive Understanding of Food Hubs”, combined earlier definitions and research on the subject and provided a deeper, more expansive definition. Their analysis finds previous definitions lacking in specific areas or falling short in encompassing the complete scope of a food hub. The research builds on previous definitions including the USDA (2011), Wholesome Wave (2010), and Kloppenburg et al. (2000). Horst et al. refine the definitions of food hubs into several subcategories. The type of hubs described include boutique/ethnic artisanal food hubs, consumer cooperatives, destination food hubs, neighborhood-based food hubs, online food networks, regional aggregation food hubs, and rural town food hubs (Horst et. al., 2011). Their description of several types of food hubs can help to provide an understanding of the wide variety of food hubs and the different functions they can serve. The article (Horst et al., 2011) concludes with the authors’ own definition of a food hub:

A food hub serves as a coordinating intermediary between regional producers and suppliers and customers, including institutions, food service firms, retail outlets, and end consumers. Food hubs embrace a spectrum of functions, purposes, organizational structures, and types, each of which can be tailored to achieve specific community-established objectives. Services provided by a food hub may include and are not limited to aggregation, warehousing,

shared processing, coordinated distribution, wholesale and retail sales, and food waste management. Food hubs contribute to strengthening local and regional food systems as well as to broader community goals of sustainability and health. (p. 224)

While this article provided valuable definitions of food hubs, there was also key information on how to evaluate and analyze food hubs. The article suggests that when researching a food hub that several attributes be considered. The suggested characteristics that should be observed include the following: what is the hub's main purpose, the audience, ownership, design and siting, and scale (Horst et al., 2011). Listed in Table 2.3 below are types of food hubs, with definitions taken directly from Horst et al. (2011, pp. 214-217).

Table 2.3: Types of Food Hubs

Type of Food Hub	Definition
Boutique/Ethnic/Artisanal Food Hub	Often operates in one facility under single ownership, with a focus on artisanal, craft, and specialty food and beverage sales. Markets local produce, dairy, meat, and grains. Demonstrates strong and visible connections to local farmers and producers. May include a focus on particular ethnic and cultural foods
Consumer-Cooperative Model	Initiated by an association of consumers who purchase in wholesale quantities from local producers for packing and redistribution to individuals
Destination Food Hub	A large-scale facility or set of facilities where food-related retail businesses serve as a primary attraction for both local residents and tourists, and tourists make up a significant percentage of customers
Neighborhood-Based Food Hub	Multiple contiguous city blocks with a high concentration of independent wholesale and retail food outlets. This district-style food hub provides access to diverse and healthy food options for local residents of varying income levels
Rural Town Food Hub	An entire rural town where relationships and strong connections between local food producers, processors, consumers foster a thriving local food economy. A high proportion of local residents are involved in promoting local alternatives to the global food system
Regional Aggregation Food Hub	A centrally located facility with a business management system that coordinates the aggregation, storage, processing, distribution and/or marketing of locally or regionally produced food products. The facility is often actively managed and coordinated by one organization. Specific examples of regional aggregation food hubs include packing facilities, where fresh horticultural products are cooled, graded, packaged, and marketed to larger wholesale distribution centers and/or retail grocers. Wholesale terminals are another example. Wholesalers receive large quantities of fresh produce by rail, truck, and air from local sources and around the world for sale and distribution to grocers, restaurants, institutions, and other businesses.
Hybrid Food Hub	A facility or set of facilities that integrates various kinds of activities described above, making it difficult to identify a specific type. Many existing food hubs function as hybrid food hubs

Source: Horst et. al., 2011, pp. 214-217

While the term food hub has been used by many organizations, groups, and individuals, the definition and functions are evolving to include their changing roles. As research has shown, food hubs have a wide variety of sizes, functions, and capabilities. The components contain many elements that are beneficial to a sustainable food system.

For the purpose of this report, the MSU Practicum Team will rely on the definition provided by the MSU Center for Regional Food Systems and additional research committed to the study of food hubs.

The defining components of a food hub, as explained by the MSU Center for Regional Food Systems (2012), are that food hubs are, “[...] 1) focused primarily on serving an intermediary role between regional producers and customers [...] and 2) operated as either a single business entity or under a single governance structure [...]” (K. Colasanti & L. Goddeeris, personal communication, March 20, 2012).

Food Innovation Districts

This report researches a newer concept, the food innovation district (FID). When compared to a food hub, an FID is a broader and more district-based concept. An FID brings together communities, local food producers, and other value-added activities which provide healthy food options and engagements for the citizens.

It has been proposed through discussion and research that, though it could be beneficial for an FID to contain a food hub or some of the elements of a food hub, it is not required for the definition of an FID. The following FID definition was created by the MSU Center for Regional Food Systems:

A food innovation district (FID) contains a diverse mix of food-oriented businesses and services, networked or connected to promote a positive environment for collaboration, spur regional economic growth, and increase access to healthy local food. The functions performed by the businesses within an FID may include but are not limited to aggregation, warehousing, shared processing, coordinated distribution, wholesale and retail sales, waste management or community engagement. An FID is more likely to benefit and continue to attract agri-food businesses if it either contains or has strong linkages to a “food hub,” defined here as a single entity aggregating food products from the region. (K. Colasanti & L. Goddeeris, personal communication, March 20, 2012)

The new term, FID, has been created “[...] to emphasize the planning and economic development strategies behind creating a conducive environment, specifically in terms of physical space and local policy, in which agri-food businesses of multiple types can co-locate, network and thrive” (K. Colasanti & L. Goddeeris, personal communication, March 20, 2012).

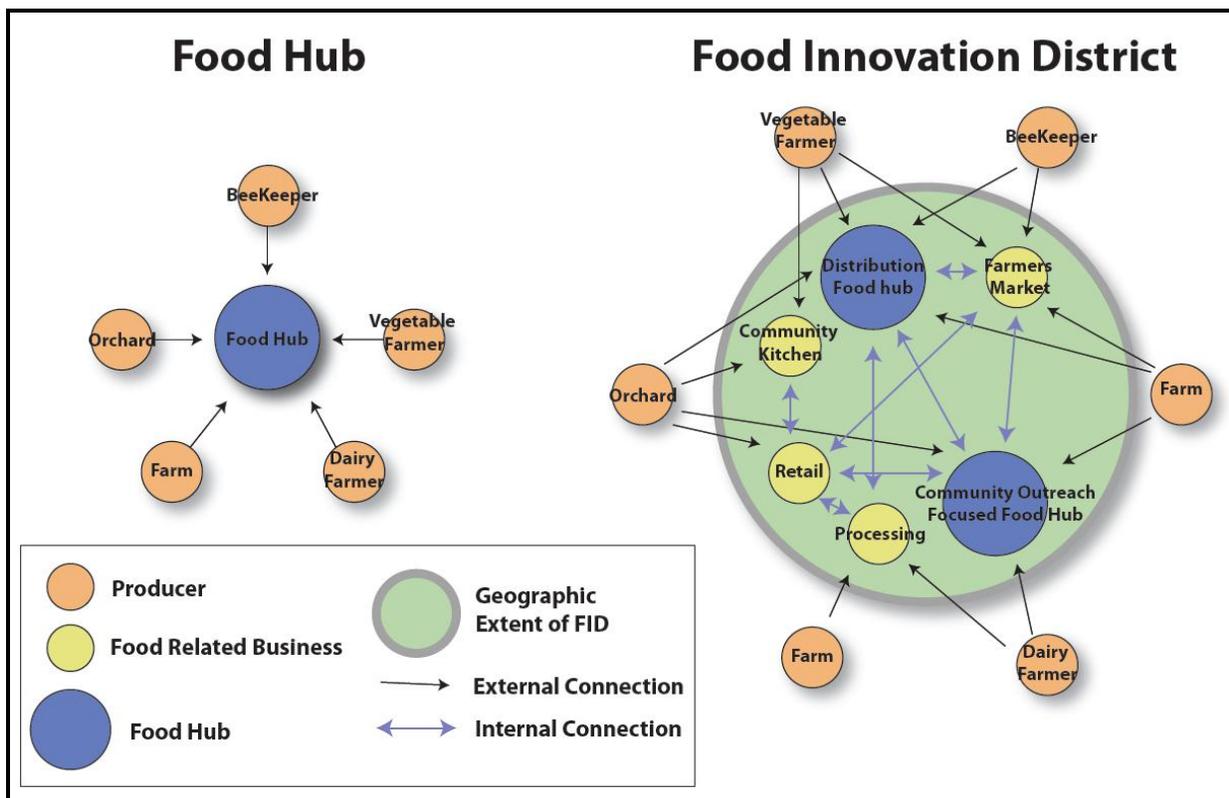
In addition to having a connection to a food hub, the relationships between multiple nodes within the district make FIDs a positive environment for collaboration and a catalyst for economic growth. An FID uses agglomeration within a defined district for the mutual benefit of these nodes in a regional network. Agglomeration is defined by the Farlex Financial Dictionary as “[t]he net advantage of building one or more businesses in a city or other large population center [...]”(Farlex Financial Dictionary, n.d., Agglomeration Economies section, para. 1). The MSU Practicum Team believes that an FID and the Michigan SmartZone share numerous structural characteristics. The SmartZone concept will be discussed in Chapter 4.

The inter-business connections that are fostered by agglomeration for these food-related businesses include networking with related businesses, shared distribution centers, shared food storage facilities, the exchange of ideas, and shared business services.

Food Hub and Food Innovation Districts: Compare and Contrast

Food hubs and FIDs have many overlapping attributes. Both can strengthen connections between the assets of the community (e.g., community supported agriculture, education, outreach, and so on) in order to further advance a sustainable and local food system. They may both aggregate products from multiple local producers or contain the same types of facilities and perform many similar functions. The differences between them include the concept that a food hub is a central location that provides an agglomeration of nodes without the inter-business connections, as well as the governance structure (a food hub being governed by a single entity). Inter-business connections can be seen in Figure 2.5.

Figure 2.5: Food Hub vs. FID

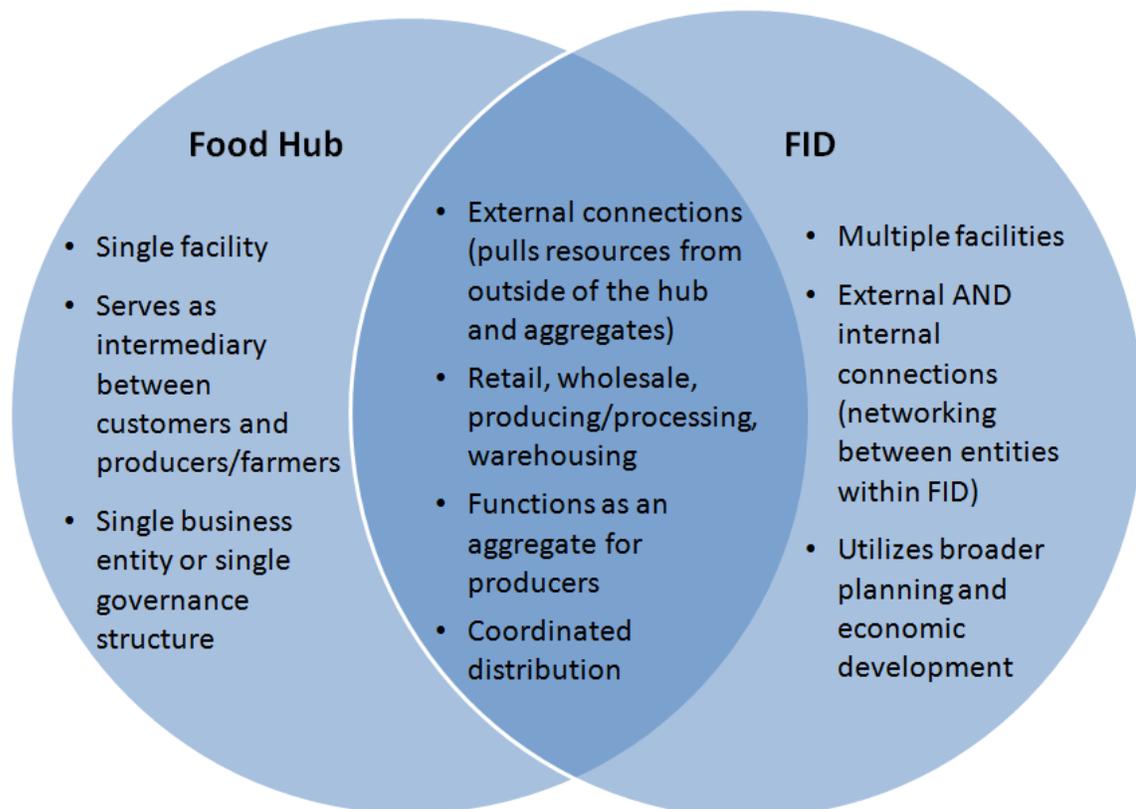


Source: MSU Practicum Team, 2012

Research by Horst et al. defines a destination food hub as “[a] large-scale facility or set of facilities where food-related retail businesses serve as a primary attraction for both local residents and tourists, and tourists make up a significant percentage of customers.” (Horst et al., 2011, p. 214). This type of food hub is particularly similar to the concept of an FID, as it contains a network of multiple facilities and food-related businesses. These kinds of district-style food hubs serve as possible examples of what an FID could represent.

One difference that arises between the FID and food hub concept is that a food hub is focused around a central location. The producer and consumer connection is facilitated through a single facility that is run by a single entity (MSU Center for Regional Food Systems, 2012). An FID is a network of food-related businesses located in a geographic region that benefit from the various interconnections. An FID can contain multiple facilities within the boundaries of the district. An FID has an emphasis on planning and economic development in order to encourage and incentivize a network of food businesses. Figure 2.6 illustrates the similarities and differences between a food hub and an FID.

Figure 2.6: Food Hub and FID Similarities and Differences



Source: MSU Practicum Team, 2012

Conclusion

A local food system can benefit a community or region in multiple ways. There are many methods in which a successful local food system can be achieved. FIDs are a new concept that takes the idea of clustering food related businesses in order to bring producer to consumer. Through creating a network of food related businesses, ideas and resources can be exchanged with a common goal of increasing access to local and regional food.

Summary

Food systems are the infrastructure and activities underlying the movement of food from farms and businesses to consumers. Existing food system components support food production that occurs over vast geographic areas. The components that have been discussed in this chapter provide possible ways to create a localized food system through agglomeration.

Food hubs are a key strategy in creating local and regional food systems. The concept of a food hub is how a centralized facility can help connect producer to consumer. The understanding of nodes helps to illustrate the connections made between entities other than food hubs. Through the connection from producer to consumer, more local food products can be transferred directly to the consumer.

This section also helps to explain the differences and similarities between the food hub phenomena and the emerging concept of an FID. Understanding what a food hub is can provide clarity in explaining what components make up an FID.

Chapter 3 - Food Innovation District: A Component Matrix

Introduction

This section describes the FID matrix designed by the MSU Practicum Team and includes how to apply it to a given community. Detailed descriptions of matrix criteria are included to aid in both use and comprehension. Three case studies are applied to demonstrate how the matrix is used.

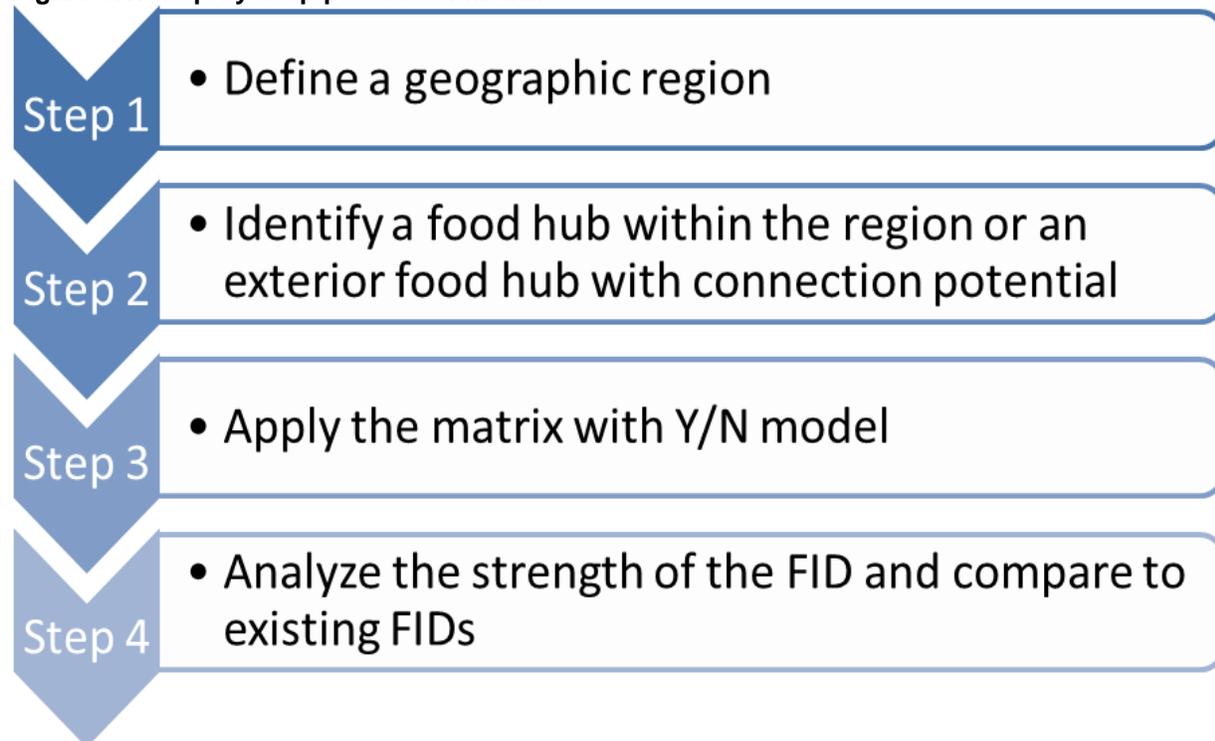
Since the concept of an FID is still evolving, an attempt has been made to identify the key components that make up these food-related districts and determine their relative strength. To do this, a matrix has been created because simple comparison methods fail to recognize the importance of multiple criteria in policy analysis and planning (Patton & Sawicki, 1993).

Matrix and Case Studies

The developed matrix is a helpful way for jurisdictions to identify food-related opportunities that might assist in incorporating FID aspects into their communities. Municipalities can assess what components they already have and what attributes could be added in order to strengthen a potential FID. A checklist approach is used in order to “[...] indicate the extent to which alternatives satisfy criteria” (Patton & Sawicki, 1993, p. 350). Patton and Sawicki’s (1993) checklist approach was adapted to a 'Yes/No' assessment for this matrix analysis. Using a 'Yes/No' criteria maintains a simplicity in the analysis, which allows for uniformity in the matrix’s application

In order to apply the matrix consistently each time, the following steps have been created to guide users through the matrix:

Figure 3.1: Step-by-Step process of Matrix



Source: MSU Practicum Team, 2012

Step 1: To make use of the matrix, users first need to define the geographic area (to be referred to as the case study) to be analyzed (e.g., municipality, series of city blocks, boundaries).

Step 2: Determine if there is a food hub within the case study or one within the region with which the district can connect (see Chapter 2 for more information on food hubs). If a food hub is nonexistent, communities are encouraged to work towards creating a food hub or connecting to one in order to strengthen FID development.

Step 3: Users will examine elements in the matrix and determine whether they are contained within the case study. ‘Yes’ is to be checked if the element is present. ‘No’ is to be checked if the element is not present. Descriptions are provided for each of the matrix components, however, for a specific example, please consult Appendix B.

Step 4: The ‘Yes’ ratings should be calculated to establish the strength of the potential FID. Through comparison and association with existing FIDs (such as the case studies in Appendix B), users can establish where FID characteristics are strong and pre-established and where there is room for growth.

Using the matrix as an assessment tool, a potential FID is stronger when it includes at least one 'Yes' in each of the sections outlined below. A case study that addresses each of these areas is more diversified and, therefore, lends itself to greater numbers and types of connections.

- Producer-Oriented
- Community-Oriented
- Place-Oriented.

A total of eighteen points is possible. This point system should demonstrate the strengths and weaknesses in a comprehensive overview of the area. Because the FID concept is still developing, a numerical value has not been established for what constitutes an FID. However, the more 'Yes' ratings, the stronger the FID.

The first category of the matrix is a benchmarking component that communities may utilize to better understand their area as it relates to other FIDs. The categories under Regional Descriptions do not have a required value, nor do they add to the strength of FID potential. They are to be used solely as a comparison tool. For example, it is more feasible for a community with a population over 100,000 to have a greater number of FID elements, but it may be more practical for a smaller region to have fewer components.

After the Regional Descriptions, the matrix is divided into three different sections with multiple sub-categories.

Table 3.1: FID Matrix

Identifying Food Innovation Districts		Regional Descriptions		
Defined Area	Is a Food Hub in the defined area, or is there access to a nearby Hub?	Population	Zoning	Demographics

Identifying Food Innovation Districts		Producer-Oriented Elements										Community-Oriented Elements				Place-Oriented Elements			
Defined Area	Is a Food Hub in the defined area, or is there access to a nearby Hub?	Wholesale District	Resale/Retail District	Planning & Coordination	Distribution Network	Shared Storage Facilities	Processing Center	Marketing Services	Farm to School	Education Program	Community Supported Agriculture	Community Kitchen	Connection to Low-Income	Health Component	Policy Supported	Place-making	Restaurant	Entertainment/Agritourism	Existing Food Cluster
		Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N

Source: MSU Practicum Team, 2012

A larger version of the matrix can be found under Appendix A.

Matrix Definitions and Ratings

The following matrix criteria have been established to assist in the assessment of FIDs. The below section shows the matrix characteristics, followed by their definitions.

Regional Description

Population - The population of the jurisdiction in which the case study is located

Zoning - The land-use designation of the case study (this area could be composed of multiple zones).

Demographics – The defining characteristics of the residents (e.g., income, marital status, race, and so on) of the jurisdiction in which the case study is located. These may be acquired for most areas from the U.S. Census Bureau or Business Analyst. <<http://censtats.census.gov/pub/Profiles.shtml>>

Producer-Oriented

Table 3.2: FID Matrix: Producer-Oriented Elements

Producer-Oriented Elements															
Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N

Source: MSU Practicum Team, 2012

Wholesale District – Wholesale is “: the sale of commodities in quantity usually for resale (as by a retail merchant)” (Merriam-Webster, n.d., Definition of Wholesale section). A wholesale district is where large quantities of product can be found within a defined geographical region. This type of wholesale market is different from a farmers market in that it does not do business with individual consumers.

Resale/Retail District – Resale is “: the act of selling again usually to a new party” (Merriam-Webster, n.d., Definition of Resale section). Retail is “: to sell in small quantities directly to the ultimate consumer” (Merriam-Webster, n.d., Definition of Retail section). The resale of food may occur where a farmer sells their goods to a local grocer, that then goes on to resell the goods to consumers. The retail of food covers a broad spectrum of establishments including farmers markets, local bakeries, local butcher shops, and so on.

Planning & Coordination - A form of preparation to guide local efforts can create greater organization in an area. Communities engaged in supportive planning initiatives anticipate potential obstacles and examine possible solutions. This sort of planning can result in increased communication and connectivity. Technology and social networks can often play an important role in coordination efforts.

Distribution Network – Horst et al. discusses the crucial role of aggregation and distribution, stating that “[a] food hub focused on aggregation and distribution allows multiple producers to combine their products and ship them to wholesale purchasers in greater volume than most individual producers could manage on their own” (Horst

et al. 2011, p. 210). Food distribution processes influence the quality and price of the food supplied. The cost of food increases due to transportation and packaging and the flavor and freshness of food decreases over travel (Unger & Wooten, 2006, p. 38). Logistic services are another element that may be addressed in the defined FID case study. Communities may offer tools, such as vehicles or warehouse space, for a network of producers to assist in moving products in a supply chain capacity.

Shared Storage Facilities – Multiple produces may bring their goods to a shared facility. This may include shared refrigeration coolers or climate-controlled rooms. Sharing facilities can lighten the financial burden of building and operating an individually-owned storage facility. For example, energy required for storage systems is costly; this can be reduced by sharing the cost among producers.

Processing Center - Such facilities are used for the development of raw ingredients and materials into a more refined product, or for the transforming of that product into different forms for the consumption by humans or animals. Before produce reaches the consumer it may need to be washed, chopped, weighed, and packaged. Purchasing all the equipment necessary for these processes may be too costly for individual producers. Such processing could be available in a community kitchen.

Marketing Services – These services can assist in creating an identity for food businesses and can be promoted through public assistance (e.g., wayfinding signage, visitor and convention centers) and/or private endeavor (commercials, billboards, targeted mailings, coupons, newspaper inserts, and other outreach). A third party that can assist in branding, promotion, and marketing of area foods is a helpful addition to an FID. Online marketing tools are another effective option.

Farm to school program – Such programs are being adopted by schools across the country. These programs encourage good eating habits, support local farmers, and educate students about food systems (Bagdonis et al., 2009; Markley et al., 2010; Vallianatos et al., 2004). The foods used in these programs are utilized for both nutritional value and educational purposes (“National Farm to School Network”, n.d.). Because schools have a large amount of buying power, partnering with schools can help secure a stable flow of income for the food producer.

Community-Oriented

Table 3.3 FID Matrix: Community-Oriented Elements

Community-Oriented Elements									
Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component	
Y	N	Y	N	Y	N	Y	N	Y	N

Source: MSU Practicum Team, 2012

Education Program - Education in an FID refers primarily to teaching citizens how to prepare healthy meals and incorporate local food into their diets. This criterion also includes vocational training that addresses topics such as food preparation, processing, or business management.

Community Supported Agriculture (CSA) -

[...] consists of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community's farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. (DeMuth, 1993, Introduction section, para 3).

Community Kitchen - Such a facility is a shared community space that can also function as a commercial kitchen (Wholesome Wave, 2010). These facilities can be used by processors, producers, or even caterers for inexpensive licensed food processing activities. This is also a space where knowledge and networking can be shared (College of Agricultural and Life Sciences & University of Wisconsin-Madison, 2001).

Connection to Low-Income Individuals – This concept can be addressed in a variety of forms. Government-subsidized food assistance on local produce is one way. A connection to low-income individuals may also come in the form of a soup kitchen or other hunger relief programs, which offer local produce to at-risk individuals. The National School Lunch Program (NSLP) and Food Stamp Program (FSP) have proven to play important roles in relieving hunger in households (Kabbani & Kmeid, 2005). Other programs which would meet this criterion would include job hiring programs for low income individuals, discounts on produce for senior citizens, or a 5% charitable giving commitment from area businesses located within the FID for food-related non-profits.

Health Component - FIDs that offer a health component will make health and nutrition programs available to members of the community. The Food and Nutrition

Service (FNS), a part of the USDA, is a federal administrator of nutrition programs and works to make linkages between diet and health (USDA, 2012a). The FNS may have a program in place within the FID study region. However, for a health component to be viable in the community, it must be accessible to the public.

Place-Oriented

Table 3.4 FID Matrix: Place-Oriented Elements

Place-Oriented Elements									
Policy Supported		Placemaking		Restaurant		Entertainment/Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N

Source: MSU Practicum Team, 2012

Policy-Supported - An area which supports FIDs through policy will greatly aid FID development. This criterion could include community participation, special events for the public hosted by the governing body, supportive zoning regulations, and financial assistance. Jurisdictions that offer tax abatements and other business incentives could encourage the start-up of FID-oriented activities and businesses by minimizing startup risks.

Placemaking- This criteria is a community space which promotes local or regional food production and identity. When a person identifies with a place, they will typically be more likely to use and care for that space. A placemaking strategy could include a permanent structure for year-round farmers markets. A permanent structure is especially useful in northern climates, where it is not practical to have an outdoor, unsheltered farmers market year-round. Indoor facilities provide for this need and also create a sense of place. Another possible placemaking strategy could be the creation of a logo or brand for the FID (for more on placemaking strategies, please see Chapter 5).

Restaurant – This criterion is defined as a food-establishment that includes local produce in a majority of its menu. Many of these businesses are referred to as ‘farm to fork’.

Entertainment/Agritourism – This criterion aims to distinguish areas that promote activity surrounding local food. Corn mazes, ‘pick-your-own’ enterprises, cider mills, and food festivals all attract visitors and could contribute to an FID’s quality of life, economic vitality, and more.

Existing Food Cluster - An existing food cluster is characterized as having multiple food-related businesses occupying the same geographic location. Not only are the

businesses located within close proximity of one another, but they have interactions together through transactions and in some instances shared services.

Case Study Pre-Tests

At this time, the matrix evaluation process considers all elements of the FID assessment with equal weight. Due to the small sample size of the pre-tests, there may be errors in the assessment process not yet evident. If there was not enough easily accessible information about a specific element, 'No' was indicated in the matrix.

To determine the usability and comprehensiveness of the FID matrix, the team conducted three pre-tests on areas that contain a working food hub. The food hubs are recognized by the USDA (2012) in the publication “Working List of Food Hubs”. These case studies were chosen in order to address a range of regions and scales. The cases can be seen below:

1. Location: Detroit, MI
 - Food Hub: Eastern Market
 - Owned and operated by the Eastern Market Corporation
2. Location: Oakland, CA
 - Food Hub: Mandela Food Cooperative & Thumbs Up Distributing
 - Mandela Food Cooperative is owned locally as a cooperative
 - Thumbs Up Distributing is owned and operated by Ben and Annie Ratto
3. Location: Wooster, Ohio.
 - Food Hub: Local Roots Market & Café
 - Owned and operated by Wooster Local Foods Cooperative, Inc.

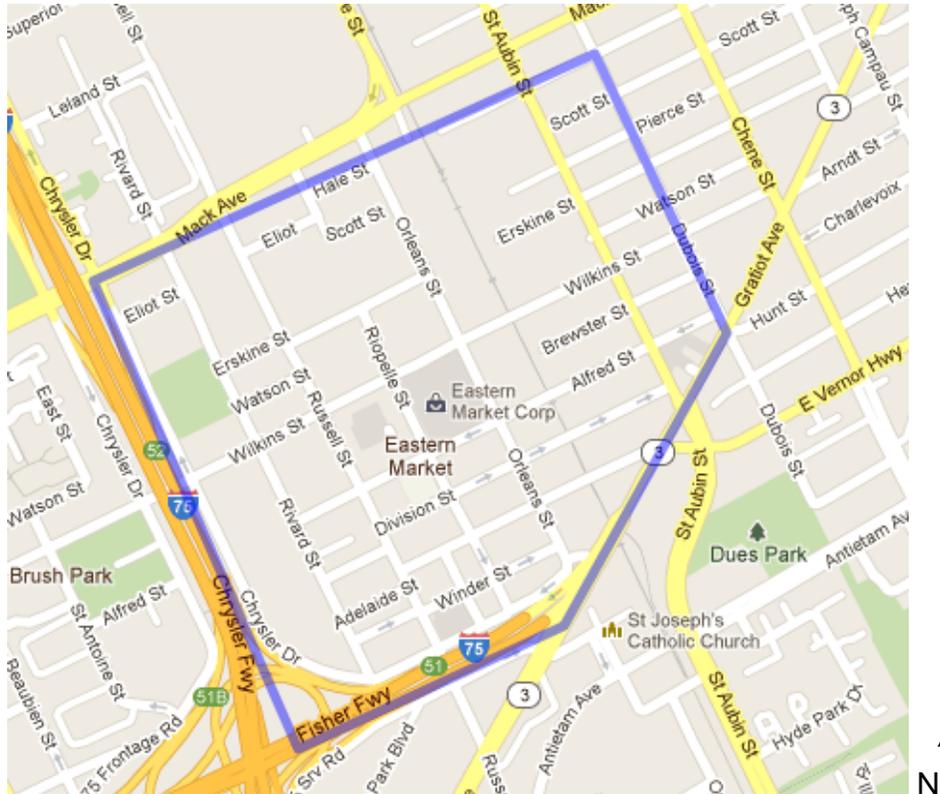
The MSU Practicum Team assessed each case study by entering the case study's attributes into the matrix and evaluating whether each criteria, as defined in the background research, was present.

Case 1

Location: Detroit, Michigan

Food Hub Present: Yes - Eastern Market

Figure 3.2: Potential FID: Eastern Market, Detroit, Michigan



Source: Google, n.d.a

Regional Description

- *Population:* The estimated 2011 population in Detroit (city), Michigan is 713,777 (U.S. Census Bureau-Detroit, 2010).
- *Zoning:* The majority of the case study parcels are General Services District and General Industrial District. Other zoned parcels in the case study include: Two Family Residential, Low Density Residential, General Business District, Intensive Industrial District, Planned Development District, and Special Development District, Residential/Commercial (City of Detroit ITS/Communications and Creative Services Division, n.d.).
- *Demographics:* The general population demographics of Detroit (city), Michigan are 82.7% Black persons, 10.6% White persons, and 6.8% Latino persons (U.S. Census Bureau-Detroit, 2010).

Production-Oriented

Table 3.5: Eastern Market Producer-Oriented Elements

Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X		X		X			X

Source: MSU Practicum Team, 2012

- *Wholesale District:* Yes - Regional farmers sell their produce to "[...] grocery stores produce distributors, restaurants, [and] farm stands [...]" (Eastern Market Corporation, n.d.a, para.1).
- *Resale/Retail District:* Yes -Year-long farmers market with 80 food-related businesses
- *Planning & Coordination:* Yes - Eastern Market is in the development stages of a number of projects including mixed-use development coordination, the Gratiot Corridor project, and the Bloody Run Creek Greenway Redevelopment Project (Eastern Market Corporation, 2011)
- *Distribution Network:* Yes - A community distribution system is managed by Green River Collaborative's Fresh Food Share Program (FFS) where fruits and vegetables are delivered through a neighborhood drop-off program (Eastern Market Corporation, n.d.b)
- *Shared Storage Facilities:* Yes - There are cold storage companies listed in the Eastern Market Wholesaler Directory, including Eastern Market Cold Storage and Metro Cold Storage (Detroit Eastern Market, n.d.c).
- *Processing Center:* Yes - "Eastern Market is home to dozens of independent companies that specialize in wholesale produce, meat processing and distribution [...]"(Eastern Market Corporation, n.d.d, para.1)
- *Marketing Services:* Yes - Eastern Market has a full-time staff member who coordinates marketing and community relations (Eastern Market Corporation, n.d.e)
- *Farm to School:* No

Community-Oriented

Table 3.6: Eastern Market Community-Oriented Elements

Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component	
Y	N	Y	N	Y	N	Y	N	Y	N
X			X	X		X		X	

Source: MSU Practicum Team, 2012

- *Education Program: Yes* - The Fresh Food Share program provides customers with newsletters, recipes, nutritional facts, and information about farmers and produce. The Fresh Food Share program also offers cooking demonstrations in varying neighborhoods (Eastern Market Corporation, n.d.b).
- *Community Supported Agriculture: No*
- *Community Kitchen: Yes* - Eastern Market is currently creating a community kitchen which can be rented for \$20 an hour (Oosting, 2012)
- *Connection to Low-Income Individuals: Yes* - As of 2007 EBT/Bridge Cards are accepted at the market (Eastern Market Corporation, n.d.f)
- *Health Component: Yes* - The Detroit Eastern Market Farm Stand program has partnerships with both healthcare and neighborhood- related markets which " [...] seek to increase resident and participant engagement around healthy eating choices in order to enhance the culture of wellness in the City of Detroit and throughout Southeast Michigan".(Eastern Market Corporation, n.d.g, para. 2).

Place-Oriented

Table 3.7: Eastern Market Place-Oriented Elements

Policy Supported		Placemaking		Restaurant		Entertainment/ Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X	

Source: MSU Practicum Team, 2012

- *Policy-Supported: Yes* - “Eastern Market currently gets a \$265,000 subsidy from the City of Detroit every year, but with budget cuts, it could slash that amount down to \$65,000” (Isom, May 18, 2011, para. 4).
- *Placemaking: Yes* - The market place structure creates a space of congregation and the Eastern Market Detroit brand is displayed on their website and on-site.
- *Restaurant: Yes* - A number of nearby restaurants use locally-grown products such as Eastern Market's Russell Street Detroit (Russell Street Deli, n.d.).
- *Entertainment/Agritourism: Yes* - There are events held throughout the year such as flower day, a Michigan apple festival, and bike tours offered by Wheelhouse Detroit (Eastern Market Corporation, n.d.h).
- *Existing Food Cluster: Yes* - The close proximity of food industries and the interconnectivity between the industries qualifies this as an existing food cluster.

This case study receives a total of 16 out of 18 ‘Yes’ ratings.

Production-Oriented

Table 3.8: Oakland Place-Oriented Elements

Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X			X		X		X

Source: MSU Practicum Team 2012

- *Wholesale District:* Yes - The People's Grocery offers a "wholesale hookup program" which provides residents the opportunity to purchase bulk organic and natural foods at lower wholesale prices (People's Grocery, n.d.).
- *Resale/Retail District:* Yes - The Mandela Foods Cooperative sells local goods and farm fresh produce in "[...] a community long underserved in grocery retail" (Mandela Foods Cooperative, n.d., para.1).
- *Planning & Coordination:* Yes - The Oakland Food Policy Council has created the document: *Transforming the Oakland Food System: A Plan for Action*. The document outlines evaluation and recommendations for local food projects (Oakland Food Policy Council, 2010).
- *Distribution Network:* Yes - Thumbs Up Distributing connects farmers and serves farmers of Northern and Central California (Community Alliance with Family Farmers, n.d.)
- *Shared Storage Facilities:* Yes - The Mandela Marketplace owns a warehouse with a cold storage unit that brings together produce from many neighboring cities (Mandela Marketplace, n.d.a)
- *Processing Center:* No
- *Marketing Services:* No
- *Farm to School:* No - While there is evidence of Farm to School Programs in adjacent neighborhoods, there is not sufficient evidence of farm to school programs within the defined district

Community-Oriented

Table 3.9: Oakland Community-Oriented Elements

Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component	
Y	N	Y	N	Y	N	Y	N	Y	N
X			X		X	X		X	

Source: MSU Practicum Team, 2012

- *Education Program:* Yes - Community education programs are offered in "[...] food systems, food policy, and food business models" at the HOPE Collaborative (HOPE Collaborative n.d., Community Programs section para.4).
- *Community Supported Agriculture:* No
- *Community Kitchen:* No

- *Connection to Low-Income Individuals:* Yes - The West Oakland Food Pantry at the Prescott-Joseph Center provides emergency food to families in need every month (Prescott-Joseph Center n.d.).
- *Health Component:* Yes - The Mandela Marketplace along with the West Oakland Health Council are working towards a healthy food prescription program. This will provide food descriptions for families in the WIC program and offering "[...] nutrition education and physical activity classes [...]" (Mandela Marketplace, n.d.b, para.5).

Place-Oriented

Table 3.10: Oakland Place-Oriented Elements

Policy Supported		Placemaking		Restaurant		Entertainment/Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X	

Source: MSU Practicum Team, 2012

- *Policy Supported:* Yes - Zoning regulations have been updated in order to encourage urban farming. New residential and commercial zones allow for "[...] 'Crop and Animal Raising Agricultural Activities' with approval of a Conditional Use Permit [...]" (City of Oakland, n.d., para. 2).
- *Placemaking:* Yes - Jack London Square offers a wide variety of services and creates a downtown atmosphere with attention to local food. An artisan marketplace and sustainable working garden are soon to be added to the area (Jack London Square, n.d.).
- *Restaurant:* Yes - Chop Bar, a local restaurant, sources its ingredients from nearly 20 local food vendors, and over 10 local beverage vendors (Chop Bar, n.d.).
- *Entertainment/Agritourism:* Yes - In September, the Eat Real Festival takes place in Jack London Square. Activities include food workshops, social events, and local food sampling (Eat Real Festival, n.d.).
- *Existing Food Cluster:* Yes - Two food hubs identified by the USDA are located in very close proximity to each other. Additional food-associated businesses in the area provides evidence for clustering.

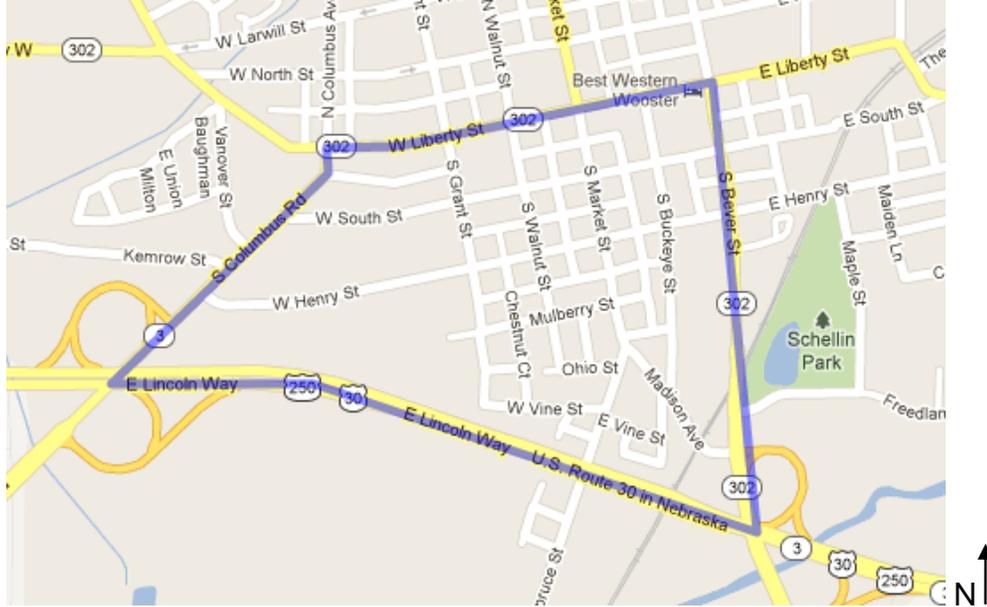
This case study receives a total of 13 out of 18 'Yes' ratings.

Case 3

Location: Wooster, Ohio

Food Hub Present: Yes - Local Roots Market & Café

Figure 3.4: Potential FID: Wooster, Ohio



Source, Google, n.d.c

Regional Description

- *Population:* The estimated 2011 population in Wooster (city), Ohio is 26,119 (U.S. Census Bureau-Wooster, 2010).
- *Zoning:* This case study contains a variety of zoning types. A majority of these zoning types are light industry, single family residential, retail commercial, and public/semi public (City of Wooster, 2002).
- *Demographics:* The demographics of Wooster (city), Ohio are 91.2% White persons, 3.6% Black persons, 2.2% Latino persons, 1.9% Asian persons, and about 1% other (U.S. Census Bureau-Wooster, 2010).

Producer-Oriented

Table 3.11: Wooster Producer-Oriented Elements

Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X			X		X	X			X		X

Source: MSU Practicum Team, 2012

- *Wholesale District:* Yes - Local producers supply locally grown food as members of the Local Roots cooperative for sale on-site or online (Local Roots Market & Café, n.d.a)

- *Resale/Retail District:* Yes - Local Roots Market & Café has a farmers market open year-round (Local Roots Market & Café, n.d.b).
- *Planning & Coordination:* Yes – A steering committee guided the planning of the Local Roots market by addressing the "[...] mission, goals, guidelines, location, and operational details [...]"(Local Roots Market & Café, n.d.b, para. 4).
- *Distribution Network:* No
- *Shared Storage Facilities:* No
- *Processing Center:* Yes - The Local Roots Market & Café is in the process of building a full commercial kitchen to "[...] allow producers to further process and preserve products for sale in the market [...]" (Local Roots Market & Café, n.d.b, para. 8).
- *Marketing Services:* No
- *Farm to School:* No

Community-Oriented

Table 3.12: Wooster Community-Oriented Elements

Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component	
Y	N	Y	N	Y	N	Y	N	Y	N
X			X	X		X		X	

Source: MSU Practicum Team, 2012

- *Education Program:* Yes - Local Roots offers education workshops on topics such as butterfly gardening and identifications and veggie gardening 101 (Local Roots Market & Café, n.d.c).
- *Community Supported Agriculture:* No
- *Community Kitchen:* Yes - Local Roots' commercial kitchen will be completed in 2012, but they do have a small kitchen open for processing at the café (Local Roots Market & Café, n.d.b).
- *Connection to Low-Income Individuals:* Yes - A Meals on Wheels branch is located within the district which serves those who are homebound or nutritionally at-risk (Meals on Wheels of Stark and Wayne Counties, n.d.).
- *Health Component:* Yes – The Wayne County WIC Program offers health and diet screening, nutrition education sessions, and other health-related programming (WCHD (Ohio), n.d.)

Place-Oriented

Table 3.13: Wooster Place-Oriented Elements

Policy Supported		Placemaking		Restaurant		Entertainment/ Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N
	X		X	X			X		X

Source: MSU Practicum Team, 2012

- *Policy-Supported*: No
- *Placemaking*: No
- *Restaurant*: Yes - In addition to the Local Roots Café, the South Market Bistro offers casual dining using locally sourced ingredients (South Market Bistro, n.d.).
- *Entertainment/Agritourism*: No
- *Existing Food Cluster*: No

This case study receives a total of 9 out of 18 'Yes' ratings.

Conclusion

The selected case studies represent a range of regions and scales, including low and high density areas. The selected communities also received a range of FID scores. Eastern Market is the most complete FID among these three, this may be due to its current approach as a district, rather than separate entities near one another. All three case studies have unique applications of FID components. They provide good examples of businesses and organizations to be included in a potential FID. 'Farm to School' and 'Community Supported Agriculture' were not evident in any of our case studies. Farm to School is an emerging concept, and there was evidence that this type of program may be started in a few years in some of our case studies (California Convergence, n.d.). The lack of CSAs may be due to the high density areas studied. CSAs often exist on more rural landscapes and land prices in urban areas may be too high for farmers to purchase.

Summary

It is useful for communities to have a solid understanding of the defining characteristics of food hubs and FIDs before undertaking the task of organizing such businesses, goods, and services. By identifying which food hubs and other related businesses and services are present in a community, an assessment can be made of any additional services that would be beneficial to the agglomeration and linking of multiple food-related businesses. Through the use of the matrix, communities can assess the strength of their potential FID, as well as see the areas in need of improvement or direction in which the planning effort must go. For further reading on food hubs or FIDs, please feel free to browse the Bibliography section, or consult our Recommended Readings section.

Chapter 4 – Building 58 Case Study

Introduction

This chapter will examine Building 58 of the Village at Grand Traverse Commons located within NWMCOG’s jurisdiction, partly in Traverse City and partly in the Charter Township of Garfield. The building’s future development will be analyzed with the FID matrix from Chapter 3; first in its current state and then again taking the redevelopment plans into account. The following sections will cover history, the Village at Grand Traverse Commons as it is now, and future plans, while making a case for the site as a future FID.

History of the Traverse City State Hospital

The Village at Grand Traverse Commons, developed by the Minervini Group, maintains the original beauty and charm it possessed many years ago. During its previous use, the buildings housed the patients and staff of the Traverse City State Hospital (Miller, 2005). Today, one will find an eclectic assortment of retail and services.

Opened in 1885, the self-sufficient state asylum provided care to citizens with mental illnesses. In its early years, the hospital adopted the philosophy of its first superintendent, Dr. James Decker Munson, “[...] ‘beauty is therapy,’ [...]” and “[...] ‘work is therapy,’ [...]”. The institution involved patients in farm work and other roles on the scenic grounds (Miller, 2005).

Figure 4.1: Birdseye View of Grand Traverse Commons



Source: The Minervini Group, n.d.a

As the years went on, “[c]hanges in budget priorities, new laws, [...] changes in mental health care philosophy, and the introduction of new medications for treatment combined to cause the decline of the institution from the 1950s until its closure in 1989” (Miller, 2005, p. 8).

After years of struggle surrounding changing community needs, the Traverse City State Hospital ultimately found new caregivers: the Minervini Group and Rolling Centuries Farm (working with the barns) (Miller, 2005). Today, the site is “[...] one of the largest [...] historic preservation and adaptive reuse redevelopments in the country [...]” (The Minervini Group, 2011, The Village at Grand Traverse Commons section, para.1).

Building 58

Building 58 of the Village at Grand Traverse Commons, the previous food preparation and dining building, is the focus of this case study. Utilizing \$50,000 awarded by the MEDC for renovation, the 55,000 square foot building. In an article on the redevelopment project, Coon describes the amenities that will be a part of Building 58 after completion:

“[w]ill provide a yearlong indoor farmers market, a community kitchen for educational classes and value-added agricultural product development, a certified commercial kitchen for lease, cold storage, and product processing and aggregation for restaurants, schools, hospitals and grocery stores” (Coon, 2011).

Concerning location, “[t]he site lies partly within the corporate municipal boundaries of the City of Traverse City and the Charter Township of Garfield” (The Charter Township of Garfield, 2011, page 15). The Grand Traverse Commons has its own master plan and zoning ordinance. The cluster of buildings that Building 58 is located in is zoned as a mixed-use village district.

Primary Land Uses and General Character

The makeup of the Grand Traverse Commons and the development's goal is summarized by The Charter Township of Garfield (2011) below:

The area is primarily planned to accommodate a mix of uses to create a dynamic village like setting. Uses include, but are not limited to commercial, residential, professional, community, food services, and cottage industries. New buildings will be developed in such a manner that is compatible with the fundamental characteristics of Building 50, its immediate surrounding buildings and the Secretary of the Interior Standards for the Treatment of Historic Properties. (p. 85)

There are numerous positive outcomes to the redevelopment of Building 58, such as job creation and stability, and the sharing of resources, such as the centers and services referred to in the matrix in Chapter 3. Some of the anticipated benefits include “[...] employment opportunities for farmers, agri-food entrepreneurs, distributors, processors and others. It can lead to new product innovation, increasing profitability through reduced supply costs and co-marketing” (Coon, 2011).

While Building 58 is currently vacant, if the future development is executed as planned, it has great potential as an FID. For the purpose of this analysis of Building 58, the plans outlined for the redevelopment of the building, as well as the qualities and uses of the surrounding complex, have been taken into consideration.

Figure 4.2: Current Building 58



Source: The Minervini Group, n.d.

The following sections will utilize two matrices showing both the current state of the building and activities and the future plans of the site. The purpose of using two matrices is to show a *before and after* analysis of the development.

Current Village at Grand Traverse Commons Matrix

Regional Description:

- *Defined area:* The Village at Grand Traverse Commons, comprised of “63 acre campus nestled in over 480 acres of preserved parkland.” (T. Phelps, personal communication, April 25, 2012).
- *Zoning:* Mixed-use
- *Demographics:*
 - Population of Village at Grand Traverse Commons is approximately 400 people (The Charter Township of Garfield, 2011).

Producer-Oriented:

Table 4.1: Current Grand Traverse Commons Assessment, Producer-Oriented

Producer-Oriented Elements															
Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
	X	X		X		X		X		X		X			X

Source: MSU Practicum Team, 2012

- *Wholesale*: No
- *Resale/Retail*: Yes – 18 shops that fall under this category.
- *Planning/Coordination*: Yes - Master plan and zoning ordinance
- *Distribution Network*: No
- *Shared Storage Facilities*: No
- *Processing Center*: No
- *Marketing Services*: Yes – The Minervini group has a website and brochures to help promote activities and business opportunities
- *Farm to School*: No

Community-Oriented:

Table 4.2: Current Grand Traverse Commons Assessment, Community-Oriented

Community-Oriented Elements									
Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component	
Y	N	Y	N	Y	N	Y	N	Y	N
	X	X			X	X			X

Source: MSU Practicum Team, 2012

- *Education Program*: No
- *CSA*: Yes – Community garden and community programming
- *Community Kitchen*: No
- *Connection to Low-Income Individuals*: Yes – They offer subsidized housing
- *Health Component*: No

Place-Oriented:

Table 4.3: Current Grand Traverse Commons Assessment, Place-Oriented

Place-Oriented Elements									
Policy Supported		Placemaking		Restaurant		Entertainment/ Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X	

Source: MSU Practicum Team, 2012

- *Policy-Supported:* Yes - Historic District designation, Michigan tax-free Renaissance-Zone Designation, and Brownfield Redevelopment
- *Placemaking:* Yes – The development’s goal is to be year-long indoor farmers market
- *Restaurant:* Yes – There are nine restaurants, eateries, and wineries
- *Entertainment/ Agritourism:* Yes - Seasonal entertainment
- *Existing Food Cluster:* Yes - Some local food businesses already in place

Future Village at Grand Traverse Commons Matrix

Regional Description:

- *Defined area:* The Village at Grand Traverse Commons, “63-acre campus nestled in over 480 acres of preserved parkland” (T. Phelps, personal communication, April 25, 2012).
- *Zoning:* Conservation, Recreation and Open Space; Mixed-Use Cultivation; Mixed-Used Institutional; Mixed-Use Medical; Mixed-Use Village
- *Demographics:*
 - Population is expected to grow by 29 residential units (T. Phelps, personal communication, March 30, 2012).

Producer-Oriented:

(T. Phelps, personal communication, April 3, 2012).

Table 4.4: Future Grand Traverse Commons Assessment, Producer-Oriented

Producer-Oriented Elements															
Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X		X		X		X	

Source: MSU Practicum Team, 2012

- *Wholesale:* Yes – “The ability for Farmer’s to bring (for example) all of their “potatoes” together and store them in a common root cellar would allow for large bulk quantities to be sold. Benefiting a group of local farmers and allowing for community needs of a large quantity of supplies to be met.”

- *Resale/Retail:* Yes – “There has been discussion about a “Food Hub” Brand. Where products could be sold benefitting all those farmers/producers whose products have been put to use in developing a common good. This Food Hub brand would then be marketed, promoted and items like reusable bags, water bottles, t-shirts could be developed and sold.”
- *Planning/Coordination:* Yes – “A team of Food Hub employees would be in charge of coordination with farmers, distributors, restaurant owners, etc. They would also be planning education & community outreach programs that would be put in place right on site at the Food Hub.”
- *Distribution Network:* Yes – “As the name suggests, this building would be a HUB of activity. Instead of restaurant owners traveling to different farms all over the region, they would be able to make one stop or order from one single location the items they need. A distribution plan would be put into place either providing a sole local distributor the reins for all food distribution from the Hub or allowing the Food Hub’s loading dock to be a central distribution center where trucks would come and go to distribute to their local restaurant/retail customers.”
- *Shared Storage Facilities:* Yes - “Building 58 has hundreds of square ft of storage capacity. From the Dozens of large built in coolers to the tri-level dry good storage facilities, Farmers and local growers would have the ability to rent storage space. The unique space will be able to provide the perfect environment for the storage of these goods as each cooler can be set to a different temperature depending on the goods that it stores.”
- *Processing Center:* Yes – “A common rentable space for added-value products is a true need in our community as well as a general washing & packaging line. Building 58 has the available space to set up a Processing & Packaging line that local farmers and small-businesses will be able to rent on a per hour or per day basis (TBD).”
- *Marketing Services:* Yes – “One of the prospective benefits of this Food Hub will be having a Marketing Person on Staff. When a Farmer or small business owner rents storage space, attends the Farm Market, or rent’s the Processing/Packaging line, they will become a part of the community that can enlist the help of this on-staff Marketing expert. Thus allowing for smaller businesses to expand & Farmer’s to brand their name and get the word out about their products. These folks would otherwise not necessarily have the facilities, experience nor means to producing Marketing on their own.”
- *Farm to School:* “Most likely - There has been a large discussion in Traverse City Area Schools lately about the benefits of using our local produce in healthier school lunches. The challenge has always been the quantities & cost. With the addition of the Food Hub, those problems would be addressed. With larger quantities of fresh local produce available from the community of Farmers that would store on site at the Food Hub, Schools could count on their needs for larger quantities being met. Also, with an affordable cost of storage & increased sales due to the marketing benefits, and hub of supportive customers Farmers would be able to sell at a common price that

was reasonable/affordable to both parties.”(T. Phelps, personal communication, April 3, 2012).

Community-Oriented:

Table 4.5: Future Grand Traverse Commons Assessment, Community-Oriented

Community-Oriented Elements									
Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component	
Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X	

Source: MSU Practicum Team, 2012

- *Education Program*: “Yes - Yet to be discussed in detail, but it will certainly be a component” (T. Phelps, personal communication, April 23, 2012).
- *CSA*: Yes - Community garden and community programming
- *Community Kitchen*: Yes – Building 58 will contain a community kitchen
- *Connection to Low-Income Individuals*: Yes – More subsidized housing units are to be built
- *Health Component*: “Yes - There will be business office spaces for Nutritionist/dietitians, etc.”(T. Phelps, personal communication, April 23, 2012).

Place-Oriented:

Table 4.6: Future Grand Traverse Commons Assessment, Place-Oriented

Place-Oriented Elements									
Policy Supported		Placemaking		Restaurant		Entertainment/ Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X	

Source: MSU Practicum Team, 2012

- All characteristics are rated ‘Yes’ currently. It is anticipated this will not change in the future.

Conclusion

The Village at Grand Traverse Commons already contains many of the elements that will assist in creating an FID. Once the renovation of Building 58 is completed, with an entire building dedicated to food-related businesses, the area will possess even stronger FID characteristics.

Summary

Building 58 and the Village at Grand Traverse Commons serve as an example for other communities aiming to create an FID. The use of historical preservation and tax incentives, as well as the creation of the development's own master plan makes this FID an example that could be used by a wide range of cities with a diverse set of circumstances.

Chapter 5 – Business and Economic Strategies for Food Innovation Districts

Introduction

This section of the report analyzes various business strategies that could assist in planning for FIDs. Clustering is an evolving concept that has been used by cities and places for decades. Tax incentives offered through state legislation can spur economic development in the form of job growth and investment into the local economy. The Michigan Main Street Program is an example of an implemented placemaking tool that targets the preserving, shaping, and remaking of identifiable places statewide. Another state program, the Michigan SmartZone, is proposed as a model for creating FIDs from a regulatory perspective. While these concepts do not deal directly with food, there are many aspects of the strategies that may be adapted for food-related businesses.

Clustering Strategies

Industry density serves as an advantage for connecting the local economy to both the community and the region. Density is what drives the market, through competition, transport, and distribution, among other things. T. Gabe (n.d.) of the University of Maine suggests that measures of employment growth, business location, and earnings, each capture different benefits of industry clusters and are positively associated with geographic concentration.

If offered financial incentives, food-related businesses may be enticed to locate in FIDs, forming clusters, which will potentially serve as stimuli for employment growth and earnings. Businesses locating to an area may possess necessary strengths for developing the local economy (e.g., skilled labor force, training program). Additionally, new firms should bring newer technology and innovation. Along with employment and technology benefits, high concentrations of industry-related businesses within a marked boundary bring reduced transport costs, goods, people, and ideas (Ellison et al., 2007). Food-related businesses located within close proximity to others in the food industry may find this to their advantage (i.e., producing, processing, distribution), thus promoting synergy in the local economy. Businesses may locate based on where they can access the skilled labor force or key natural resources, furthering the growth of employment and agglomeration (Gabe, n.d.).

In *Local Economic Development: Theory and Practice*, E. Blakely (2002), an urban policy specialist and key player in the reconstruction team of the city of New Orleans, defines industrial clusters as businesses in related industries that:

- Gain a competitive advantage because of their proximity to each other in the region;
- Share specialized supplier and buyer (marketing) advantages because of their location; and
- Are supported by advantageous infrastructure in the region, such as physical resources (ports or minerals), educational and research advantages (universities), financial institutions (venture capital), and labor advantages (training programs) (p. 140).

Blakely (2002) elaborates on clusters being used in four separate strategies:

1. *Specialized Infrastructure Strategies* - By establishing “soft” resources of policy, such as finance and environmental regulations, “hard” infrastructure may be constructed for the completion of transport routes and destination attraction (p. 148).
2. *Missing Link Strategies* - Identifying gaps in supply and marketing linkages is a way for business leaders and policy makers to expand the strengths of a cluster or to salvage one that is threatened (p. 148).
3. *Human Resource Strategies* - The cluster is expanded by the increase of skill and job training. A competent workforce is the core resource for clusters competing in the local economy. Whether there is a ready-skilled labor force that may contribute to the shared network of resources for clusters, or local workforce development programs that harness education and training unique to the cluster, human resource skills are focused on growth industries that make every business more successful (p. 148).
4. *Marketing Strategies*- “Clusters are most successful when they are well-known [...]” (p.148). If a cluster does not retain a market identity, it is less likely that it will expand. Public policies of procurement and marketing boards can highly influence the market for products. Public assistance in marketing includes proclamations of regional branding, establishing convention centers, visitor centers, and other facilities to aid the market (p. 148).

Using the above strategies, a coordinating authority, such as a Downtown Development Authority (DDA), could assist in piloting, managing, or shaping food-related clusters. Making capital improvements, identifying agricultural skill/trade training programs, and promoting the regional brand of clusters are examples of supportive action. The critical mass of resources available to the FID will be determined partly by its access to the strategies numbered above. The logistical framework of FIDs may require all or certain strategies through professional stewardship, when individual approaches by business leaders have been exhausted.

Tax Strategies

Introduction to Tax Incentives

State legislation offers taxation options to entrepreneurs, small businesses, and large companies for participation in the competitive market. Tax credits and tax increment financing (TIF) are tools that local economic developers use to attract both startup businesses and larger firms to their cities. Both have detailed criteria for businesses to meet before being rewarded a tax incentive.

The incorporation of a DDA is designed to be a catalyst for the development of a community's downtown district (MEDC, 2012a), and its operation in partnership with businesses and other public offices may aid the implementation of FIDs through such initiatives as taxation.

Tax Credits

The Michigan Business Tax (MBT) was enacted by state legislature in July 2007, and contained over 30 credits available to businesses (State of Michigan, Department of Treasury, 2011). One credit in particular is the Brownfield MBT Credit, introduced by Public Act 36 of 2007. The Lansing Economic Development Corporation (LEDC, 2009a) defines the Brownfield MBT Credit as, "[...] a tax credit given for specific State of Michigan approved expenses relating to the development of a Brownfield approved property [...]" (Incentives section, para. 1). A developer would apply for the credit through the MEDC upon having their property approved for brownfield redevelopment by the local Brownfield Redevelopment Authority (BRA).

The Lansing BRA (LBRA), serves the primary purpose of encouraging the reuse of industrial, commercial, and other property by offering economic incentives (e.g., tax credits) for redevelopment (City of Lansing, 2008a). A brownfield, as defined by the City of Lansing (2008a), is "[...] a property or structure which is currently abandoned or underutilized because of the perception or existence of environmental contamination or that the site is blighted or functionally obsolete" (Brownfields section, para. 2). The tax credits offered through the MBT are scheduled to expire after new legislation was passed early in 2012. The LEDC, in cooperation with LBRA, played a key role in forming public-private partnerships with startup businesses and large corporations in Lansing. The LEDC (2009a) explains why and how the brownfield credit is used:

Why- The MBT Credit is given to developers for costs that aren't eligible for reimbursement through the local or state Brownfield Tax Increment Financing programs. The MBT Credit is valued at 12.5% of those costs and may be approved for up to 20% of those costs. The Credit can be used to offset a company's Michigan Business Tax liability, sold to a third party, or converted to a cash value by the State of Michigan for 85% of its value.

Example- A developer who spends \$100,000 in brownfield reimbursement eligible expenses also has \$1,000,000 in non-reimbursable expenses. Before starting construction, and after the local government has approved the use of a brownfield program, the developer makes application to the Michigan Economic Development Corporation for an MBT Credit on their non-reimbursable expenses. With MEDC approval, the developer will receive a tax credit worth between \$125,000 and \$200,000. (Brownfield Michigan Tax Credit- PA 36 of 2007- Brownfield MBT Credit Section, para. 3-4)

Although this incentive is expired, it still serves as a valuable economic model. Offering tax credits to food-related businesses may stimulate economic development. A disadvantage to the benefits of tax strategies is the requirement of state-enabling legislation, which allows for the use of the incentives. However, wherever applicable, the MSU Practicum Team suggests businesses functions in food systems seek out aid for taxation and financing alternatives.

Tax Increment Financing

TIF is defined by Dye and Merriman (2006) as a “[...] tool that allows municipalities to promote economic development by earmarking property tax revenue from increases in assessed values within a designated TIF district” (Tax Increment Financing section, para. 1). In Michigan, the Legislative Council (2009a) incorporates local TIF Authorities to “[...] prevent urban deterioration and encourage economic development and activity and to encourage neighborhood revitalization and historic preservation [...]” (Introduction section, para. 1).

The Lansing Tax Increment Finance Authority (TIFA) is allowed to establish and utilize financial and development plans and has a governing board to oversee and facilitate its functions (LEDC, 2009b). Upon approval, a TIF plan uses portions of tax revenue to fund improvements on newly-developed structures and property within a TIF district. TIF plans do not infringe upon the tax revenue on current property at its existing value, but capture returns from any increase in that value (Anderson Economic Group, 2004).

TIFA was established in 1980 to help eligible cities to refute the decline in property value within a specific area (MEDC, 2012b). In short, TIFA districts encourage growth within specific boundaries of a city. The authority defines, outlines, and supervises the TIF district, which typically houses brownfield redevelopment projects. Typically, both the brownfield development and TIFA operate in coordination with one another. As stated prior, the MBT Credit is granted to developers whose projects are not eligible for a TIF program. A brownfield plan is more desirable with either of the two incentives. However, TIF is traditionally used with brownfield redevelopment.

For food systems developing within an urban territory, a TIF plan would benefit both the facilitation of urban renewal and adaptive reuse. Local farmers markets, food processors, grocery stores, and restaurants may all be incorporated into a TIF plan if

locating to a TIF district. A compact FID or portions of an FID may be located within a TIF district, thus allowing the broader use of this economic development tool in a food system.

Tax Abatements

Because of the language of Public Act 198 of 1974 (Plant Rehabilitation and Industrial Development Districts) being tailored for industrial development, a tax abatement may not readily apply to a local food hub or most food-related businesses (State of Michigan Legislative Council, 2009b). Though there may be a food-related business occupying a structure for industrial purposes (e.g., processing or distribution) as part of an FID, a food hub, as a single business entity, may not possess the qualifications necessary to receive tax exemptions (abatements) offered through legislation.

For example, the city of Lansing offers aid to developers working with investments related to manufacturing and/or high-technology projects (City of Lansing, 2008b). The tax abatement is suitable for those investments involving real property (i.e., real estate) and the purchase of personal property (i.e., equipment, machinery, and furniture), where the purpose and use is for manufacturing and/or high-tech activities (City of Lansing, 2008b).

Businesses eligible for the property tax abatement, as cited by the City of Lansing (2008b), include:

[...] industrial plants that primarily manufacture or process goods or materials by physical or chemical change. Related facilities of manufacturers such as offices, engineering, research and development, warehousing or parts distribution are also eligible for exemption. Also added to the industrial property definition is qualified high-technology business activity as defined in the Michigan Economic Growth Authority (MEGA) Act: advanced computing, advanced materials, biotechnology, electronic device technology, engineering or laboratory testing, medical device technology, product research and development and advanced vehicles technology. (PA 198 of 1974, para. 2)

It would be highly beneficial for a startup or newly-located business operating within an FID to seek out financial incentives via the Industrial Facilities Tax (IFT), which reflects savings in lieu of paying the property tax (City of Lansing, 2008b). Investment, job growth, and fiscal impact help negotiate the time period in which the abatement can be used (LEDC, 2009).

Food-related businesses that are a part of a larger food system located within urban territory would be most likely to benefit from the personal property tax abatement. The LEDC (2009c) states the abatement “[...] is only available to businesses that locate within a distressed core community like the city of Lansing” (Who section, para. 2). The LEDC (2009c) gives an example of the process for obtaining the abatement:

The Lansing EDC is approached by a company with patented technologies derived from research at Michigan State University, and they are looking for their first manufacturing facility to begin commercial production of their product. However, being a new company, they are attracted to locating in a township to save on their tax liability. Yet, the building and the work force in the city are clearly advantageous to business growth. The LEDC utilizes P.A. 328 for 12 years to offset all of the company's personal property tax liability on the new equipment and secure the company in the location that is most advantageous for business growth. (Personal Property Tax Abatement- PA 328 of 1998, Example Section, para. 4)

As stated prior, most food-related businesses would not readily qualify for tax abatements in the state of Michigan. The financial incentive is more so geared towards industrial firms that are rehabilitating the local economy within a community and that are spurs for investment and job growth. Though these may be characteristics of a food-related business, such may not possess all of the qualifying factors needed for the tax abatement. Production and distribution food hubs, however, may refine their business model and facilities to meet the standards outlined in Public Act 328 of 1998 in order to receive financial backing and support from the local unit of government.

Downtown Development Authority

For cities with no TIFA, EDC, or Local Development Financing Authority (LDFA), the establishment of a DDA would serve for coordinating administrative and executive plans between developers and the local unit of government. Any city, village, or township that has an area in its downtown zoned and used specifically for business is eligible to incorporate a DDA (MEDC, 2012a) under the DDA Public Act 197 of 1975.

The DDA may in some regards function very similar to that of a TIFA or BRA, as it delivers funding sources to developers. Upon establishment, the DDA is mandated to create a development plan, which outlines specific public improvements that are envisioned to take place within the DDA district. The development plan should include costs, locale, resources for implementing the development plan, along with a means for financing DDA activities (MEDC, 2012a).

Financing options available for a DDA, as outlined by MEDC (2012a), include:

- Tax Increment Financing (pursuant annual reports submitted to the local unit of government and to the State Tax Commission, as well as the adoption of a TIF Plan)
- Special assessments (e.g., an environmental impact assessment paid for by the developer)
- Revenue bonds

- Revenues from property owned or leased by the DDA
- Donations and grants to the authority
- Contributions from the local unit of government

In short, it would be highly beneficial for any business entity to seek the aid of a legislated body through the local municipality. A DDA, TIFA, BRA, LDFA, or like-body may be the source of knowledge for financial incentives. When developers are seeking to transition into a new location or redevelop existing property, tax credits, abatements, and TIF are useful tools for financing and maximizing available profit.

Use of Placemaking and Special Business Districts to Support Food Innovation Districts

Introduction to Placemaking and the New Economy

In order to promote the stability and growth of FIDs and food hubs, it is important to look at examples of similar districts and programs which already exist. These districts can have a wealth of information, planning tools, and characteristics which can be adapted to toolkit. Placemaking is a tool used to develop areas for various uses, and there are specific programs that can promote its purpose. The following section will look at several districts including SmartZones, Enterprise zones, and the Michigan Main Street Program as a means of placemaking.

With the fast pace of the new economy, technological and resource developments appear to have higher turnover rates. The turnover rates affect the adaptability of any place and the accommodations for residents and consumers. Products come and go quickly, as demonstrated with the average personal computer. The ability for municipalities and local governments to harness potential synergy between different firms yields a competitive advantage (Blakely, 2002). Businesses in the new economy that capitalize on newer technology are not only able to market their product in a more efficient and profitable manner, but also contribute to the placemaking of the area.

The *NWMCOG Community Placemaking Guidebook* (2012) elaborates on the definition of placemaking as:

“Placemaking” is a term that is not limited to one definition, rather it is associated with a wide range of community improvement strategies/initiatives. These include, but are not limited to, targeting urban and rural community investments that support improvements and expansion of their natural asset-based economies; expanding affordability and type of housing and transportation choices; preserving the scenic beauty of a place; increasing the visibility and connectivity of public art; marketing local products to attract tourists; providing broadband connection in all public places; and implementing “smart growth” practices that allow for appropriate growth that

mitigates the negative impacts of sprawl to maintain the identity of communities. (p. 9)

Placemaking entails the creation of distinctive places, whether through development or redevelopment. It also includes farmland preservation, which may be an outcome of developing local and regional food systems. Placemaking, which includes strategies that focus on community engagement and participation in the development process, can be achieved through various mediums. The ultimate goal is to create interactive, accessible, and memorable places for the users of the environment. For instance, streetscapes filled with retail typically offer friendly and intimate activities to bring together clutches of commerce to the area (Milne & Mosle, 2010).

By utilizing the principles and strategies of placemaking, local food systems may be integrated within both the social and economic aspects of a community. Urban gardening, retail courtyards, and even the downtown core all present opportunities for implementing placemaking (whether through public or private establishment).
Niche

Companies operating within an FID and under placemaking principles may cater to business crowds and nightlife. Servicing targeted consumers and creating a sense of place for them are both typical intents of companies implementing the placemaking tool.

The well-being of an FID may be supplemented with placemaking initiatives. Maintaining regard for the new economy and gaining access to emerging resources (i.e., raw material, skill, labor, technology, concepts) should be priorities when applying the placemaking as a tool.

The new economy should reflect implementations of placemaking wherever possible. With emerging food hubs and/or FIDs being sought after as a means of economic development, local governments are encouraged to note what level of technology is being used by businesses, how rapid they are able to meet demands and re-supply, and how interactive they are with their local community.

Michigan Main Street Program

Establishing a sense of place is critical in the success of creating workable districts and programs. People will choose to live and work in cities that have certain characteristics such as walkability, a safe environment, and a diverse mix of businesses to enjoy or work for. The Michigan Main Street (MMS) Program seeks to provide all of the aforementioned characteristics as well as other amenities. It supports downtowns and traditional commercial neighborhood districts by promoting and facilitating implementation of the Main Street Four-Point Approach in communities across the state of Michigan.

The Main Street Four Point Approach was developed by the National Trust for Historic Preservation in 1977 in response to continued threats to historic commercial architecture and economic activity in small-city downtowns. The Michigan Main Street Center works in cooperation with the National Main Street Center to provide resources and technical assistance (MSHDA, 2010, Organization section, para. 6). Since its creation in 2003, the Michigan Main Street Center has facilitated real results in participating communities by helping build partnerships and collaboration among stakeholders and encouraging historic preservation. The program promotes environmentally-sustainable redevelopment, integrates communities' cultural assets and fosters entrepreneurial development and downtown living.

The Main Street Four-Point Approach is a community-driven, comprehensive strategy that encourages economic development through historic preservation in ways that are appropriate for today's marketplace (MSHDA, 2010). The four points include:

1. Design
2. Economic Reconstructing
3. Promotion
4. Organization

The first focus, design, entails the enhancement of the downtown's physical environment by capitalizing on its most valued assets including historic buildings, creating an inviting atmosphere through attractive window displays, parking areas, building improvements, streetscapes, and landscaping.

The second facet of the Four-Point Approach focuses on instilling proper maintenance practices in the commercial district, enhancing the overall aesthetic of the district by rehabilitating historic buildings, encouraging appropriate new construction, developing sensitive design management systems, and integrating long-term planning. Economic restructuring includes strengthening a community's existing economic base while also expanding and diversifying it. By helping existing businesses expand and recruiting new businesses to respond to today's market, the Main Street Program helps convert unused spaces into viable properties and enhances the competitiveness of business enterprises.

The third point, promotion, includes marketing a downtown's unique characteristics to residents, visitors, investors, and business owners. The Main Street Program develops a positive, promotional strategy through advertising, retail activities, special events, and marketing campaigns to encourage commercial activity and investment in the area.

The last point, organization, involves all of the community's stakeholders, getting everyone working towards a common goal, and driving the volunteer-based Main Street Program (MSHDA, 2010). The fundamental organizational structure consists of a governing board and four standing committees. Volunteers are coordinated and

supported by a paid program director or Main Street manager. This structure not only divides the workload and clearly delineates responsibilities, but it also builds consensus and cooperation among the various stakeholders.

FIDs would benefit by adapting characteristics of a program such as the MMS Program. It could be altered to allow for an agriculturally-based and incentivized system to aid in the enhancement of the downtown's physical environment. By putting these businesses in historic buildings and promoting an inviting atmosphere through building improvements, streetscapes, and landscaping, the preservation of older buildings could be promoted. Improving the area's economy with new businesses would allow for a change in the appearance and perception of the area and encourage appropriate new construction. Integrating this system into the planning process would strengthen, expand, and diversify the community's economic base. By allowing portions of the MMS Program, unused spaces could be turned into viable properties and promote more competition between business enterprises within the city.

Michigan SmartZones

The use of SmartZones in Michigan to aid in technology-based business growth is a recent trend. Although the program no longer grants areas the title of a SmartZone, there are many characteristics the program possesses, including structure, which are similar to FIDs. The MEDC states that SmartZones, “[...] provide a distinct geographic location for technology-based firms, entrepreneurs, and researchers to locate in close proximity to all of the community assets that assist in their endeavors (MEDC, 2010, Michigan SmartZones section, para. 1). SmartZone technology clusters seek to promote resource collaborations between universities, industries, research organizations, governments, numerous community institutions, growing technology-based businesses, and jobs (MEDC, 2010).

When looking at the possible application of a SmartZone designation to an FID, it is important to have a firm understanding of what a SmartZone is and how it is used. According to the MEDC, a SmartZone is defined as an innovative, statewide technology business acceleration strategy to build entrepreneurial talent and infrastructure (MEDC, n.d.a). Every SmartZone includes technology business accelerators and incubators that provide the critical entrepreneurial and commercialization support services essential to growing start-up ventures. Business accelerators do just that: they speed up the development of start-up businesses with a variety of valuable services. These accelerators are designed to shorten the time required to attract capital, customers, or other resources (Ann Arbor USA, n.d.). In Michigan there are 15 SmartZones, each with its own unique qualities, which vary depending upon regional needs.

Figure 5.1: Michigan SmartZones

WHERE ARE THE SMARTS?



SOURCE: MICHIGAN ECONOMIC DEVELOPMENT CORPORATION

Source: The Center for Michigan, 2011

The SmartZone Program was established through a legislative change to an existing law and program. Through the 2000 amendment (Public Act 248) of the Local Development Financing Act 281 of 1986, the state designated SmartZones to encourage and stimulate the growth of technology-based businesses. This change allowed the use of TIFs, not just for traditional public infrastructure, but to support business incubators and the operations of these incubators. Revenue from TIFs are allocated for a specific purpose. This gave the communities a financial incentive to begin the discussions on establishing their respective SmartZones and also gave them a tool, leverage, and the attraction of other funds from local public and private institutions. This program was also significant because it allowed zones the ability to use TIF funds not only to *jump-start* these facilities, but also assist in maintaining them for 15 years.

The process of designating SmartZones included the MEDC negotiating and signing contracts with each individual community and its LDFA. The respective LDFAs wrote development and TIF plans subsequently approved by the respective local governments, and forwarded the plans to the MEDC for review. The plans were then forwarded to the state treasurer for final ratification of the tax capture. The development and TIF plans included a detailed explanation of the use of funds and source of the funds (please see the LDFA 281 of 1986 for specific criteria for writing development and TIF plans). At this time, the legislation does not allow for any more SmartZones in Michigan, but when the program was open to create new SmartZones, the process went as follows: MEDC released request for proposals calling for applications from municipalities interested in receiving SmartZone designation. At a minimum, the proposal had to include:

- 1) A defined vision and industry focus that took advantage of local resources;
- 2) A fully developed business plan;
- 3) Well-defined plans to attract major anchor tenants;
- 4) Support for new and small businesses in high-tech fields;
- 5) Clear community support;
- 6) Documented market feasibility;
- 7) Defined site for near-term development.

Highest priority would be given to proposals that met one or more of the following criteria:

- Committed major anchor tenants,
- Active support and involvement by a local higher education or private research-based institution
- An incubator facility
- Limited need for state funding beyond TIF, other government support, and clustering of two or more municipalities located within the same county under one LDFA.

It is important to distinguish that the SmartZone contract was between the municipality and LDFA. However, the municipality had to work with its local partners such as entrepreneurs, technology-based firms, and universities to create their proposal to become a SmartZone (R. Zator, personal communication, February 13, 2012).

SmartZones and business incubators operate in a similar fashion to FIDs and food hubs because they are used to promote a certain type of activity and industry. There appears to be a connection between a technology incubator and a food hub because they serve as a targeted place for all the different areas of technology and goods to be centrally located. In addition, both utilize a variety of entrepreneurs, producers, and other small businesses to create and distribute their goods and services. The only major part in which they differentiate is in their use of universities and fostering a relationship to help with the research, development, and aid (financial or

otherwise). FIDs and food hubs, as far as the research has shown, do not appear to utilize post-secondary institutions in a direct fashion, however collaborations of this sort may prove to be beneficial.

A majority of Michigan SmartZones are funded through the Michigan Pre-Seed Capital Fund which allows access to capital in the beginning stages of business development in order to curb the high initial costs of starting the enterprise. It targets companies statewide which are creating new technologies in areas such as automotive, manufacturing, and alternative energy.

Other Notable Michigan Business Districts

The MEDC also provides the state with other economic development zones and credits that incentivize growth and attract certain types of businesses. Examples of these include Michigan Renaissance Zones (RZ), Business Improvement Districts (BID), Principal Shopping Districts (PSD), Business Improvement Zones (BIZ), and Anchor Business Credits.

The zone which has components most relatable to FIDs is the Michigan Renaissance Zone or Geographic RZ. These are areas of the state that are designated as almost tax-free for any business or resident currently in or in the process of moving to a designated zone for a period of up to 15 years (MEDC, n.d.b).

Since its creation, the Renaissance Zone Act has been changed to focus more on smaller, rather than larger, geographic areas. This allows for the zones to center around project-specific and parcel-specific designations. Because of the zones are more specified, there are several types of Renaissance Zones which receive the same benefits from the state. They include Agricultural Processing Renaissance Zones (APRZ), Border Crossing Renaissance Zones (BCRZ), Forest Products Processing Renaissance Zones (FPPRZ), Michigan Strategic Fund (MSF) Designated Renaissance Zones (MSF RZ), Renewable Energy Renaissance Zones (RERZ), and Tool & Die Recovery Zones. Every project that would like to apply to become a Renaissance Zone (RZ) must first be examined by the MEDC to determine its eligibility before an application is given to the area under consideration. The application process is a combined effort of the qualified governmental unit and the company (to include the property owner if not the company). Development Agreements are required for all new designations, excluding Tool & Die Recovery Zones (MEDC, n.d.b).

Out of all the aforementioned types of RZs, APRZs are the most relatable to FIDs. This is because they are used to encourage agricultural processing operations and grow the industry throughout the state. These APRZs differ from the previous RZs because they are required to contain a company's agricultural processing facility and can be located anywhere in Michigan (MEDC, n.d.b). The MEDC defines an agricultural processing facility as:

[...] one or more facilities or operations that transform, package, sort, or grade livestock or livestock products, agricultural commodities, or plants or plant products, excluding forest products, into goods that are used for intermediate or final consumption including goods for nonfood use, and surrounding property. (MEDC, 2011, Definition section, para. 2)

In order to start the application process, a community or company officials must meet with an MEDC business development manager and the Michigan Department of Agriculture's Agricultural Development Division staff to assess the reasoning and specifics of the project. An APRZ application is then sent to the MEDC for further processing. The application expresses the beneficial economic impact of the proposed zone on the local government and the state's agricultural community (MEDC, 2011). The APRZ then goes into effect when the Michigan State Administrative Board approves it and the city has approved of the tax abatements the zone creates. Taxes that businesses in the zone will not have to pay include the Michigan Business Tax, state education tax, personal and real property taxes, and certain local income taxes.

Enterprise Zones

Many cities seek to bolster their local economy and promote the growth in their downtowns. There are many ways in which planners can do this. One method is using an enterprise zone. Although they are no longer used in Michigan (replaced largely by RZs after 1996), enterprise zones are used in many different states throughout the country. They are intended to encourage development in blighted neighborhoods through tax and regulatory relief to entrepreneurs and investors who launch businesses in the area. Enterprise zones are areas where companies can locate free of certain local, state, and federal taxes and restrictions. Examining the incentives and process used with enterprise zones can provide a foundation for incentive programs when trying to establish FIDs.

Following the adoption by the U.S. Congress of the Empowerment and Enterprise Community Act of 1993, enterprise zones have been designated in a series of states at varying levels and sizes. Some sites comprise 50 acres, while others cover entire counties. Many enterprise zones encourage manufacturing and industry, however, in other locations, retail and services are supported as well. Three distinct elements of enterprise zones is that they are geographically targeted, they focus on areas of economic depression and need of regeneration, and investment of the project relies on the private sector (Peters & Fisher, 2002). The goals of enterprise zones, in simple form, are to create new businesses and permanent job positions in areas of economic despair through reducing or eliminating government taxes and regulations (Williams, 1982).

Four key areas which are commonly critiqued include: general effectiveness, the influence of development incentives, displacement of people, and job quality and stability. Wilder and Rubin (1996) found that there is not clear evidence that the zone impacts residents of the area. Jobs created are also typically low-paying (Bondonio

& Greenbaum, 2007; Wilder & Rubin, 1996). Wilder and Rubin's examination of enterprise zones struggled to find a substantial connection between economic activity and development incentives. However, it could be concluded that existing firms in the zone took advantage of incentives more regularly than newly-joined businesses. Bondonio and Greenbaum (2007) established that incentives tied to job creation and requiring a strategic local economic development plan had a greater impact on existing businesses over new enterprises. Lack of resources and inadequate finances are a typical constraint for enterprise zones (Dowall, 1996). An additional critique of enterprise zones is that incentive programs would often benefit new establishments at the expense of previous businesses that would close or move (Bondonio & Greenbaum, 2007).

In examining the most successful of enterprise zones, Erickson, Friedman, and McCluskey et al. found four distinct criteria for success:

1. The zone encompassed an area that was still economically viable.
2. Zone designation served as a catalyst and/or stabilizer, but was not the sole determining factor in revitalization.
3. The number and variety of zone incentives added to the programs' effectiveness. However tax incentives (e.g., for property, inventory, and sales) were the most frequently used.
4. Strong local support from the private and public sectors increased effectiveness. (as cited in Wilder & Rubin, 1996, p.480)

These indicators have the potential to be used in the creation of successful food innovation districts.

Conclusion

Based on current Michigan legislation, FIDs should incorporate various incentivized plans provided by organizations such as the MEDC, a local EDC, BRA or TIFA. Tax and clustering strategies assist in minimizing financial burdens for businesses locating within specific geographic locale. They also are useful in making areas more attractive for development. In Michigan, there are several types of incentive plans that can be modified or adapted for FID implementation.

The Michigan SmartZone is a comparable model for establishing the FID. Offering incentives based on various criteria is perhaps the most effective way to assist in their establishment and regulation. By utilizing the SmartZone approach, which includes criteria to establish the SmartZone, there should be a greater chance for success in the creation and longevity of FIDs. Since enterprise zones are a form of economic development policy, they have steps for creation and base requirements, which may also be adapted by FIDs. However, for such a designation to be made feasible under current law in Michigan, either a new law or amendment would be necessary.

In a similar light, Agricultural Processing Renaissance Zones relate very closely to FIDs because of their primary focus is encouraging agricultural processing operations and industry growth in Michigan. Like SmartZones, APRZs require a approval process by governing bodies and review from various entities such as the MEDC and Department of Agriculture. The advantage of adapting APRZs to FIDs is that the language and the industry are all the same, unlike SmartZones which deal with technology-based industry.

Summary

Establishing FIDs in Michigan and granting businesses incentives could be a viable strategy for economic development. Using agglomeration as a tool will reduce transport costs between clustered facilities, assimilate businesses in need for employment growth, and offer a targeted-based shopping experience for consumers.

In the state of Michigan, many programs exist which incentivize business growth, offset initial business costs, and allow the levying of taxes for certain periods of time. For businesses locating to a defined FID, the incorporation of local authorities such as the DDA, BRA, EDC, or LDFA may offer partnerships to business owners who are unfamiliar of available incentives. The MEDC has many programs such as the Michigan Main Street Program, SmartZones, and Renaissance Zones, which all utilize aspects of agglomeration and tax incentives to aid in the growth of local economies.

The Michigan Main Street Program helps a city increase its appeal to residents and visitors visually and economically. It utilizes a four point approach that looks at design, economic reconstructing, promotion, and organization. Utilizing the approach, cities are able to create successful downtowns and establish a sense of place.

Clusters utilizing SmartZone technology seek the promotion of partnerships between multiple institutions such as universities, governments, community organizations, growing technology-based businesses, and industry sectors. By adapting the SmartZone, FID implementation may benefit from the clustering of resources (e.g., human capital, education, *hard* and *soft* infrastructure).

Renaissance Zones focus on smaller geographic areas, and are therefore able to center on project and parcel-specific developments. Agricultural Renaissance Zones yield a direct relation to FIDs because of their affiliation with agricultural-related businesses. Both ARZs and FIDs seek to encourage agricultural operations to advance the food industry throughout the state.

Last, the success of enterprise zones depends on the area, zone designation, the number and variety of zone incentives, and strong local support from the private and public sectors. Although this program is no longer available, it still has elements which may assist in the creation and implementation of FIDs. Such elements

include creating a way to garner local support for the program, create incentives to attract business to the area (e.g., tax incentives), and creating a zone which allows for the types uses an FID requires. Borrowing the above concepts may assist in the creation of economically-sound and flourishing FIDs.

Chapter 6 - Regulatory and Non-Regulatory Strategies for Food Innovation Districts

Introduction

In this chapter, zoning, along with additional planning methods were explored to determine which options would most effectively assist in the formation and regulation of FIDs. As noted by Dr. E. Strauss at MSU, such food-related businesses may require special zoning considerations (personal communication, March 22, 2011). Additionally, hubs and FIDs might be organized into particular zoning districts to in order to capture the benefits of economic concentration (i.e., agglomeration). In attempting to form this report, multiple zoning types were examined side-by-side to determine whether they would be effective in advancing FIDs. The following chapter outlines the advantages and disadvantages to each possible zoning strategy for FID formation and control. Later in this chapter, additional concepts to consider, such as master plans, subplans, design guidelines, incentives, and eco-industrial parks are discussed in relation to FIDS.

The Importance of Planning and the Effectiveness of Zoning

Horst et al. (2011) touch on the importance and role of planners in developing food hubs and specifically mention that, “[t]hey [planners] can identify zoning barriers and suggest creative solutions” (p. 223). This chapter discusses the numerous regulatory and non-regulatory tools available to communities. However, as many planners are well aware, goals can be established and plans written, but this does not guarantee that they will be realized.

Zoning may allow uses to locate in special areas of a jurisdiction, but this does not necessarily ensure that uses will occur. Zoning is only one component of the many required to assist in FID development. Zoning can allow for creativity in organization of activities, goods, and services by mixing compatible uses, minimizing conflicts arising from abutting uses, and directing and organizing less appealing uses to minimize conflicts and maximize the overall value of property.

It is the role of the planner to guide a community in choosing the most appropriate regulatory tool. The following sections offer possible choices for communities. Methods can be mixed and revised to tailor these concepts to each area’s needs.

Barriers to Zoning for Food Innovation Districts

Associated with food production are infrastructure demands, as discussed in Chapter 2. While many aspects of infrastructure are understood, how to zone for infrastructure demands is still a developing food system planning component.

In regards to the location of food-related services and activities Pothukuchi and Kaufman (2000) discovered in their survey of 22 planning agencies in the U.S., that “[m]ost planners’ responses to open-ended questions indicated that they handled issues related to location, design, or regulation on a case-by-case basis, highlighting the lack of a systematic approach to food system issues” (p. 116). This report created by the MSU Practicum Team provides a preliminary assessment of the myriad approaches to planning for food. Sharing these strategies will assist in creating an organized system for dealing with food-related issues.

In reviewing zoning ordinances, the more intensive uses such as processing or warehousing may require special considerations. Planning may need to consider accommodation for larger trucks, increased traffic, access to main roads, and additional driveways. Processing facilities and other intensive food uses may require a significant amount of electric and water to power essential features of the machinery, as well as sewer to take waste away from the facilities. In the age of technology, the option to include internet or towers should also be considered. Zoning helps take these aspects into consideration, as certain land use categories may be poorly equipped to address these special requirements.

Considering the aforementioned uses, a characteristic of FIDs that can make them challenging to plan for is the mix and intensity of uses within the district. The economic strategies included in Chapter 5 discuss the need to agglomerate food-related businesses. How can traditionally incompatible uses be agglomerated?

In the American Planning Association (2010) *Practice Urban Agriculture* guide created by N. Mukherji and A. Morales, numerous urban agricultural regulatory implications are examined. Many of these concerns should be explored further when creating an environment conducive to food innovation:

- Landscaping regulations
- Including urban agricultural uses in zoning to help legitimize and protect such uses
- Thinking of urban agriculture based on the extent and intensity of use
- Consideration of regulatory language limiting home occupation
- Soil contamination issues
- Allowance of accessory structures

The research of Mukheri and Morales (2010) suggests that there are limits to zoning that can be remedied through modification to incorporate urban agriculture land use. Their research points out that typical zoning does not favor urban agriculture. They suggest that urban agriculture be permitted as either a special use or district. Their research points to categorizing different potential agricultural activities to the extent that the use will cover and how intense the use is. Table 6.1 depicts Mukheri and Morales' (2010) categorization of the types of uses:

Table 6.1: Agricultural Uses

	Intensive	Less Intensive
Extensive in Area	Rural or periurban farms and associated agricultural activities	Backyard and community gardens, limited livestock, and farmstands
Less Extensive in Area	Urban farms, farmers markets, and composting operations	Backyard and community gardens

Source: Mukheri & Morales, 2010, p. 5

The authors suggest possible strategies to help permit and encourage each of type of agricultural use (i.e., extensive, less extensive, intensive, less intensive). For extensive/intensive uses, they propose that most outlying areas of the city may permit these activities as agricultural uses through a permissive district or through a specifically-designated use. For less extensive/intensive activities, they suggest that these types of uses occur on occasion through “[...] special arrangements with neighborhoods and government or agriculture districts that became surrounded by development [...]” (Mukheri & Morales, 2010, p. 6). Creating a specific district or utilizing special, conditional and permissive uses can also foster this type of agriculture.

For areas that utilize an extensive/less intensive agricultural use, Mukheri and Morales found that, “[w]hile intensive urban agriculture can be addressed with specific district designations, it is impossible to address urban agriculture completely without looking at agricultural uses for districts not specifically designated as agricultural” (2010, p. 6). They suggest thinking of new approaches to restrictions in order to allow these types of uses fully or in a limited capacity. For instance, their research finds that community gardens can be found as a permitted use. The use of nuisance ordinances, as well as modifying zoning code has been found as an effective means to limit and maintain the number of animals that can be owned in specific areas (Mukheri & Morales, 2010).

A current concern for Michigan is the Michigan Right to Farm Act (RTFA) (Act 93 of 1981). The act was established to protect farms from nuisance litigation.² Pothukuchi (n.d.) explains the legislation well, stating:

The Act sets forth so-called “generally accepted agricultural management practices” (GAAMPs) and protects farms from nuisance complaints, if they conform to GAAMPs, which are voluntary standards. To prevent local governments from enacting ordinances to restrict future farm practices that may cause nuisance, RTFA also expressly pre-empts any jurisdiction lower than the state from enacting ordinances, regulations, or resolutions that conflict with the provisions of the Act or with GAAMPs. This is only one of the more pernicious aspects of the RTFA. (para. 6).

But today, as the author states, if Michigan cities allow for commercial agriculture, they will be subjected to the regulations of the act (n.d.). This *trumping* of local ordinances is a troublesome aspect of the act. Currently, individuals and groups are working to resolve this issue.

Food Innovation District Impacts

In considering regulatory approaches to FIDs, it is important to first determine what the requirements are for an FID to exist, regulation definitions, and the possible impacts an FID could have on the surrounding area. Based on the research in this report, most FIDs will require the following amenities when functioning with all desirable services. Table 6.2 shows uses of an FID, how that use may be defined, appropriate land use categories, and possible impacts. The first column, *FID Characteristics*, are elements that an FID may contain. The second column, *May be regulated or defined as:*, states how the element may be defined in a zoning ordinance. The third column, *Common District*, are the zoning districts under which that use is normally found. The last column, *Possible Impacts*, lists the impacts that should be considered when planning for the stated use. Being aware of these impacts will help craft better-equipped zoning ordinances.

² “AN ACT to define certain farm uses, operations, practices, and products; to provide certain disclosures; to provide for circumstances under which a farm shall not be found to be a public or private nuisance; to provide for certain powers and duties for certain state agencies and departments; and to provide for certain remedies for certain persons” (Act 93 of 1981).

Table 6.2: FID Characteristics, Regulation, Zoning, and Possible Impacts

FID Characteristics	May be regulated or defined as:	Common districts	Possible Impacts
Aggregation – Distribution	Wholesale/storage/distribution	Industrial, Commercial	Heavy trucks, street access, traffic, lighting, hours, noise, health and safety, possible nuisances
Business Management Services/ Marketing	Professional services, business services	Commercial, office districts	Parking
Community Kitchen	Community facilities	Commercial, residential	Parking, traffic, waste disposal
Education	Community facilities	Commercial, Residential	Parking, traffic
Food Production (i.e., community gardens, market gardens, farms)	Agriculture, community gardens	Agricultural, Residential	Hours, accessory buildings, compost*, available land, livestock species, health and safety, possible nuisances, maintenance
Processing	Processing, food processing	Industrial, Agricultural	Heavy trucks, street access, traffic, lighting, hours, noise, emissions, health and safety, waste disposal, possible nuisances
Research and development (i.e. kitchen incubators)	Research facilities	Commercial, Residential	Parking, traffic, waste disposal
Restaurant	Retail	Commercial	Parking, traffic, lighting, hours, waste disposal
Retail/consumer sales/markets	Retail, specialty shops, farm markets	Commercial, Agricultural, Residential	Parking, traffic, lighting, hours, street access, maintenance, accessory buildings*

*Borrowed from ENP and Associates, n.d.

Source: Original table developed by S. Lucas, 2012 and expanded upon by the MSU Practicum Team, 2012

The goal of the chosen regulatory option should be to help minimize and mitigate some of the possible impacts the above uses could have on neighboring properties. How can planners soften the effect a distribution center could have on a retail district? How can food production be incorporated into residential? By utilizing certain regulatory methods, like placing conditions on certain activities, uses may be incorporated into a wider variety of zones.

Food Innovation District Zoning Categories

In supporting the development of FIDs, certain zoning categories may be more appropriate for uses required by such districts than others. The following zoning categories may be better suited to deal with the above possible impacts in Figure

6.2. The following definitions have been borrowed from M. Davidson and F. Dolnick's (editors) *A Planners Dictionary* (2004):

- Agricultural – **agricultural activity** – Land used exclusively as a bonafide agricultural operation by the owner or tenant. The use of land for agricultural purposes including farming, silviculture, viticulture, fish culture, animal and poultry husbandry, and the necessary accessory uses for packing, treating, or storing the produce, provided that the operation of the accessory use is clearly incidental to the agricultural activity. The business of garbage feeding of hogs, fur farms, or the raising of animals for use in medical or other tests or experiments is excluded. (*Frederick, Md.*) (p. 53)
 - Agricultural zoning will allow for commercial or large-scale food production.
 - Agricultural districts may allow for commercial-scale farms or raising livestock or crops
- Commercial – **business** – (See also **commercial; retail**) Any lawful commercial endeavor to engage in the manufacturing, purchase, sale, lease, or exchange of goods, and/or the provision of services. (*Thornton, Colo.*) (p. 99)
 - Commercial may be appropriate for non-industrial uses, unless industrial uses are self-contained and do not create nuisances for the surrounding area.
 - FIDs can utilize commercial zones for retail (including markets) of local products and offices conducting food-related business.
- Industrial – **industrial district** – That portion of the city with designated land uses characterized by production, manufacturing, distribution, or fabrication activities. Ordinarily these areas have few pedestrians and a low parking turnover, but there is a large amount of truck and trailer traffic. Those portions of the city with the following designations are considered for purposes of the street standards and subdivision regulations as industrial: light industry, medium industrial, and heavy industrial. (*Renton, Wash.*) (p. 229)
 - Industrial is most appropriate for uses that may be detrimental to surrounding residential or commercial districts, like processing facilities, which may produce smoke or noise.
 - In Traverse City (2009a), a facility that, for example, cans local organic produce could open a commercial-scale facility in the Industrial District.
- Mixed-use- **mixed-use development** – (See also **split zoning**) A tract of land or building or structure developed for two or more different uses such as, but not limited to, residential, office, manufacturing, retail, public, or entertainment. (*Schaumburg, Ill.*) (p. 272)

- Mixed-use has the advantage of combining multiple, compatible uses into one district.
- Combinations of uses may be beneficial to allow for a wider variety of food-related businesses. The Charter Township of Garfield (2012) has mixed retail, office, and traditional industrial in their Mixed-Use Industrial Business District. In this district, a business could have their wholesale facility and distribution center, as well as apply for a special use permit for processing and low-volume retail. This way, the business could process raw goods, store them, sell to the public, and ship out large quantities.
- Residential – **residential district** - A residential development or a mixture of residential and commercial establishments characterized by a few pedestrians and a low parking demand for turnover at night. This definition includes areas with single-family homes, townhouses, and apartments. *Renton, Wash.*)
 - Residential would be accommodating to uses that exercise limited hours, require minimal parking, produce little traffic, and are almost unnoticeable in a neighborhood setting. Smaller-scale or home-based occupations may be more appropriate for residentially-zoned districts. Community kitchens, research facilities, and gardens could be incorporated into such districts under special use, in order to mitigate possible impacts.

Food Innovation District Zoning and Possible Development Standards

Table 6.2 shows the uses of FIDs, how that use may be regulated or defined, common districts in which the use is found, and possible impacts. However, impacts can be minimized with the use of additional zoning standards, sometimes called development standards, design standards, or supplemental regulations (S. Lucas, Personal Communication, April 10, 2012). These standards typically apply to certain types of developments, often including commercial developments, and address issues “[...] such as off-street parking, landscaping, signs, access management, and floodplains” (MAP, 2011, p. 23). Additional standards may be included in an ordinance to address issues specific to a particular use. An example of a development standard can be seen in Figure 6.1, which shows that roadside stands are permitted uses provided that the certain requirements are met. For example, according to the Garfield Township Zoning Ordinance (2012) the owner of the property on which the stand is located is the only individual able to sell products from a roadside stand.

Figure 6.1: Garfield Township Zoning Ordinance Excerpt

Section 6.10.3 Uses Permitted Under Special Conditions: The following uses of land and structures shall be permitted, subject to the conditions hereinafter imposed for each use.

- (1) Customary home occupations as specified for R-1A Districts, Article VI.**
- (2) Roadside stands selling products grown by the owner of the property on which the stand is located, PROVIDED that contiguous space for the parking of customers' vehicles is furnished off the public right-of-way at a ratio of one (1) parking space for each fifteen (15) square feet of roadside stand floor area.**

Source: The Charter Township of Garfield, 2012, 2012, § 6.10.3

Table 6.3 shows how possible impacts can be minimized with the use of development standards. The MSU Practicum Team believes these standards may help in mitigating the possible impacts of FIDs on the surrounding land uses. Standards located in industrial, manufacturing, agricultural, and other uses in ordinances from members of NWMCOG, have been used to develop Table 6.3. The first column, *FID Characteristics*, lists the different activities that may be found within FIDs. The second column, *Special Considerations for FIDs*, list concerns raised while exploring development standards found in the ordinances cited next to each standard. The table is meant to make communities aware of how possible food-related impacts may be dealt with.

Table 6.3: Special Considerations for FIDs

FID Characteristics	Special Considerations for FIDs
Aggregation – Distribution	<ul style="list-style-type: none"> • Minimum lot size for industrial properties (Leelanau Township, 2011, § 8.5). • Access driveways for industrial properties (Leelanau Township, 2011, § 8.5). • Require buffers between adjacent property.
Business Management Services/Marketing	<ul style="list-style-type: none"> • These activities are thought to be generally non-invasive and should be adequately addressed in the jurisdiction’s ordinance; these FID activities should not require additional development standards.
Community Kitchen	<ul style="list-style-type: none"> • These activities are thought to be generally non-invasive and should be adequately addressed in the jurisdiction’s ordinance; these FID activities should not require additional development standards.
Education	<ul style="list-style-type: none"> • These activities are thought to be generally non-invasive and should be adequately addressed in the jurisdiction’s ordinance; these FID activities should not require additional development standards.
Food Production (community gardens, market gardens, farms)	<ul style="list-style-type: none"> • Minimum parcel size for a certain number of animals in agricultural district (Leelanau Township, 2011, § 4.2). • Allowance of accessory uses (Leelanau Township, 2011, § 4.3). • Allowance of home occupations and businesses (Leelanau Township, 2011, § 4.3). • Support organic practices (City of Frankfort, 2011, § 8206.02). • Require individuals to have possession of written permission from property owner on which community garden is located (City of Frankfort, 2011, § 8206.04).
Processing	<ul style="list-style-type: none"> • Regulate noise level (Acme Township, 2011, § 9.20.2). • Require use of enclosed buildings (Acme Township, 2011, § 9.20.2). • Require outdoor storage be screened with minimum setback from residential districts, otherwise require enclosed buildings for material processing and warehousing (Acme Township, 2011, § 9.20.2). • Require information on “[t]he proposed number of shifts to be worked and the maximum number of employees on each shift” (Acme Township, 2011, § 9.19.1.4). • Consider fumes/gases, smoke, odor, heat, glare, vibrations, radiation/radioactive materials, explosive substances (Acme Township, 2011, §§ 9.19.1 – 9.20.2). • Require buffers between adjacent property.
Research and development (i.e. kitchen incubators)	<ul style="list-style-type: none"> • Consider parking and road use in residential. • Consider adopting standards as detailed under <i>Processing</i>, depending on type of research (i.e., research that produces odor vs. non-intensive research).
Restaurant	<ul style="list-style-type: none"> • These activities are thought to be generally non-invasive and should be adequately addressed in the jurisdiction’s ordinance; these FID activities should not require additional development standards.
Retail/consumer sales/markets	<ul style="list-style-type: none"> • Require roadside stands sell regionally grown or processed agricultural items (Peninsula Township, 2009, § 6.7.2).

Source: MSU Practicum Team, 2012

Choosing a Zoning Method

Zoning methods were explored further to determine their effectiveness in regulating and promoting FIDs. Each zoning method is first defined, used in a working example where applicable, and then the associated advantages and disadvantages are discussed. How the zoning type can be used for FID planning is also discussed. The zoning concentration potential, that is, how successful the method is in agglomerating uses is also stated. Table 6.4 organizes each zoning method and its qualities. While this table is not an exhaustive list of possibilities, it does well in capturing some of the most feasible options for FID regulation. The table is ordered by the option most likely to yield a concentration of similar uses (i.e., agglomeration), with the perhaps most effective options listed higher on the table.

Table 6.4: The Practicality and Advantages/Disadvantages of Zoning Types

Zoning Type	Concentration Potential (i.e., agglomeration)	Practicality of Implementation	Advantages of Zoning Type	Disadvantages of Zoning Type
Permitted Use (e.g., in commercial or industrial zones)	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Once incorporated into ordinance, no cumbersome approval process 	<ul style="list-style-type: none"> Requires little maintenance once incorporated into zoning 	<ul style="list-style-type: none"> Little control over uses once included in ordinance Because no extraneous approval process, municipality <i>must</i> be specific in allowed uses
Planned Use Development	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Appropriate for a municipality with sufficient zoning staff/expertise 	<ul style="list-style-type: none"> Incentives can easily be incorporated into PUD ordinance Flexibility in site design 	<ul style="list-style-type: none"> Long approval process
Special Zoning Ordinance (e.g., Green Zone Planned Development District, see page 83)	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> Requires specific ordinance and extensive community involvement 	<ul style="list-style-type: none"> Incorporates community goals into zoning Can help foster special goals, like sustainability, into community development 	<ul style="list-style-type: none"> Thorough process involved with creation of ordinance Financial constraints
Special Use	<ul style="list-style-type: none"> Moderate 	<ul style="list-style-type: none"> Appropriate for a municipality with sufficient zoning staff/expertise 	<ul style="list-style-type: none"> Gives extra protection from potentially detrimental uses 	<ul style="list-style-type: none"> Requires extra attention and longer approval process on an individual basis
Overlay	<ul style="list-style-type: none"> Moderate 	<ul style="list-style-type: none"> Once created, can be applied over multiple zones. A valuable tool for communities with traditional land use zoning. 	<ul style="list-style-type: none"> Allows additional uses over multiple districts Grants more flexibility or can restrict underlying zoning Incentives could be included in ordinance 	<ul style="list-style-type: none"> Gives more flexibility to zones but does not require that uses take advantage of extra freedom (e.g. food-related businesses <i>can</i> locate in district, but do not <i>have to</i>)
Conditional Rezoning	<ul style="list-style-type: none"> Low 	<ul style="list-style-type: none"> Appropriate for a jurisdiction with sufficient zoning staff/expertise 	<ul style="list-style-type: none"> Granted for a limited amount of time Jurisdiction can reject the application to rezone 	<ul style="list-style-type: none"> Allowing one rezone could open the door to additional requests Must be cautious to not spot zone

Source: MSU Practicum Team, 2012

A Note on Form-Based Code

Berke, Godschalk, Kaiser, and Rodriguez (2006) suggest that form-based code pays closer attention to the “[...] microscale [...]” (p. 453). As Berke et al. explained, form-based code regulates design rather than uses, as traditional zoning does (p. 454).

When dealing with FIDs, form-based code could allow an area more flexibility in the internal uses of buildings, and therefore, perhaps more food-related uses could be incorporated throughout the city. However, in defining a district dedicated to food, form-based code may need to be joined with another type of zoning or other regulatory options. Incentives may be an appropriate option to encourage food-related uses to agglomerate.

Permitted Use

Permitted and special uses are both often allowed through local zoning ordinances. A permitted use is a use by right and requires only a “[...] simple application process” (NWMCOG, n.d.b, p. 11). For example, Figure 6.2 is an excerpt from the Traverse City zoning ordinance (2009a) Industrial District. Listed under Uses Allowed are the permitted uses for the industrial zone. Included under this section is manufacturing, specifically bakery products or processed fruits and vegetables. By right, a food-related manufacturer could locate in the Traverse City industrial zone and process these goods.

Figure 6.2: Traverse City Zoning Ordinance Excerpt

<ul style="list-style-type: none">• Manufacturing or processing of:<ol style="list-style-type: none">(1) Apparel and other finished products made from fabrics and similar materials;(2) Bakery products;(3) Beverages;(4) Canned, frozen and preserved fruits, vegetable and food specialties;(5) Dairy products;(6) Electronic and other electrical equipment and components;(7) Fabricated metal products, except machinery and transportation equipment and except ordnance and accessories;(8) Food preparations and kindred products - miscellaneous;		
kstroven	119	2011-C Replacement

Source: City of Traverse, 2009a, § 1354.01

It is of course a possibility that a community could design a zone that caters to the particular needs of an FID. Existing zones such as industrial and commercial may already allow by right many of the activities that are required by an FID. The advantage to permitted uses is that they require limited government involvement. Once the conditions are included in the ordinance, if the applicant meets the requirements, they will be approved. This ease of approval can also be considered a disadvantage because a municipality will not have control over modifying or denying

proposals if the requirements are met. Zoning ordinances must be exact and precise in listing the uses that are desirable and allowed in the area.

Because a special zone can be created solely for food-related uses through the utilizing permitted use, the concentration potential is high. The zone could be restrictive in specifying which food uses are acceptable. Food-related businesses can easily be brought together in a zone specifically designed for food.

Planned Unit Development

Planned unit development (PUD) zoning “[...] is a development process that ties a site plan to zoning approval and allows for modification of zoning standards where innovative design can achieve significant benefits for the community” (MAP, 2011). Additionally, “[...] the entire site plan is reviewed at one time [...]” (Levy, 2009, p. 160). When a parcel is defined as a PUD, it is subject to the PUD zoning ordinance, including the criteria that warrant approval, drafted by the municipality (Act 110 of 2006). A PUD will be allowed when a parcel is for instance, a certain number of acres (Levy, 2009). Levy (2009) states “[s]ome PUDs are residential, and some are entirely commercial. In many cases, however, PUDs contain a greater mix of uses than would be permitted under conventional ordinance” (p. 160). As stated in the Michigan Zoning Enabling Act, PUD ordinances can offer “[...] flexibility in the regulation of land development [...]” (2006, MCL 125.3503).

PUDs are defined in the Michigan Zoning Enabling Act (2006) with the following limitations:

2) The legislative body may establish planned unit development requirements in a zoning ordinance that permit flexibility in the regulation of land development, encourage innovation in land use and variety in design, layout, and type of structures constructed, achieve economy and efficiency in the use of land, natural resources, energy, and the provision of public services and utilities, encourage useful open space, and provide better housing, employment, and shopping opportunities particularly suited to the needs of the residents of this state. The review and approval of planned unit developments shall be by the zoning commission, an individual charged with administration of the zoning ordinance, or the legislative body, as specified in the zoning ordinance.

(3) Within a land development project designated as a planned unit development, regulations relating to the use of land, including, but not limited to, permitted uses, lot sizes, setbacks, height limits, required facilities, buffers, open space areas, and land use density, shall be determined in accordance with the planned unit development regulations specified in the zoning ordinance. The planned unit development regulations need not be uniform with regard to each type of land use if equitable procedures recognizing due process principles and avoiding arbitrary decisions are followed in making regulatory decisions. Unless explicitly prohibited by the planned unit

development regulations, if requested by the landowner, a local unit of government may approve a planned unit development with open space that is not contiguous with the rest of the planned unit development. (MCL 125.3503)

Figure 6.3 shows how Leelanau Township (2011) has incorporated PUDs into its zoning ordinance for lots of at least 40 acres, as well as requiring that the PUD utilize two different land use types. In addition, Leelanau Township requires as a condition to the allowance of a PUD, that the development provide for “[...] recognizable and substantial benefits to the ultimate users of the project and to the community” (§ 14.4.A). For example, the PUD must allow for the preservation of open space (Leelanau Township, 2011).

Figure 6.3: Leelanau Township Zoning Ordinance Excerpt

B. Site Area and Control - The minimum site area necessary to be considered for a PUD shall be forty acres (40). If the PUD consists of multiple parcels, they must be contiguous. The existence of a public road dividing parcels or lots included in the proposed development shall not be a basis for the disqualification of contiguity. The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project in conformity with the Ordinance and the specifications of the PUD approval.

C. Mixed use - The PUD shall consist of at least two permitted zoning district principal uses to qualify for consideration. Two or more different types of housing, including, but not limited to, single-family dwellings and multiple family dwellings, may qualify as a PUD. A minimum of 50% of the land area not preserved as dedicated open space, shall consist of residential uses.

Source: Leelanau Township, 2011, §§ 14.4.B-14.4.C

The advantage to utilizing PUD zoning is the innovation and flexibility in site design (Levy, 2008, p. 160). PUDs can help preserve the natural environment, incorporate mixed-use, or diversify the housing market (MAP, 2011, p. 50). However, planning practitioner S. Lucas mentions the “[...] complexity in approving and implementing PUDs[.]” as well as the “[...]ong approval processes” (personal communication, March 28, 2012).

The reason PUD zoning is mentioned in this report is because of the ease of applying incentives to PUD developments. In regards to FIDs, PUD designation could give a developer more design freedom when creating FID elements such as a processing facility and distribution center. Perhaps the use is made even more efficient with the elimination of minimum parcel size, so that the uses can be located closer together. This clustering effect is why the PUD zoning method has a potentially high concentration potential.

Creating a New Zone: Green Zone Planned Development District

In today’s age of fast-paced growth, many communities may strive to create an atmosphere for sustainable development while retaining the rural character of the area. An example of a zoning ordinance that is tailored to fit community needs while keeping sustainability in mind is the Green Zone Planned Development District (2011):

Williamstown Township, Michigan is taking a unique approach to this challenge with the development of a new 21st Century zoning ordinance. In creating this new zoning ordinance, the Board of Trustees and Planning Commission of Williamstown Township with support from an Energy Efficiency and Conservation Block Grant from the State of Michigan, hosted an innovative competition designed to see how this new zoning ordinance language may be interpreted by those in the field of planning and development. (Williamston Township, 2010, para.1)

The community proceeded with development plans for research and technology services, residential, and mixed-use based on the ordinance that was developed by the community (Williamston Township Zoning ordinance, 2011).

The Green Zone was developed as a workable/enforceable zoning ordinance to satisfy the needs of the community while incorporating concepts and practices in sustainable development, new urbanism, smart growth, and green building and design (Williamston Township, 2010).

Figure 6.4: Green Zone Planned Development District Excerpt

Section 25.01C Statement of Purpose

The Green Zone Planned Development District (the “Green Zone”) is a diverse mixed use zoning district created to guide development of a portion of the Grand River corridor. Historically, land along Grand River Road, from approximately Zimmer Road to Meridian Road, has been used predominantly for agriculture. Historically, when agricultural uses cease, land transitions to rural open space. This transition provides opportunities for future development. By creating the Green Zone, the Township seeks more sustainable development than might be achieved under conventional zoning. Such development would be characterized by, for example, conservation of natural areas through compact design; preservation and use of native vegetation in landscaping; permeable paving; clearing and grading to minimize site disturbance; more narrow driving lanes; integrating bio-retention swales in parking lots, and similar measures. The regulations and standards that follow are intended to further the principles of sustainable development as applied to the Grand River corridor, with the overall goal of providing a quality living and working environment for residents and users of the district.

Source: Williamston Township Zoning ordinance, 2011, § 25.01C

This ordinance illustrates the fact that if current local zoning practices are not sufficient in establishing the type of district that would accommodate FIDs, it is possible that new zones could be created with the help of local government. FIDs could benefit from using a concept such as those in the Green Zone, because like the Green Zone, the new FID land uses have not yet been specifically addressed in

local zoning ordinances. Communities could customize zones that allow for farming and gardening on site, extended hours of operation, parking, lighting, road access, and noise, all keeping sustainability in mind. They could foster an environment of innovation, food production efficiency, and ecological responsibility. A disadvantage to utilizing a specialized zone is the funding and support required to carry out the extensive process. Because these zones can cater specifically to food-related uses, it has potentially a high concentration potential.

Special Use

Special uses are often found next to permitted uses in zoning ordinances. They are more restrictive than the permitted uses. S. Lucas (personal communication, March 28, 2012) shares that:

Special uses are subject to an extra set of standards to ensure that any impacts are minimized. Approval procedures are more complex, allowing additional review and public comment.

The Michigan Association of Planning (MAP) touches on the concept of extra standards to minimize impacts. MAP (2011) defines special uses below:

Special land uses (SLU), known by a variety of terms, are uses of land which are not essentially incompatible with the uses permitted in a zoning district, but possess characteristics or location qualities which require individual review and possible restriction in order to insure compatibility with the natural environment of the site, the character of the surrounding area, public services and facilities, and adjacent uses of land. (p. 40)

Special uses allow for a wider variety of uses by not banning activities that may have questionable impacts, rather, regulates them more closely.

The Michigan Codified Law (MCL) 125.3501 (2006) states that, “[t]he local unit of government may require the submission and approval of a site plan before authorization of a land use or activity regulated by a zoning ordinance” (Act 110 of 2006). In regards to approval, the law states:

A site plan shall be approved if it contains the information required by the zoning ordinance and is in compliance with the conditions imposed under the zoning ordinance, other statutorily authorized and properly adopted local unit of government planning documents, other applicable ordinances, and state and federal statutes. (MCL 125.3501)

In order to be permitted as a special use, if the applicant meets the general requirements for all special uses in the zoning ordinance as well as those attached specifically to the particular special use and is approved by the planning commission and governing body, they shall be granted permission for the desired change.

Referencing the special uses included in the Traverse City Industrial District in Figure 6.5, for example, special uses include communication towers. If a land owner would like to site a communication tower on land currently zoned industrial, the applicant would need to follow the process of obtaining a special land use permit as defined in the Special Land Use Regulations chapter of the Traverse City zoning ordinance. This chapter tells the applicant that for communication towers, the sought-out use will have to meet both general special use and the particular special use zoning requirements, as well as be approved by the city commission. This process includes first meeting with the city planner, then sending the special use application with a specific parcel site plan to the planning commission who then will make a recommendation to the city council, where a public hearing will be held. Upon approval from the city commission, an order will be issued allowing the use to be carried-out as stated in the order.

Figure 6.5: Traverse City Zoning Ordinance Excerpt

1354.02 USES ALLOWED BY SPECIAL LAND USE PERMIT.
 The following uses of land and buildings, together with accessory uses, are allowed in the Industrial district if a special land use permit is issued according to the standards of this Code:

- Communication towers.

Source: City of Traverse, 2009a, § 1354.02

Special use zoning gives the municipality more review than permitted use zoning, as there is an additional approval process, particularly a parcel-specific site plan review. The Traverse City zoning ordinance clearly states that in order to be granted approval as a permitted use, the use must conform to multiple requirements. For example, Figure 6.6 requires that the desired use not burden public taxpayers. If the applicant proposes a development that will require, for example, an excess amount of city water for a processing facility, the governing body could deny the request.

Figure 6.6: Traverse City Zoning Ordinance Excerpt

(d)	The use shall not create excessive additional requirements for infrastructure, facilities, and services provided at public expense.	
2010-D Replacement	146	paprea

Source: City of Traverse City, 2009b, § 1364.02.d

This advantage of extra control is also a disadvantage. For a small community with limited planning and zoning staff, special uses involve an extra review process. S. Lucas shares a practitioner’s insight into the process which “[o]ften requires [...] hearings at both planning commission and elected board levels, with review of associated studies, reports, and permits to determine compliance with local standards” (personal communication, April 10, 2012). These additional requirements may be too cumbersome for a smaller community.

When including FIDs in a zoning ordinance, many activities found within an FID (e.g., community kitchens or processing facilities) could be permitted as special uses in compatible districts. FIDs might be considered a special use in a number of zoning classifications such as commercial, residential, or office district. For example, a community kitchen could be added as a special use in residential. Doing so would safeguard the community from nuisances or too large of a development, but allow for residents to enjoy the accessibility of a commercial kitchen.

The effectiveness of concentrating food-related uses utilizing special uses is likely to be moderate, because similar special uses may be included in multiple districts, therefore not necessarily encouraging clustering.

Overlay Zoning

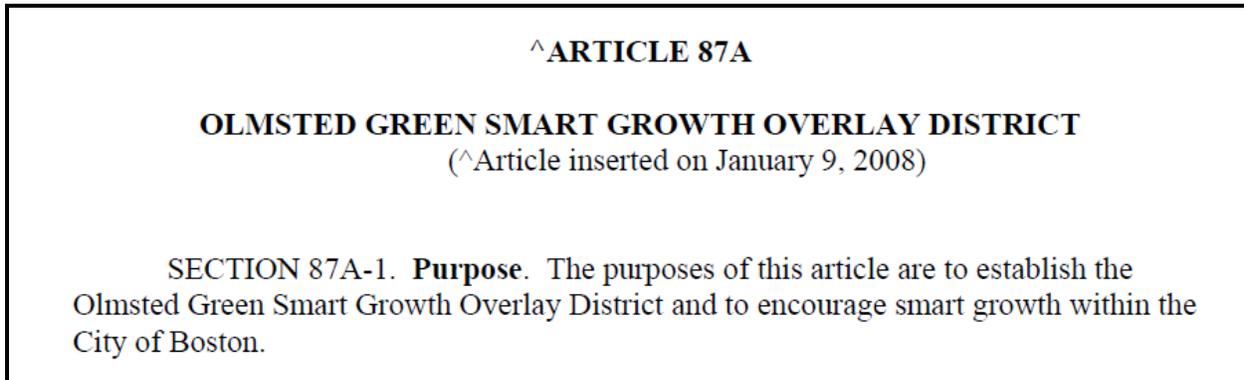
Another regulatory tool is overlay zoning. Miskowiak and Stoll (2005) define overlay zoning:

Overlay zoning is a regulatory tool that creates a special zoning district, placed over an existing base zone(s), which identifies special provisions in addition to those in the underlying base zone. [...] The overlay district can share common boundaries with the base zone or cut across base zone boundaries. Regulations or incentives are attached to the overlay district to protect a specific resource or guide development within a special area. (Tool Description section, para.1)

The authors (2005) go on to discuss the potential uses of an overlay, including natural resource protection, such as special habitats or flood plains, and development guidance, such as historical areas or incentives (Common Uses section, para. 1-2).

Authors Mukherji and Morales make mention of the Olmsted Green Smart Growth Overlay District in Boston, Massachusetts in their article regarding urban agriculture (2010). In the Olmsted East Mixed Use Subdistrict (2008), the Boston zoning overlay allows for “[f]ood production uses, including a farm, garden, food production center and/or incubator and food-oriented retail” (§ 87A-5). Laying this zone over the underlying uses gives the latter the ability to create, for instance, a food incubator.

Figure 6.7: Boston Overlay District Excerpt



Source: Boston , 2008, § 87A-1

An advantage to this regulatory tool is that it does not change the underlying zoning, rather, it typically imposes alternatives. The overlay is intended to provide flexible and adaptable use or site development regulations by requiring standards tailored to specific areas or conditions. For example, an overlay district could restrict access to adjacent roads and require specific design features to minimize the effects of traffic. This would make for a walkable retail district for customers.

S. Lucas of NWMCOG suggests that overlay zoning could be a useful tool for communities seeking to guide development within an area that is regulated by multiple zoning districts (personal communication, April 10, 2012). If a community is looking to incorporate for example, community gardens and accessory buildings in residential and commercial zones, an overlay zone could efficiently be used to grant such allowances. “Additionally, flexibility may be granted for specific uses through the use of overlay language, which could act as an incentive to certain types of development” (S. Lucas, personal communication, April 10, 2012).

In *Directing Development and Growth: Overlay Zones* (n.d.) it is stated that:

In some cases the overlay district may reduce the requirements for setbacks, landscaping, or parking to preserve a specific character (such as in a downtown area). An overlay district in some instances will modify the permitted uses of the district in order to preserve or promote the character of the district. (p. 1)

Overlays could assist in FID development by allowing additional uses, and/or design flexibility, but will not necessarily create a binding development pattern. “However, if flexibility or other incentives are included in an overlay, FID activities might be encouraged within focused areas” (S. Lucas, personal communication, April 10, 2012). Therefore, the concentration potential for this zoning method is likely to be moderate.

Model Overlay Food Innovation Zoning Ordinance

Included in Appendix C is a model overlay zone which allows lighter uses by right and regulates more intense uses by defining them as special uses. Conditions have been applied for more complicated uses, or to ensure that the uses conform to the purpose of the ordinance. Additionally, by regulating more intense or complicated land uses, FIDs could be introduced into a wider variety of zoning districts.

Communities are encouraged to use this model overlay zone as a guide. Planners and community members will know which uses are more or less appropriate for their area. Therefore, this model could also be used to create a permitted use zone, or even a special zone, such as the Green Zone Planned Development District.

Conditional Rezoning

Conditional rezoning is another possibility for defining FIDs. Conditional rezoning was adopted in Michigan under the Michigan Zoning Enabling Act, Act 110 of 2006. Below is the actual law outlining conditional rezoning (Act 110 of 2006):

Sec. 405. (1) An owner of land may voluntarily offer in writing, and the local unit of government may approve, certain use and development of the land as a condition to a rezoning of the land or an amendment to a zoning map.

(2) In approving the conditions under subsection (1), the local unit of government may establish a time period during which the conditions apply to the land. Except for an extension under subsection (4), if the conditions are not satisfied within the time specified under this subsection, the land shall revert to its former zoning classification.

(3) The local government shall not add to or alter the conditions approved under subsection (1) during the time period specified under subsection (2) of this section.

(4) The time period specified under subsection (2) may be extended upon the application of the landowner and approval of the local unit of government.

(5) A local unit of government shall not require a landowner to offer conditions as a requirement for rezoning. The lack of an offer under subsection (1) shall not otherwise affect a landowner's rights under this act, the ordinances of the local unit of government, or any other laws of this state.

History: 2006, Act 110, Eff. July 1, 2006. (MCL 125.3405)

A land owner may propose to a local government unit that their property be rezoned. If approved, the municipality will decide for how long the conditions (as proposed by the applicant) will be honored (Act 110 of 2006).

Concerning FIDs, conditional rezoning could offer flexibility in the existing land use. For example, if an orchard owner believes that they would benefit from selling their processed goods (e.g., jams, jellies, canned produce) on a larger scale on-site, they

could explore the possibility of a rezone. Perhaps the owner would ask they be able to build an additional structure, with the allowance of retail (including signage), to sell their goods. The orchard owner may say that the establishment will only operate from 9 a.m. to 5 p.m., as to not attract traffic at an unreasonable hour. Additionally, they would only sell goods made on-site from regional produce in their commercial kitchen. Because they have offered conditions attached to their requested use, as to not create a nuisance for neighboring properties, the jurisdiction may be willing to consider the conditional rezone.

A clear advantage to this zoning is that it is applied for a certain time period. Additionally, if a conditional rezone is granted and the land owner does not uphold their part of the agreement, then the land will revert to its previous use. If after a rezone it is found that the use does not fit with the surroundings, upon petitioning for an extension of the use, the local government entity could deny the application (Act 110 of 2006). As Eckenstahler and Kaufman (2009) mention, a community can “[j]ust say no! - [sic] can reject offer” (p. 2). This is the advantage of conditional rezoning. If a food hub is recognized as a possible nuisance, it can be denied. However, as the authors also state, allowing conditional zoning “[o]pens [the] door [,]” hinting at the possibility of more requests to follow (p. 2). Additional thoughts on conditional rezoning include those from S. Lucas (personal communication, March 28, 2012):

With a typical rezoning, **all** permitted uses within the requested district must be permitted with the rezoning. [...] Conditional rezoning allows **one suggested use** to be proposed, often with certain conditions or restrictions, without opening the door to all uses permitted uses in the requested zoning district.

One aspect of conditional rezoning to be cautious of is the possibility of the method being attacked as spot zoning (Burke & Snoe, p. 597). The authors also state that:

The zoning amendment must conform to the comprehensive plan of development; the rezoned use must be compatible with the uses being made of surrounding property; and the zoning amendment must benefit the district or community rather than the property owner. (p. 597)

The concentration potential of this zoning method is estimated to be low due to the individual-basis of the zoning requests. Conditional zoning does not inherently encourage clustering.

Additional Concepts to Consider

Master Plan

A master plan is a long-term plan used “[...] to guide the development of the community” (Levy, 2009, p. 124). In Michigan, it is required by law that zoning ordinances be based on a master plan. In the Michigan Zoning Enabling Act (2006),

the connection of the zoning ordinance and master plan is addressed and stated that:

Sec. 203. (1) A zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy, to meet the needs of the state's residents for food, fiber, and other natural resources [...] (MCL 125.3203)

The act goes on to cover the specifics of the regulation concerning all the necessities of civilization.

Although a master plan gives a community a clear picture of their values and future, zoning gives the vision its backbone; its legal framework. By including FIDs in the long-term vision, the whole community can commit to the growth of the FID. Through the master plan document, long-term community goals are established and may be upheld in possible legal challenges, if crafted correctly. The zoning ordinance, referencing the master plan, will give the goals and policies legitimacy.

Incorporating FIDs into the city's comprehensive plan could be achieved by weaving important food-related components into goals and policies. Alternatively, a separate plan dedicated solely to promoting FIDs could be created. The plan could use the goal and policy format as stated in Berke et al. with "[...] policies that guide actions to achieve goals" (p. 71). With FIDs included as a goal for the city, policies will outline the necessary steps to promote the district's success.

A small area plan, also known as a subarea plan could serve as a separate plan, in addition to the master plan. "The small- (or specific-) area plan focuses on areas within the community" (Berke, et al., 2006, p. 64). Berke, et al. (2006) go on to suggest the uses of a small area plan, like central business districts or neighborhoods (p. 64). Such a plan uses a small lens, focusing attention on a particular area. MAP (2011) states, "[g]enerally, for each subarea separate goals and policies are prepared" (p.11). While there is a relatively scarce amount of literature on the effectiveness of these subarea plans, it could be inferred that such plans share similarities with general master plans. One being that the effectiveness heavily depends on community involvement and commitment. S. Wheeler (2004) brings together the factors that determine the implementation of a plan:

A plan that takes existing resources into account, that builds consensus between constituencies, that gets decision-makers and the public excited about future possibilities, and that includes specific budgeting or legally binding changes in city zoning code or laws stands a much better chance of being successful in the long run. (p. 88)

Traverse City has utilized a number of elements, closely related to a subarea plan, which accompany the master plan and dictate the goals of capital improvements, economics, historic resources, zoning, and so on (City of Traverse City, 2009b). Traverse City could create an additional element that addresses creation and regulation of FIDs. Communities that do not utilize supplemental plans could consider creating a plan focusing entirely around food, spelling out their goals and steps needing to be taken to achieve such. Pothukuchi and Kaufman (2000) touch on the ability to include food security in community goals, like those found within strategic plans. The authors go on to state that by doing so, “[...] may also result in specific forms of interaction between local municipal agencies (perhaps even the development of a city department of food), between different levels of government, and between public, private, and nonprofit agencies” (p.121). Essentially, including food in strategic planning is a way to get the conversation started. Additionally, FIDs could be included in a subplan or master plan as a way to support a community’s sustainability goals. FIDs, a newer concept, share many similarities with sustainability and this relation could be reinforced with a strategic plan.

However, when utilizing a master plan as a catalyst to implement and regulate FIDs, it is important to get the community involved. Levy (2009) makes mention of community involvement, stating, “[t]o a great degree the effectiveness of the plan depends upon the degree of commitment by the municipal government and the citizens to the plan” (p. 133). Knoche makes a similar statement, “[...] ‘what keeps a plan from being something that sits on a shelf and gathers dust is that it provides people with a clear picture of what can be done’” (as cited in McClendon, 2003, p. 228). All members of the community must be involved so that the document does not gather dust on a shelf.

Design Guidelines

Urban Design: Center for Design Excellence (n.d.) defines urban design as the following:

Urban design is about making connections between people and places, movement and urban form, nature and the built fabric. Urban design draws together the many strands of place-making, environmental stewardship, social equity and economic viability into the creation of places with distinct beauty and identity. (The art of creating section, para. 3)

Concepts that are often used when discussing urban design include walkability, pedestrian-oriented, pedestrian-scaled development, and mixed-use. While this planning tool may not assist in concentrating food-related uses, it can certainly make the FID more pedestrian-friendly and usable for the community. Horst et al. (2011) mentions the focus that de la Salle and Holland place on landscape design for food hubs. By incorporating special urban design guidelines into the master plan or zoning ordinance, the attractiveness of FIDs to pedestrians may be increased.

The City of Traverse City has incorporated urban design standards as an element in their master plan. Figure 6.8 shows the connectivity standards of the urban design element, focusing on the needs of pedestrians.

Figure 6.8: Traverse City Urban Design Excerpt

CONNECTIVITY	
<ul style="list-style-type: none">• Encourage pedestrian travel by creating interesting street edges.• Sidewalks should be maintained year round and furnished with benches, bike racks, drinking fountains, trees, public transit stops, public restrooms and trash receptacles.• Encourage the use of street level windows, landscaping, arcades, plazas, decorative paving and lighting to enhance the environment for walking.	

Source: City of Traverse City, n.d., p. 6

Urban design could address walkability in FIDs, street design, vegetation standards, even community gathering places. There are endless standards that could be introduced to enhance the sense of place of an FID.

Incorporating Incentives

In a report written by Abdul-Kareem and Thornton (2009), zoning solutions to help create a healthier food environment were discussed. While the authors explored supplying healthy food to the population, which could be an aspect of FIDs, the suggested zoning to support healthy food systems can certainly be translated to assist in FID formation. A form of zoning proposed to promote farmers markets in Baltimore City was incentive zoning (2009):

Under an incentive zoning scheme, a local zoning board comes up with two lists: a list of promises it would like a developer to make, and a list of zoning concessions that the board is willing to make in return.⁹¹ Residential developers would then have the option of picking an item from each list – a zoning concession that incentivizes them to build, and a return promise to the city, perhaps to operate a farmers’ market in its proposed residential development. (p. 10)

A local Michigan example of incentive zoning can be seen in the Traverse City, Michigan ordinance in the C-4 Regional Center Districts. If a developer includes 20% residential in a building, then the structure is granted an additional 8 foot height allowance. By doing so, the developer may build higher and the city attains more residential units in the city (See Figure 6.9).

Figure 6.9: Traverse City Zoning Ordinance Excerpt

C-4b: 60 feet maximum. Sixty-eight (68) feet in height is allowed if at least 20% of the building is designed and used for dwellings.

Source: City of Traverse City, 2009a, § 1346.06.a

Offering incentives in zones or districts for the localizing of businesses is a helpful tool for the development of FIDs, as it can create a reward for agglomerating. If applying incentives to a PUD or certain zone, a municipality could for instance, offer processing plants in industrial zones additional parking or driveways for businesses that utilize a minimum of 30% local goods in the production of their product. The community loosens control on parking and driveways so that more local goods are purchased and the business limits their product-purchasing options for more parking. This trade-off can assist a community in getting wish list items with directly paying for them. However, a community must be prepared to sacrifice something (e.g., allow for higher building heights) in return for community benefit (e.g., additional affordable housing).

Eco-Industrial Parks

Horst et al. (2011) mentions the development of an eco-food processing park in Port Columbia, Washington (p. 223). The U.S. Environmental Protection Agency's *WasteWise* publication (2000) utilizes E. Lowe, J. Warren, and S. Moran's definition of an eco-industrial park:

[...] a community of manufacturing and service businesses seeking enhanced environmental and economic performance through collaboration in managing environmental and resource issues including energy, water, and materials. By working together, the community of businesses seeks a collective benefit that is greater than the sum of the individual benefits each company would [otherwise] realize. (as cited in U.S. Environmental Protection Agency, pp. 5-6)

When discussing Kalundborg Industrial Ecosystem in Denmark, the EPA states that “[...] one facility's waste becomes another facility's feedstock, ensuring that raw materials are recycled or disposed of efficiently and safely” (p. 10). R. Côté and E. Cohen-Rosethal (1998) identify indicators of eco-industrial parks as being “[...] community, cooperation, interaction, efficiency, resources and system” (p. 183).

Blue Mountain Station in Dayton, Washington, which is to be an eco-processing park is mentioned in Horst et al (2011). The park is currently in the early phases of development, but when finished, will focus on natural and organic artisanal products (Blue Mountain Station, n.d., About Blue Mountain Station section). The website states that, “[t]he plan is to combine a cluster of artisan food processors with the fun of food tourism at this site nestled in the scenic Walla Walla Valley” (Blue Mountain Station, n.d., About Blue Mountain Station section, para. 1).

In Gaylord, Michigan, plans are moving along to create an eco-industrial park on a former 933 acre Georgia-Pacific plant (Keller, 2010, May 12; Michigan Department of Environmental Quality, 2011). The Otsego County Brownfield Redevelopment Authority was awarded \$743,750 by the Clean Michigan Initiative, a program under the Department of Environmental Quality, “[...] to conduct a phase I and II assessment of the property, prepare a category ‘S’ Baseline Environmental Assessment (BEA) and due care planning for the new purchaser” (Michigan Department of Environmental Quality, 2011, p. 7). The project received the grant in February of 2010, with funding available through 2013 (J. Hukill, personal communication, March 27, 2012).

A working example of an eco-industrial park is Energy Park, in St. Paul Minnesota. The 218-acre site encompasses housing and 11 businesses that include manufacturing and commercial sites, which help to generate nearly 5,000 jobs (St. Paul Port Authority, n.d.). The site includes a heated water circulation system, which provides the site and surrounding area with “[...] energy savings, increased efficiency, and reduced pollution” (Ever-Green Energy, 2008). Buildings that are located in the area are required to adhere to a strict code to maximize energy savings that is imposed by the St. Paul Port Authority (City of St. Paul, n.d.; Ever-Green Energy, 2008).

Another working example is Menomonee Valley in Milwaukee, Wisconsin, an area of nearly 300 acres of brownfields that have been redeveloped for eco-friendly industrial uses (Menomonee Valley Partners Inc., 2012). Over the past 12 years, Menomonee Valley has redeveloped and grown into an area that supports over 4,700 jobs (Menomonee Valley Partners Inc., 2012). The area contains numerous LEED certified buildings, miles of trails, and native plants (Go Milwaukee, n.d; Menomonee Valley Partners Inc., 2012).

Such developments could assist in concentrating food-related businesses and promoting sustainable practices, as byproducts and wastes are circulated within the development. Additionally, the close proximity of businesses will help make the transfer of knowledge easier, and the park a place for innovation. It is also a possibility to incorporate incentives in these parks, which may be zoned as PUDs. With the right developer, an eco-industrial park could be home to food-related businesses and services, creating a *one-stop-shop* for local and commercial buyers.

Conclusion

After exploring regulatory and non-regulatory tools, some options promise to be more efficient in regulating and supporting FID development. The *right* zoning method for FIDs will depend on what type of zoning the community currently uses, planning and zoning staff capacity, and the commitment and attention a community is willing to devote to the development and regulation of food-related businesses. A community fully committed to fostering FIDs may consider creating a special zone

(e.g., Green Zone Planned Development District) for food-related uses. Devoting a zone to such uses could assist in gathering community support and committing to the further development of an FID.

A jurisdiction looking to allow food uses, but not necessarily ready to spend time on crafting an intricate ordinance could allow these new uses by right. There is no single answer to the zoning a municipality chooses to use for FID planning, rather a better fit for the community's needs. The agglomerating potential for each zoning method varies, however, commitment to the goal of incorporating food-related uses in a community may increase the agglomerating effect.

Once a jurisdiction has made the decision to go ahead with FID planning, design guidelines and sustainability concepts, both of which can be included in the master plan, could be considered. Designing the FID in such a way that it is welcoming and convenient may help in the success of the district. Incentivizing concentration of uses through bonuses may also assist in creating FIDs. Incentives have the ability to be attached to numerous zoning types and uses including overlays, PUDs, and eco-industrial parks.

Summary

There are a variety of zoning options available to communities for regulating food hubs and FIDs. Zoning covered in this chapter included permitted use, PUDs, special zones, special use, overlays, and conditional rezone. Certain zones may be better-suited to deal with the needs of an FID. Design standards can help a community tailor districts to allow favorable uses that will conform to the surrounding area.

In order to promote food hubs and FID formation, a less stringent zoning approach may be desired. When dealing with food uses, extent and intensity may be considered to organize the uses most effectively. It also may be in the best interest of the community to adopt an ordinance that requires minimum attention (i.e., no extra meetings and little chance of possible litigation). To do so, an ordinance that can maintain consistency in every zoning decision should be chosen.

While some communities may not be prepared to commit to extensive zoning ordinances, this chapter suggests additional concepts to consider that can help get the conversation about FIDs started.

Chapter 7 – Future Actions to Advance Food Innovation Districts

After several months of research, discussion, and collaboration with Michigan State University (MSU) faculty, the Northwest Michigan Council of Governments (NWMCOG), the MSU Center for Regional Food Systems, and Regional Food Solutions LLC, the MSU Practicum Team presents the following findings and recommendations for the advancement of FID research in and beyond our state's boundaries.

Many communities are (re)discovering the importance of more localized food systems. Planners in communities have opportunities to partner with other community stakeholders to support local business development and community awareness of the various benefits local food production offers. A district focused on the multiple aspects of production and community engagement, while honoring local culture, can foster numerous meaningful connections between small and mid-sized producers. It can also give the area a positive local identity that can entice local and regional residents to spend time and money in the area.

The success of FIDs is essentially context driven. A major determinant will be the indigenous agricultural and food processing capacity of a community. The advancement of an FID will also depend in part on the desire of the community to create these centers of activity. Appendix B provides possible ideas for activities that will encourage FID development. But before a community can begin strengthening food-related businesses, an FID inventory should be conducted. The matrix included in Chapter 4 of this report is a useful tool in determining the strengths and weaknesses of the study area (potential FID).

The matrix works by identifying what elements are present or non-existent in an area. Producer-oriented, community-oriented, and place-oriented elements assist in classifying FID characteristics in a community. A simple checklist format (i.e., 'Yes'/'No') is utilized, making the matrix user-friendly. Case studies of established food hubs and gathered research of food systems aided in establishing the matrix criteria. The included case studies can also serve as reference points or comparison for developing FIDs.

Further additions and refinements to the matrix will make for a stronger analysis tool. As the local food movement continues to grow, a longer list of FID-related elements will develop. The MSU Practicum Team hopes that others will continue to add to this valuable analysis tool.

Another focal point of this report is the investigated economic strategies. Looking to established business districts and their policies has given insight into possible

organizational strategies and funding sources for FIDs. It is noted that collaboration with governing entities and businesses is essential in coordinating FIDs. Through research of business districts with similar organizational structures to that of an FID, it is clear that the development of FIDs on at a state level or beyond will require numerous resources (e.g., time, expertise, funding).

The MSU Practicum Team suggests that elements of the Michigan Main Street Program could be altered to allow for a food system-based and incentivized system, which would aid in the enhancement of a downtown's physical environment. If FIDs were to locate in the downtown, it is possible that funding could be secured. The success of enterprise zones and Renaissance Zones depends on the area, zoning designation, number and variety of zoning incentives, and strong local support from the private and public sectors. Whereas enterprise zones and SmartZones programs are no longer available, they lay out specific guidelines as to the process of creating different legislation with varying governing bodies. By changing the SmartZone criteria from technology-based standards to food system-oriented, FIDs could be created in a similar process. However, for such a designation to be made feasible under current law in Michigan, either a new law or amendment would be necessary. Depending upon the resources of the municipality, such as time, money, staff, and so on, working with the state legislature may not be feasible.

The major concepts to remember for economic development in regards to FIDs include the following:

1. FIDs would do well in adopting a cohesive branding strategy, incentivizing districts, and founding a coordinating organization
2. Future research for FIDs should look to working business districts and state legislation for guidance for organizational structure

The below actions that may be for economic strategies have been divided into short-term actions and long-term actions.

Table 7.1: Economic Short-Term and Long-Term Actions

Economic Short-Term Actions	Economic Long-Term Actions
<ul style="list-style-type: none"> • Incorporate local authorities for partnership with businesses (BRA, LDFA, DDA) • Connect clusters with outside markets • Implement tax strategies, where applicable (Credits, TIF, Abatements) 	<ul style="list-style-type: none"> • Amendment to legislation for FID consideration into tax incentives • Develop placemaking programs for modeling of FIDs • Attract food-related businesses to invest into districts • Connect businesses for design of the New Economy, capitalizing on existing clusters and regional brand

Source: MSU Practicum Team, 2012

The regulatory tool section concludes that communities will need to assess the practicality of each zoning approach. Smaller communities may strive to choose an option that is relatively low maintenance, such as permitted use. Alternatively, larger communities may choose to use a more hands-on regulatory approach, such as conditional zoning or creation of a special zone. However, the most important concept is that there is no such thing as a *right way* to zone. Planners will need to assist communities in choosing the most appropriate regulatory approach. Crucial concepts that the reader should gather from the section include the following:

1. There is not *one-size-fits-all* when it comes to zoning
2. Not all zoning methods have the same agglomeration potential
3. Zoning methods require different levels of maintenance (i.e., conditional zoning requires more attention than permitted use)
4. If looking to concentrate food-related uses (i.e., agglomerate), utilizing permitted use, planned use development (PUD), or creating a special zone may be the most effective methods
5. A master plan that supports the creation of FIDs is necessary, in fact, it is *required by law* in order to zone
6. Additional concepts, such as development standards, the introduction of incentives, or creation of eco-industrial parks may assist in realizing the FID

Below, actions to be taken for zoning have been divided into short-term actions and long-term actions. The most feasible zoning methods to implement are short-term solutions, while the more complicated are long-term.

Table 7.2: Regulatory and Non-Regulatory Short-Term and Long-Term Actions

Regulatory Short-Term Actions	Regulatory Long-Term Actions
<ul style="list-style-type: none"> • Incorporate FIDs into master plan/subplan • Utilize permitted use 	<ul style="list-style-type: none"> • Utilize planned use development (PUD) or create a special zone • Offer incentives • Create eco-industrial parks

Source: MSU Practicum Team, 2012

The Building 58 case study serves as an example for cities to see how a historic area can be revitalized and adapted into a new use as an FID. The Village at Grand Traverse Commons is an existing mixed-use development with many components of an FID. The case study shows how to take an area with elements of an FID and strengthen it.

The below table gives suggested short-term and long-term actions for the Village at Grand Traverse Commons development:

Table 7.3: Grand Traverse Commons Short-Term and Long-Term Actions

GT Commons Short-Term Actions	GT Commons Long-Term Actions
<ul style="list-style-type: none"> • Continue with the redevelopment actions for Building 58 • Find food-based businesses to establish residence in Building 58 • Place greater importance on local goods. 	<ul style="list-style-type: none"> • Act as a model for areas looking to expand food hubs into FIDs • Consider expanding elements further

Source: MSU Practicum Team, 2012

With the above research, the following suggestions are given for the future advancement of FIDs.

Table 7.4: FID Local and Broader Advancement

How to advance FID locally...	How to advance FIDs on a broader scale...
<ul style="list-style-type: none"> • Findings from Traverse • Utilize FID matrix to assess community strengths/weaknesses • Use planning/business strategies 	<ul style="list-style-type: none"> • Further research of FIDs <ul style="list-style-type: none"> ◦ Perform more case study analysis with the FID matrix

Source: MSU Practicum Team, 2012

As local food is increasingly valued, planners must consider the implications of food systems and food-related practices. The FID may serve as a catalyst for the advancement of local food systems. In identifying these food-related clusters, a matrix can assist in creating a systematic approach to analyzing potential, future, and current FIDs. In implementing and organizing FIDs, economic strategies, zoning, and additional regulatory and non-regulatory approaches could be used. The MSU Practicum Team encourages individuals, non-profit organizations, and other groups to further the research started in this report.

Appendices

Consulted Sources

To assemble this report, the MSU Practicum Team heavily relied upon several sources. Below is a list of the authors whose research has assisted in the in the furthering of FID research. The MSU Practicum Team would like to encourage others using this report to browse the Recommended Readings, also located in the appendices.

One of the main sources consulted for the planning portion of this report is the 2011 article, “Towards a More Expansive Understanding of Food Hubs” published in the *Journal of Agriculture, Food Systems, and Community Development*. The authors are all graduate level students, doctoral candidates, or associate professors at the University of Washington.

- M. Horst, E. Ringstrom, S. Tyman, Ward, M. Werner, and B. Born, 2011
 - M. Horst- PhD student University of Washington, Department of Urban & Design and Planning, Seattle, Washington; Food Policy Intern, Puget Sound Regional Council
 - E. Ringstrom- MPA/MUP graduate student, University of Washington, Evans School of Public Affairs & Urban Design and Planning, Seattle, Washington
 - S. Tyman- PhD student, University of Washington, College of Built Environments, Seattle, Washington
 - M. Ward- MUP graduate student, University of Washington, Department of Urban Design and Planning, Seattle, Washington
 - V. Werner- MUP/MLA graduate student, University of Washington Urban Design & Planning & Landscape Architecture, Seattle, Washington
 - B. Born- Associate Professor at University of Washington, Department of Urban Design and Planning College of Built Environments, Seattle, Washington

Professionals who contributed to the MSU Practicum Team’s understanding of concepts needed to further FID research and are cited in this report include:

- Kathryn Colasanti - Academic Specialist, Michigan State University Center for Regional Food Systems
- Laura Goddeeris - Academic Specialist, Michigan State University Center for Regional Food Systems
- J. Hukill - Brownfield Redevelopment Program Unit, Remediation Division, MDEQ
- S. Lucas - Regional Planner, Northwest Michigan Council of Governments

- T. Phelps - The Village Farmer's Market Manager & Community Outreach Specialist, The Minervini Group
- E. Strauss - Ph.D.- Professor of Urban and Regional Planning, Michigan State University
- J. van Ravensway - Michigan State University instructor and former East Lansing, Michigan Planning Director
- R. Zator - SmartZone Manager, Michigan Economic Development Corporation

Recommended Readings

The following is a list of books, articles, and other resources that the MSU Practicum Team feels are especially useful to those who wish to learn more about the topics discussed in this report. For the complete reference information on these readings, please see the Bibliography section.

Economic Development and Policy

- Michigan Economic Development Corporation (MEDC) website
- *Planning and Local Economic Development: Theory and Practice* - Blakely, E. J. & Bradshaw, T. K.

Food and Planning

- *Agricultural Urbanism: Handbook for Building Sustainable Food Systems in 21st Century Cities* - de la Salle, J. & Holland, M. (Eds.)
- *The Food System: A Stranger to the Planning Field* - Pothukuchi, K. & Kaufman, J.
- *Tasting food, tasting sustainability: Defining the attributes of an alternative food system with competent, ordinary people* - Kloppenberg, Jr., J. K., Lezberg, S., Master, K. D., & Stevenson, G. W.
- *Toward a more expansive understanding of food hubs* - Horst, M., Ringstrom, E., Tyman, S., Ward, M. K., Werner, V., & Born, B.

General Planning Information

- *Contemporary Urban Planning* - Levy, J.M.
- *A Planners Dictionary* - M. Davidson & F. Dolnick (Eds.)

Zoning

- *MAP Planning and Zoning Essentials* - Michigan Association of Planning
- *Urban Land Use Planning* – Berke, P.R., D.R. Godschalk, E.J. Kaiser, with D. Rodriguez.
- “Zoning Practice” – Mukherji, N. & Morales, A

Appendix A

Blank Matrix

Defined Area		Regional Descriptions		
		Is a Food Hub in the defined area, or is there access to a near-by Hub?	Population	Zoning

MSU Practicum Team, 2012

Producer-Oriented Elements															
Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N

MSU Practicum Team, 2012

Community-Oriented Elements						Place-Oriented Elements														
Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component		Policy Supported		Placemaking		Restaurant		Entertainment/Agritourism		Existing Food Cluster		
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	

MSU Practicum Team, 2012

Comparison Matrix

		Regional Descriptions		
Defined Area	Is a Food Hub in the defined area, or is there access to a nearby Hub?	Population	Zoning	Demographics
Detroit, MI	Yes, Eastern Market	713,777	Mixed Residential Housing, Central Business District, Commercial Community Shopping, Light Industrial, and Open Space	82.7% Black persons, 10.6% White persons, and 6.8% Latino persons
Oakland, CA	Yes, Mandela Foods Cooperative & Thumbs Up Distributing	390,724	General Services District and General Industrial District	34.5% White persons, 28.0% Black persons, 16.8% Asian persons, and 25.4% Latino persons
Wooster, OH	Yes, Local Roots Market & Café	26,119	Light Industry, Single Family Residential, Retail Commercial, and Public/Semi Public	91.2% White persons, 3.6% Black persons, 2.2% Latino persons, and 1.9% Asian persons

MSU Practicum Team, 2012

Producer-Oriented Elements															
Wholesale District		Resale/Retail District		Planning & Coordination		Distribution Network		Shared Storage Facilities		Processing Center		Marketing Services		Farm to School	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
X		X		X		X		X		X		X			
X		X		X		X		X			X		X		X
X		X		X			X		X				X		X

MSU Practicum Team, 2012

Community-Oriented Elements						Place-Oriented Elements													
Education Program		Community Supported Agriculture		Community Kitchen		Connection to Low-Income Individuals		Health Component		Policy Supported		Placemaking		Restaurant		Entertainment/ Agritourism		Existing Food Cluster	
Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
X			X	X		X		X		X		X		X		X		X	
X			X		X	X		X		X		X		X		X		X	
X			X	X		X		X			X		X		X		X		X

MSU Practicum Team, 2012

Appendix B

The following section gives examples of matrix components discussed in Chapter 3.

Producer-Oriented

Wholesale District: The Common Market of Philadelphia is an example of a wholesale district that promotes wholesale produce grown in the Delaware Valley. At this market, producers can sell directly to institutional consumers. The Common Market also supplies produce for a number of area hospitals (Spollan, 2011).

Spollan, S. (2011, May 24). An increasingly more common market: north Philly group sets bar high for local food distribution. *Flying Kite*. Retrieved from <http://www.flyingkite.com/features/commonmarket0524.aspx>

Resale/Retail District: The Findlay Market in Cincinnati, Ohio has a well-developed retail district. The market includes a historic market house, market district shops, an open-air bazaar, and a farmers market. With over 30 merchants who sell year-round and many farmers and seasonal merchants, a large spectrum of food products can be found at the Findlay Market (Corporation for Findlay Market).

Corporation for Findlay Market. (n.d.). Directory and Market Map. Retrieved from <http://www.findlaymarket.org/merchants/>

Planning & Coordination: The Wallace Centers of Iowa are an example of providing planning and coordination efforts to an area. With an aim of “[...]building community by engaging citizens in meaningful conversation and active learning” (The Wallace Centers of Iowa, n.d., para. 2), the Wallace Centers provide community building consulting, opportunities for dialogue, along with other services.

The Wallace Centers of Iowa (n.d.) Retrieved from <http://www.wallace.org/index.html>

Distribution Network: Near Bozeman, Montana, Quality Food Distributing is working to get local products on regional stores’ shelves (Lutey, 2011). A center that provides a variety of trucks and routes, which help to more widely distribute local food, may be located in the FID study area. A center that can help distribute local products may be a useful addition to an FID.

Lutey, T. (2011). Local food movement gets trucking. *Billings Gazette*. Retrieved from http://billingsgazette.com/news/local/article_ccf4877b-7f5e-5b92-ba05-7cf4b3ad8a4f.html

Shared Storage Facilities: Vermont Refrigerated Storage, located in Shoreham, Vermont, is an example of a shared storage facility. They offer controlled atmosphere storage of apples, refrigerated storage, dry storage, and frozen storage to the agricultural community (Vermont Refrigerated Storage, n.d.).

Vermont Refrigerated Storage (n.d.). Home. Retrieved from <http://www.vtrstorage.com/index.html>

Processing Center: Oakland, California has identified its own food processing cluster with 71 processing firms (Unger & Wooten, 2006).

Unger, S. & Wooten, H. (2006, June 21). A Food Systems Assessment for Oakland, CA: Toward a Sustainable Food Plan. Retrieved from <http://clerkwebsvr1.oaklandnet.com/attachments/14033.pdf>

Marketing Services: Local Orbit is a website that works to connect consumers to producers providing for safe online transactions (Local Orbit, 2012).

Local Orbit. (n.d.). Retrieved from <http://localorb.it/>

Farm to School: Davis, California maintains an exemplary farm to school program. "Davis Farm to School" works to increase the amount of farm fresh food in schools, reduce the amount of solid waste from school lunches, and provide educational opportunities to students and staff of area schools (Davis Farm to School, 2012).

Davis Farm to School. (n.d.). Home. Retrieved from <http://www.davisfarmtoschool.org>

Community-Oriented

Education Program: Angelic Organics Learning Center in the greater Chicago area offers business planning, on-farm training, mentoring, as well as public workshops in urban areas (Angelic Organics Learning Center, n.d.).

Angelic Organics Learning Center. (n.d.). About Us. Retrieved from <http://www.learnrowconnect.org/about>

Community Supported Agriculture (CSA): The Michigan State University Student Organic Farm offers a 48-week CSA and summer CSA, providing customers with a wide variety of vegetables and fruits. Members receive 6 to 12 items per week, which is enough to feed a typical family of four (Michigan State University Board of Trustees, n.d.).

Michigan State University Board of Trustees. (n.d.). Community Supported Agriculture. Retrieved from <http://www.msuorganicfarm.com/node/123>

Community Kitchen: The Rockingham Community Kitchen in Wentworth, North Carolina offers reservation times to use their equipment, including a convection oven, a food dehydrator, and a commercial potato peeler, among other items (Rockingham Community Kitchen, n.d.).

Rockingham Community Kitchen. (n.d.). Home. Retrieved from <http://www.rockinghamkitchen.org>

Connection to Low-Income Individuals: Bridge cards, also known as Electronic Benefit Transfer (EBT) cards, are part of an electronic system in the U.S. that allows state governments to provide financial and material benefits via a plastic debit card (State of Michigan, n.d.). Food benefits can only be used to purchase food items authorized by the USDA's Supplemental Nutrition Assistance Programs (SNAP) (USDA Food and Nutrition Service, 2012). In Michigan, bridge cards can be used in a Double Up Food Bucks (DUFEB) program, where DUFEB tokens are used exclusively for Michigan-grown fruits and vegetables at participating farmers markets (Fair Food Network, n.d.).

Fair Food Network. (n.d.) How it works. Retrieved from <http://www.doubleupfoodbucks.org/how-it-works>

State of Michigan (n.d.). Frequently asked questions: Electronic Benefits Transfer (EBT). Retrieved from <http://www.mi.gov/dhs/0,4562,7-124-9255-18257--F,00.html>

USDA Food and Nutrition Service. (2012, February 16). Supplemental Nutrition Program. Retrieved from <http://www.fns.usda.gov/snap/retailers/eligible.htm>

Health Component: The Supplemental Nutrition Program for Woman, Infants, and Children (WIC) is an example of an organization that provides nutrition education and counseling at their clinics (USDA Food and Nutrition Service, n.d.).

USDA Food and Nutrition Service. (n.d.). About WIC. Retrieved from <http://www.fns.usda.gov/wic/aboutwic/wicataglance.htm>

Place-Oriented

Policy Supported: Local Roots Market & Cafe received a grant from Rural Development/USDA (RBEG) for \$99,500 to complete a full commercial kitchen facility. Building renovations were also made with the help of a Specialty Crop Block Grant from the Ohio Department of Agriculture/USDA (Local Roots Market and Café, 2012).

Local Roots Market and Café. (n.d.). Welcome to Local Roots! Retrieved from <http://localrootswoster.com/>

Placemaking:

Placemaking can be partly achieved by finding a permanent home for farmers markets. Below are two examples of permanent structures for outdoor farmers markets in Midland and Jackson, Michigan.

Figure B.1 Farmers Market, Midland, Michigan



Source: Agape Community Transformation, n.d.

Agape Community Transformation. (n.d.) Midland area. Retrieved from <http://actuganda.org/whoAreWe/Photos/midland.htm>

Figure B.2 Kuhl's Bell Tower Market, Jackson Michigan



Source: The Enterprise Group of Jackson, Inc., n.d.

The Enterprise Group of Jackson, Inc. (n.d.). 117 W. Louis Glick - Kuhl's Bell Tower Market. Retrieved from <http://www.enterprisegroup.org/available-property-results/845>

Branding or creating a logo can also assist in placemaking. An example of how a brand or logo could be displayed can be found below:

Figure B.3 Lamp Post Banner



Source: OnSight Signage & Visual Solutions Inc., n.d.

OnSight Signage & Visual Solutions Inc., (n.d.) Professional Sign Gallery. Retrieved from <http://www.onsightcustomsigns.com/professional-sign-gallery/>

The Flint Farmers Market is an example of a year-round facility.

Figure B.4 The Flint Farmers Market



Source: Burnett, 2008

Burnett, L. (2008, March 1). Flint Looks to the Future. *Project for Public Spaces*. Retrieved from <http://www.pps.org/articles/flintlookstothefuture/>

Restaurant: One such example is the Lansing, Michigan diner, Fork in the Road. This restaurant utilizes locally-sourced ingredients and advertises the resources that they use (Fork in the Road, n.d.).

Fork in the Road. (n.d.) About us. Retrieved from http://forkintheroaddiner.com/?page_id=35

Entertainment/Agritourism: Festivals surrounding food are another element of this criteria, such as the Warrens Cranberry Festival in Wisconsin or the Empire Asparagus Festival in Michigan (Empire Asparagus Festival, n.d., Warrens Cranberry Festival, n.d.).

Warrens Cranberry Festival. n.d. Retrieved from <http://www.cranfest.com/>

Empire Asparagus Festival. (n.d.). Retrieved from <http://www.empirechamber.com/pages.php?tabid=2&pageid=97&title=Empire+Asparagus+Festival>

Existing Food Cluster: The Intervale Center, located in Burlington, Vermont, is an example of a food cluster. The mission of the center is to promote land stewardship and new farm incubation. They also offer consulting to agricultural businesses, as well as market development. A variety of farms, apiaries, and chicken hatcheries are part of this food cluster (Intervale Center, n.d.).

Intervale Center. (n.d.). Home. Retrieved from <http://www.intervale.org>

Appendix C

A Note from the Authors

This overlay is intended to give insight into zoning for food-related uses. Communities are not expected to adopt procedures and regulations identified in this document verbatim, as local ordinances and development review processes vary considerably across jurisdictions. It is strongly advised that local governments examine their development review process to determine how the model can be adapted to fit individual needs. Additionally, the community should follow normal legal review when borrowing language from this document.

Using this Document

Please be aware of the special notes (denoted in italics), which give additional information or direction for the use of this document.

Much of the model overlay language has been gathered from existing zoning ordinances, many from northern Michigan. In some instances, language was taken verbatim from these bylaws. Much of the language was modified to cater to the context of FIDs. Local governments with ordinances that were consulted for this model include:

California

- Lake Elsinore

Colorado

- Jefferson County

Florida

- Clearwater

Georgia

- Atlanta

Hawaii

- Hawaii County

Illinois

- Champaign

Iowa

- North Liberty

Indiana

- Fort Wayne

Kansas

- Ford County

Louisiana

- Baton Rouge

Maine

- Gorham

Maryland

- Frederick

Michigan

- Acme Township
- Emmet County
- Frankfort
- Leelanau Township
- Peninsula Township
- Traverse City

Minnesota

- Minneapolis

Virginia

- Prince William County

Washington

- Island County
- Renton

Wisconsin

- Milwaukee

We express our appreciation to the many communities, whose ordinances guided this document.

Model Overlay

Article ____ Food Innovation District (FID) Overlay Zone

§__ Food Innovation District (FID) Overlay Zone purposes and general overlay zone purposes.

- A. FID Overlay Zone purposes. The purpose of the Food Innovation District (FID) Overlay Zone is to aggregate food-related uses by intensity, enabling such uses to be integrated throughout urban and rural areas. Aggregating food-related uses will assist in creating a collaborative environment supportive of innovation and creativity. Additionally, the regional economy will benefit from localization of goods and services and independence from outside food sources. For this reason, this ordinance strives to promote local entrepreneurship and products.
- B. This FID Overlay Zone takes into account the unique nature of food districts and their requirements. Foreseen necessities of the Food Innovation District Overlay include but are not limited to:
 - a. Increased demand for utilities.
 - b. Greater road access to properties for large equipment.
 - c. Accessory buildings to house all necessities related to food production.
- C. General overlay zone purposes. Overlay zones are intended to identify areas of the city that have unique qualities requiring special treatment or locations where special approaches to development may be warranted. Overlay zone designations are intended to protect these areas from incompatible development or to establish development standards which will insure that new developments will not adversely affect surrounding areas. Overlay zones may add new standards over and above those of any base or underlying zoning. They may also alter the standards of any base zoning district.

§__ Cross references. *Note: Add relevant legislation to cross reference with this ordinance.*

§__ Area affected. *Note: The area upon which this overlay will be utilized shall be identified by the community in this section, through a description and/or reference to the community's adopted zoning map.*

§__ Dimensional Requirements. *Note: Lot, yard, and height requirements may be as those specified in the underlying zone or modified as necessary.*

Although this model ordinance defaults to the underlying zoning, local practitioners may want to closely examine existing lot sizes, setbacks, and other development patterns in the district area to determine if this is appropriate for FID-related activities or the intended character of the overlay district.

§__ Definitions. *Note: The following definitions may be included in the overlay district or within the existing “Definitions” section of the community’s zoning ordinance.*

- **Agricultural activity.** Land used exclusively as a bonafide agricultural operation by the owner or tenant. The use of land for agricultural purposes including farming, silviculture, viticulture, fish culture, animal and poultry husbandry, and the necessary accessory uses for packing, treating, or storing the produce, provided that the operation of the accessory use is clearly incidental to the agricultural activity. The business of garbage feeding of hogs, fur farms, or the raising of animals for use in medical or other tests or experiments is excluded.
- **Agricultural processing, minor** Activities used for crop production which are not regulated as major agricultural products processing and which involve a variety of operations on crops after harvest to prepare them for market, or further processing and packaging at a distance from the agricultural area. Included activities are cleaning, milling, pulping, drying, roasting, hulling, storing, packaging, selling, and other similar activities. Also included are the facilities or buildings related to such activities.
- **Animal, domestic farm** Cattle, calves, horses, mules, swine, sheep, goats, poultry or other similar birds and animals.
- **Community garden** A private or public facility for the cultivation of fruits, flowers, vegetables, or ornamental plants by one person or family, or several persons or families.
- **Community health center** A community center facility where social, recreational, welfare, health, or child care assistance is provided by a public, quasi-public, tax exempt, religious institution, or municipal agency.
- **Community kitchen** refers to an approved facility licensed as a food manufacturer that may be used by licensed businesses for commercial purpose. A community kitchen may also be an unlicensed kitchen that is used by community members for cooking non-commercial or exempt foods or for cooking classes and/or other related activities.
- **Distribution center** A use where goods are received and/or stored for delivery to the ultimate customer at remote locations.
- **Farm, domestic** A parcel of land used or intended to be used for agricultural purposes on properties other than commercial farms. Domestic farming

includes keeping farm animals as pets and raising animals for educational experience. Dogs, cats and other typical household pets are not regulated as a domestic farm.

- **Farm products** means fruits, vegetables, mushrooms, grains, herbs, legumes, nuts, shell eggs, honey or other bee products, flowers, nursery stock, livestock food products (including meat, milk, yogurt, cheese, and other dairy products) and seafood.
- **Farm stand** A building or structure used for the retail sales of local/regional fresh fruits, vegetables, flowers, herbs, or plants.
- **Farmer's market** an outdoor market open to the public, operated by a governmental agency, a nonprofit corporation, or one or more producers, offering for sale at retail of home-grown vegetables, produce, or other farm products, occurring in a pre-designated area, where the vendors are generally individuals who have raised the vegetables or have taken the same on consignment for retail sale.
- **Local/regional food items** Food raised, produced, or distributed within the state or less than 400 miles from its source (110th Congress, 2008, Public Law 110-234 section).
- **Research and development facility** Research, development, and testing laboratories that do not involve the mass manufacture, fabrication, processing, or sale of products.
- **Restaurant** A structure in which the principal use is the preparation and sale of food and beverages.
- **Retail** The selling of goods, wares, or merchandise directly to the ultimate consumer or persons without a resale license.
- **Retail sales establishment, food** Any establishment selling food or beverages for consumption off-premises either immediately or with further preparation. Such establishments may include, but not be limited to, supermarket, grocery store, bakery, candy store, butcher, delicatessen, convenience store, and similar establishments.
- **Service establishment** Any establishment whose primary activity is the provision of assistance, as opposed to products, to individuals, business, industry, government, and other enterprises.
- **Social service agency** A facility operated by an organization which provides services such as training, counseling, health, or the distribution of food or clothing. This term includes but is not limited to a facility offering life skills training and housing services.
- **Storage, bulk** The holding or stockpiling on land of material or products where such storage constitutes 40 percent of the developed site area and storage area is at least one acre, and where at least three of the following

criteria are met by the storage activity: (1) in a bulk form or in bulk containers; (2) under protective cover to the essential exclusion of others of the same space due to special fixtures or exposed to the elements; (3) in sufficient numbers, quantities, or spatial allocation of the site to determine and rank such uses as the principal use of the site; (4) the major function is the collection and/or distribution of the material and/or products rather than processing; and (5) the presence of fixed bulk containers or visible stockpiles for a substantial period of a year.

- **Value added farm product** any product processed by a producer from a farm product, such as baked goods, jams and jellies, canned vegetables, dried fruit, syrups, salsas, salad dressings, flours, coffee, smoked or canned meats or fish, sausages, or prepared foods.
- **Warehouse.** Facilities characterized by extensive warehousing, frequent heavy trucking activity, open storage of material, or nuisances such as dust, noise, and odors, but not involved in manufacturing or production.

§___ Permitted uses. The following uses are permitted by-right in the FID Overlay District, subject to the following conditions:

Note: The following list provides a sampling of the sort of land uses that can be encouraged toward the end goal of creating an FID. The uses listed illustrate the types of land uses that may be considered conducive to FID development. Including multiple by-right uses provides many opportunities for property owners to redevelop through an administrative permit process. Communities should use their own ordinance as a starting point and can add or extract uses as appropriate to the goals of the district.

All uses permitted by underlying zoning.

A. Apiculture.

- a. The City of ___ (include jurisdiction) recognizes that Apiculture is a severe health hazard for some residents and the intent of this section is to regulate the keeping of bees to provide guidelines for safe and responsible apiculture operation.
 - i. Maximum of one (1) beehive per acre of owned property.
 - ii. Beehives are not permitted in any required setback area and must be at least 50' from adjacent residential buildings.
 - iii. Beehives must be protected and secured from being knocked over by inclement weather, children, pets, livestock, and other wildlife.

- iv. Beehives require an Apiculture Permit, which includes a Site Plan submitted for review and approval by the Frankfort Planning Commission.
 - v. Apiculture Permit Site Plan requires a site map showing proposed hive placement and protective measures.
 - vi. All beekeeping equipment not currently used in the housing of an active bee colony and all unused or waste honey or wax products must be stored securely indoors.
 - vii. The City Superintendent may revoke an Apiculture Permit at upon due notice to the permit holder for violation of any portion of this Section.
 - viii. Apiculture locations must be available for inspection by the City Superintendent or designated official at all reasonable times.
- B. Bulk storage.
- a. All activities related to this use shall be carried out in completely enclosed buildings. Storage may be permitted out-of-doors PROVIDED that within 100 feet of the Residential District, all storage shall be in completely enclosed buildings. All outdoor storage shall be effectively screened by a solid, uniformly finished wall or fence with solid entrance and exit gates.
 - b. Noise may equal but shall not exceed average street traffic noise.
- C. Community gardens.
- a. Temporary fencing or netting may be erected in and/or around the community garden without a permit.
 - b. Community gardens require written permission from the property owner to be kept on file by all individuals sharing the use of the Community Garden.
 - c. Market and Community Supported Agriculture Gardens are prohibited from conducting commercial transactions on the garden site.
- D. Community health centers.
- E. Community kitchens.
- a. Loading and unloading must occur to minimize adverse impacts on adjacent residential properties. A site plan will be evaluated.
 - b. All food production must be for consumption off of the premises.
 - c. No customer seating on the premises is permitted.
 - d. The number of employees must not exceed applicable code limits.
 - e. Hours of operation must not exceed applicable code limits.
 - f. The use of the facility shall not result in any exterior alternations to the existing building unless otherwise required to meet applicable codes.
 - g. Operations and production must occur in an enclosed building.

- h. No outdoor storage is allowed.
 - i. Signage is limited to one square foot.
 - j. No excessive customer traffic.
 - k. Shipment and delivery of products or supplies shall be limited to between 9:00 a.m. and 6:00 p.m. in vehicles permitted to serve residential neighborhood.
- F. Domestic farms and farm animals.
- a. Domestic Farms that include livestock must be on sites of 2.0 acres or larger, as follows:
 - i. Animal density of two Farm Animal Unit for the first 2.0 acres, plus one additional Farm Animal Unit for each additional acre of contiguous land (ownership or lease).
 - ii. Corrals, stables, and enclosure fencing shall meet the setbacks of the District, and building sizes comply with Section, Accessory Buildings.
 - iii. Other farm animals subject to approval by the Planning Commission, who shall determine that the densities related to item (a) herein, and/or meet one acre per "Farm Animal Unit" as defined in this ordinance, and that no nuisances are maintained to the detriment of neighboring owners. Swine, roosters, or other animals may be prohibited by the Planning Commission, if determined to cause a nuisance.
 - iv. The use is not a Commercial Farm as defined in the Ordinance.

Note: Depending on the goal of the FID, domestic farming may need to be restricted. Commercial farms shall be governed by the Michigan Right to Farm Act (Act 93 of 1981), so long as they meet the defined regulations.

- G. Eating and drinking places subject to the following conditions:
 - a. 10% regional items as defined herein shall be offered on the menu.
- H. Farm stand.
 - a. Accessory sales of other unprocessed foodstuffs, home processed food products such as jams, jellies, pickles, sauces, or baked goods, and home-made handicrafts are permitted provided the floor area devoted to the sales of these accessory items shall not exceed 50 percent of the total sales area.
 - b. No commercially packaged handicrafts or commercially processed or packaged foodstuffs shall be sold at a roadside stand
- I. Farmers market.
 - a. All farmers markets and their vendors must receive all required operating and health permits and these permits or copies shall be in the possession of the farmers' market operator on the site of the farmers market during hours of operation.

- b. At least 75% of the displayed inventory of the products sold in each farmers' market consists of farm products or value-added farm products.
 - c. At least 75% of the booths open during the market's hours of operation are producers of the farm products or value-added farm products, or family members or employees or agents of producers.
 - d. If a booth sells farm products or value-added farm products that are not produced by the vendor, said booth must explicitly disclose the producer's name and location in writing with lettering that is visible to the consumer.
 - e. Hours of operation shall be during a window between 7 a.m. and 9 p.m. but in no event may a market operate more than three days per week and for more than six hours per day.
- J. Food retail sales establishments.
- K. Minor agricultural processing.
- a. All activities related to this use shall be carried out in completely enclosed buildings. Storage may be permitted out-of-doors PROVIDED that within 100 feet of the Residential District, all storage shall be in completely enclosed buildings. All outdoor storage shall be effectively screened by a solid, uniformly finished wall or fence with solid entrance and exit gates.
 - b. Noise may equal but shall not exceed average street traffic noise
- L. Research and development facilities.
- a. Such uses shall not violate any odor, dust, smoke, gas, noise, radiation, vibration, or similar pollution standard as regulated by §____ (reference existing relevant section).
- M. Roadside stands.
- a. Roadside stands selling regionally grown fresh and/or processed farm produce, raw forest products, cut flowers, potted plants, agricultural and forest products, but excluding items of a kind that are not grown regionally, and also excluding non-agricultural items and products the sale of which requires a permit from the Michigan Liquor Control Commission. Roadside stands are subject to the following terms and conditions:
 - i. The produce sold shall be limited to that grown in ____ (include geographic area).
 - ii. At least 50% of the produce sold must be produced on land that is owned or leased by the operator of the stand.
 - iii. The stand is not over 150 square feet in area. The 150 square foot area may be within a larger existing structure, so long as

the larger structure meets all the setback requirements of the Agricultural District.

- iv. Awnings up to 4 feet projection from the stand structure may be used on three sides of the structure. In the event that the 150 square feet is part of a larger structure the awning is allowed only on the portion making up the 150 square feet.
- v. There shall be a ratio of 1 parking space per 25 square feet of structure to the maximum 150 square feet. There shall be a minimum of five (5) parking spaces available and clearly marked with adequate turn around, so that all vehicles are furnished parking off the public right-of-way.
- vi. No land use permit is required for a roadside stand if the structure is less than 25 square feet in area.
- vii. If the roadside stand is less than twenty five (25) square feet in area or is larger than twenty five (25) square feet but is only left in place seasonally, the roadside stand may be located adjacent to the front lot line rather than meeting the front setback required by Section
- viii. It is the intent of this section to provide only for the limited seasonal sale of agricultural and related products, but not to encourage the size of investment in equipment that would require a commercial zone.

- N. Service establishments.
- O. Social service agencies.

§__ Special exception uses.

The following uses are allowed only through the granting of a special use permit pursuant to the procedures outlined in §__ (reference existing special use permit section or approval procedures).

- A. Commercial agriculture.
- B. Distribution centers.
- C. Multiple driveways.
- D. Processing facilities.
- E. Slaughterhouses.
- F. Warehousing.

§__ Hours of Operation.

Hours of operation proposed for the FID Overlay District shall comply with §__ (reference existing hours of operation section).

§__ Landscaping.

Development proposed for the FID Overlay District shall comply with §____
(reference existing landscaping section).

§____ Parking.

Development proposed for the FID Overlay District shall comply with §____
(reference existing parking section).

§____ Signage and Lighting.

Development proposed for the FID Overlay District shall comply with (reference
existing signage/lighting section).

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