

Fresh Place Market: A Permanent Farmer's Market Solution Supporting the Fargo-Moorhead Metropolitan Area

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Fresh Place Market: A Permanent Farmer's Market Solution

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by

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Matthew Chambers, Primary Advisor

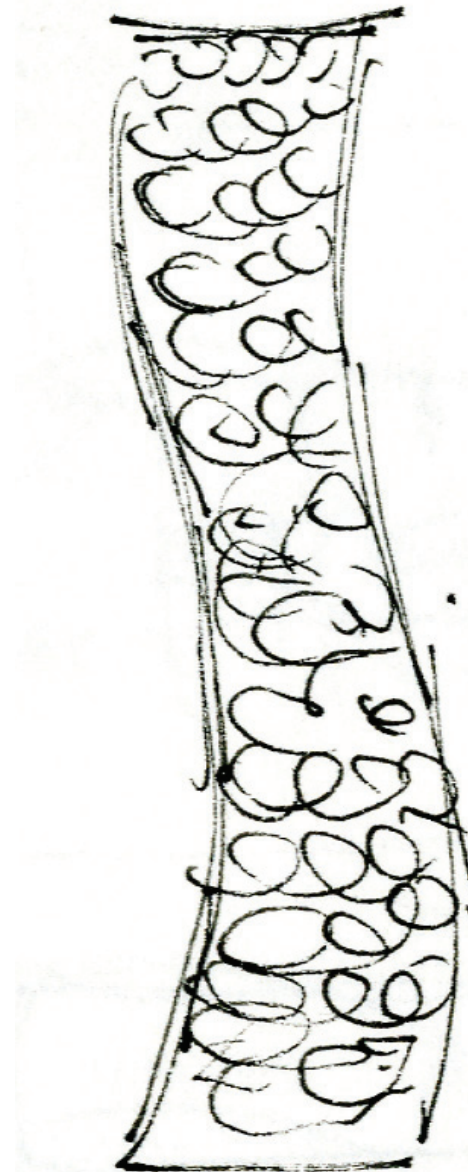


Jason Kost, Thesis Committee Chair

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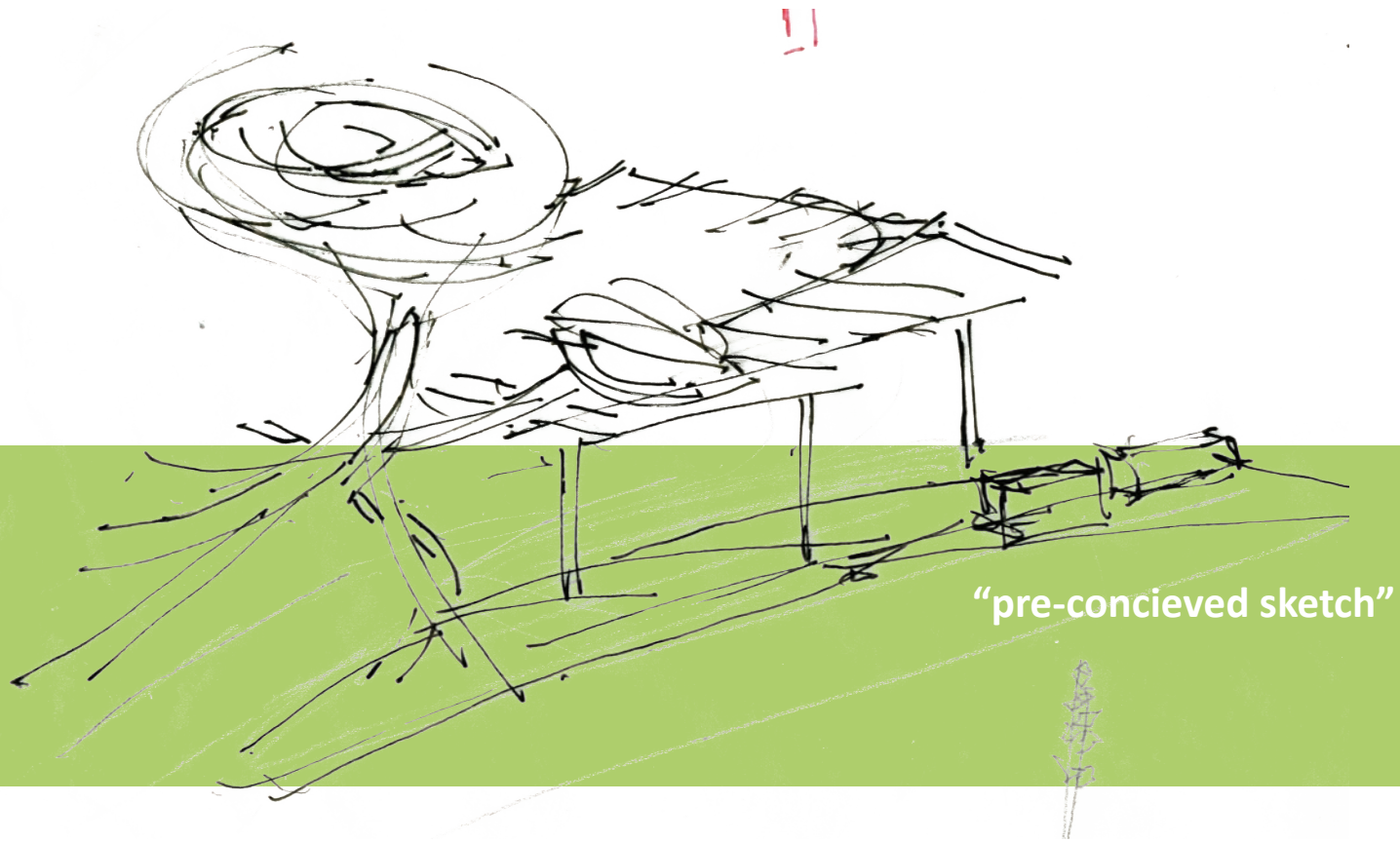
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abstract | intent

Current farmers and individual food producers are struggling for spatial identity and social legitimacy in a larger food network that currently exists in America. Much of the current research focuses on consumer and vendor ideals in terms of what contributes to an ideal farmer's markets social identity, however, little research focuses on the need to evaluate farmer's markets in terms of their spatial identity and how it contributes to creating the ideal FM. This research connects with vendors through a survey to understand their preferred spatial qualities, piggy backs on current trends that residents would like to see in the community, and comparatively analyzes the 10 existing Fargo-Moorhead urban area FM's and produce stands utilizing GIS software. The research is then applied to a design solution that reflects the preferred spatial qualities and overall community vision.



“pre-concieved sketch”

problem statement | intent

How can a single, designed space encourage consolidation of the current Fargo-Moorhead metropolitan farmer’s market system, attract and retain vendor participation, increase patronage, and overall community awareness?

introduction | project typology

Typology | Permanent public space to act as Farmer's Market

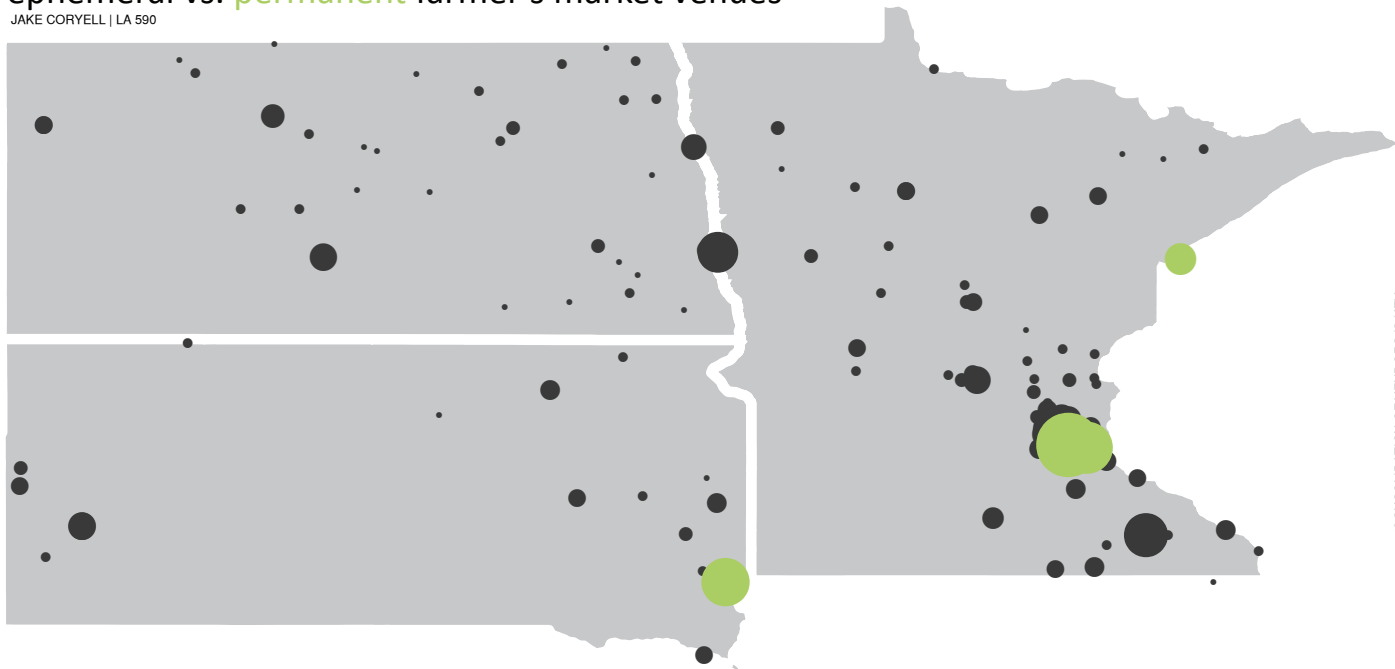
Claim | Providing a single, designed space that reflects vendor and community preferred spatial qualities will encourage the consolidation of the current Fargo-Moorhead metropolitan farmer's market system increasing overall market patronage, and vendor participation.

Theoretical premise/unifying idea | Current farmers and individual food producers are struggling for spatial identity and social legitimacy in a larger food network that currently exists in America. More specifically, the Fargo-Moorhead metropolitan areas has multiple entities diluting the potential and spatial identity of its current market system leaving residents uninformed of the current operations.

Project Justification | It is safe to say that Farmer's Markets are expanding across the United States at a very rapid pace. In the last decade alone, the number of recorded FM's in the United States has more than doubled from 3,137 in 2002 to 7,864 in 2012 and continues to grow. (Agricultural Marketing Service at USDA [[http://www.ams.usda.gov/AMSV1.0/farmers markets](http://www.ams.usda.gov/AMSV1.0/farmers%20markets)], 2012). Investing in the growth of the market system through infrastructure greatly improves consolidation of vendors creating the competitive market customers are looking for (Refer to map on page 7). In addition, truly understanding vendor preferences, community wants, and a strategic location will provide a great opportunity to support the local economy and beef up the local food system.

ephemeral vs. permanent farmer's market venues

JAKE CORYELL | LA 590



SIX LARGEST CITIES

- PERMANENT VENUE
- EPHEMERAL SET-UP

| CITY | POPULATION | PERMANENT VENUES | EPHEMERAL SET-UPS | TOTAL MARKET ENTITIES |
|-------------|------------|------------------|-------------------|-----------------------|
| DULUTH | 86,265 | 1 | 0 | 1 |
| FARGO | 105,549 | 0 | 1 | 1 |
| ROCHESTER | 106,769 | 0 | 1 | 1 |
| SIOUX FALLS | 153,888 | 1 | 0 | 1 |
| ST. PAUL | 285,068 | 1 | 0 | 1 |
| MINNEAPOLIS | 382,578 | 1 | 0 | 1 |





narrative | proposal

The duration of my studies at North Dakota State University, I have developed two major passions: design (specifically in the field of Landscape Architecture) and healthy food and its importance. This thesis proposal is finding a way to bridge these two ideas into a single concept that could provide some validity and support through a design solution for a real problem happening the Fargo-Moorhead community.

This project is intended to engage and open a dialogue between the residents, key personnel working in fields related to our current food system, policy makers, local food producers, and other interested stakeholders to evaluate the current farmer's market system. Essentially, bringing these key people together and introducing the concept of a more permanent market venue that will benefit the Fargo-Moorhead local food system and truly cater to the market experience for vendors and customers.



user | client description

Residents | Community

The residents are the primary client. According to Fargo's GO2030 Comprehensive plan, current residents are wanting convenient, additional access to healthy food and many other attributes that can directly relate to what a permanent farmer's market space has to offer. Other studies indicate that there is an interest from the community in the support of farmer's markets.

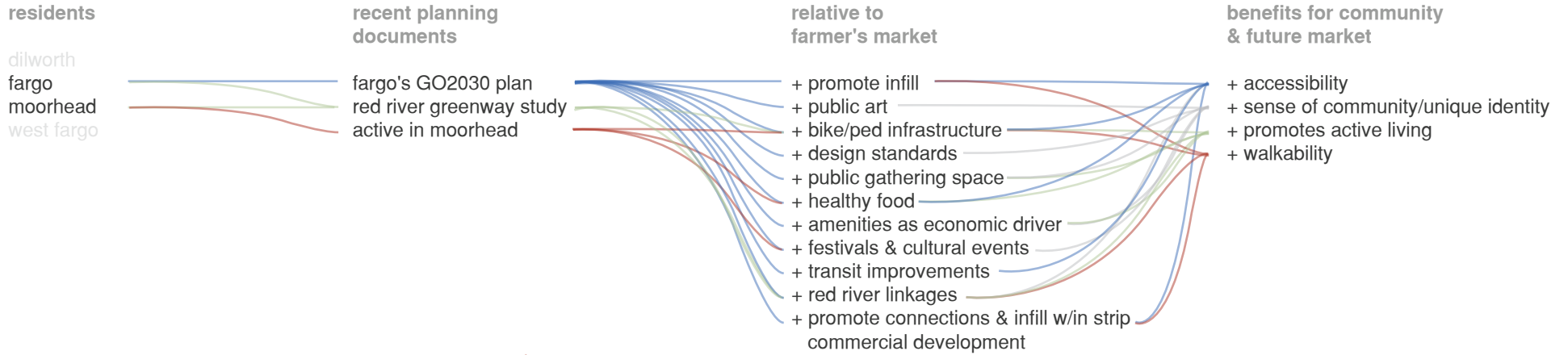
Local food producers | Local Economy

Attracting and retaining local food producers through this design solution will cater to the overall public health and well being of the area residents. In addition, encouraging the consolidation of the current system through a permanent venue will create a more meaningful and effective market space for residents to patronize. It will also create a more competitive market for vendors attracting more customers which would increase the vendor's overall financial success.

City Staff | Policy Makers

City staff and officials, mainly the people that need to be informed to make future decisions for the residents of the growing city population. Potentially, this study may be useful by serving as a catalyst for something that can contribute to the communities overall priorities and help to steer the cities vision.





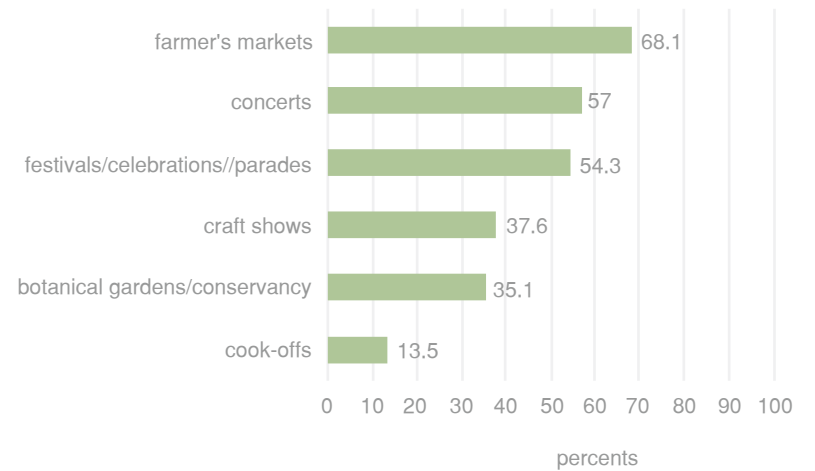
"I'd like to be able to eat more foods grown, produced, and processed locally and support our local economy as well as eat healthy."

- anonymous fargo resident

GO2030
COMP PLAN

ACTIVE IN MOORHEAD

-attractions that do or would encourage residents to get out and be active



farmers market



“Over the years, Fargo-Moorhead has not been able to get a successful market together, which disappoints me considering the population.”

- Fargo-Moorhead farmer's market vendor

currently located at

- stonewest village fm
- fm farmer's market
- new festival
- whistle stop
- va farmer's market
- farmer's market & beyond
- a plus farm/herzogs stand
- sydneys
- lady bug/herzog stand
- herzog's stand

current vendors serving fargo - moorhead

- a plus farm produce
- bayer vegetable farm
- boyum farms
- breadsmith
- dawson creek orchard
- erbes farm
- gardens gourmet
- gramps produce
- it's about thyme
- kragnes family farm
- prairie faith
- prairie horizons farm
- red goose gardens
- the three bears honey co.

product variety



fruits, vegetables, and herbs
11 vendors



eggs
1 vendor



meat and poultry
3 vendors



honey and jams
3 vendors



bread and grains
2 vendors



major project elements

Shelter

Based on the vendor's survey response, if they were customers, they prefer to attend a farmer's market that operates with a permanent venue. This translates into a major program element that helps to give the market a sense of permanence.

Parking

Being mindful of maintaining existing customer parking, and consideration of the vendor preferred parking are important factors driving the design solution.

Loading Areas

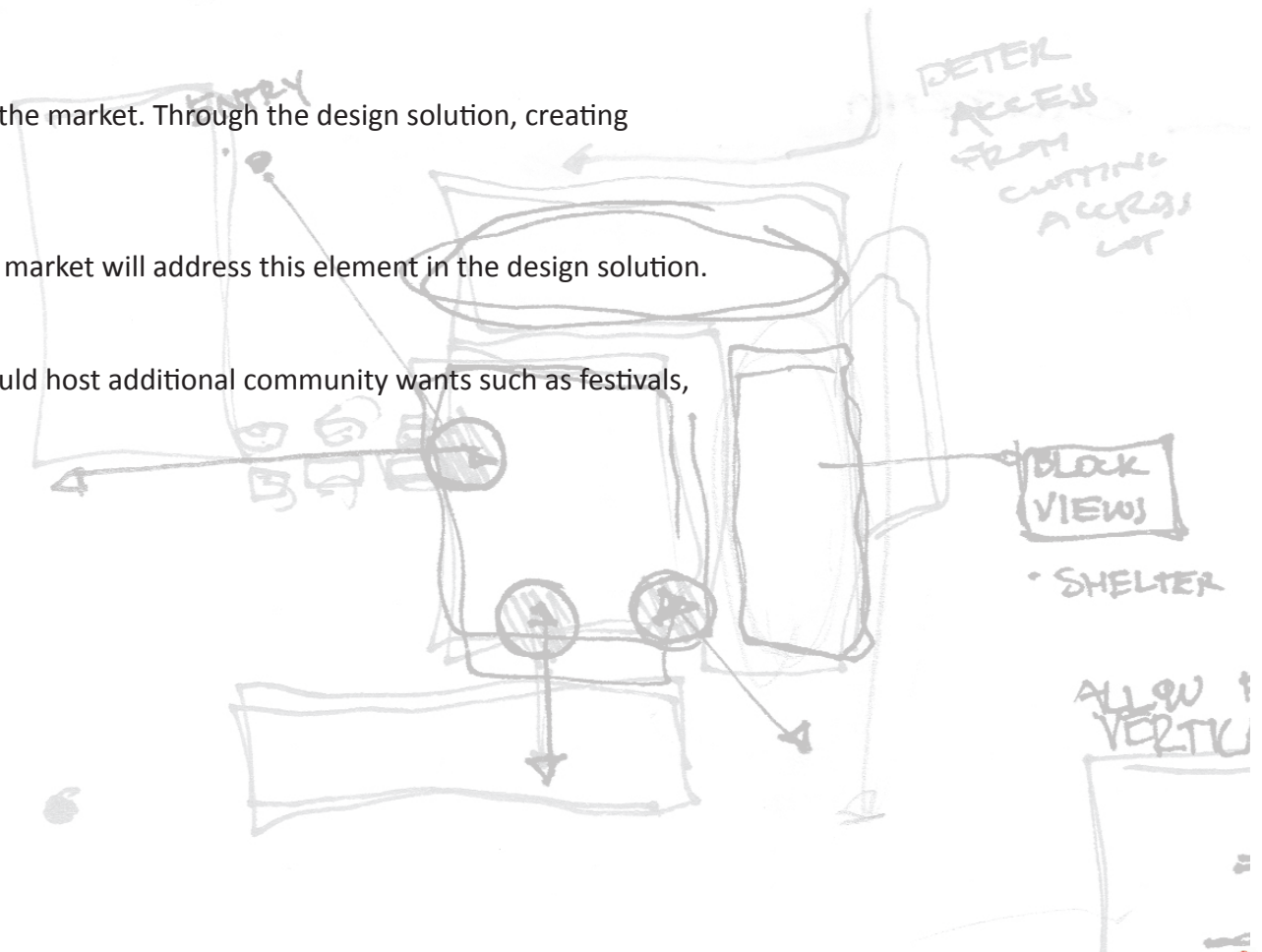
It is important to understand how vendors access the market. Through the design solution, creating convenient access is a priority.

Public Space

Per the communities request for public space, the market will address this element in the design solution.

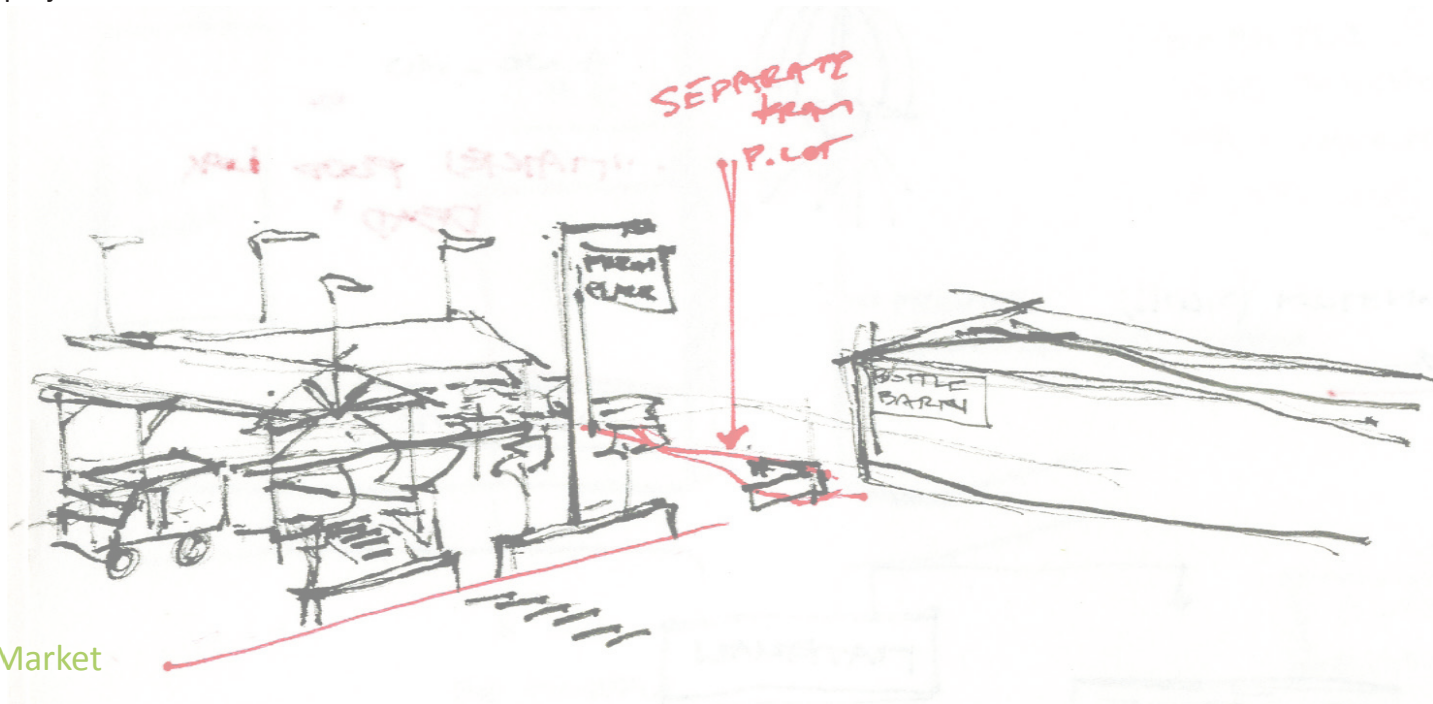
Performance Space

In addition to public space, adding a space that could host additional community wants such as festivals, concerts, etc.



project emphasis

This project aims at the idea of providing a permanent space to act as a farmer's market to encourage the consolidation of the current farmer's market efforts happening in the Fargo-Moorhead metropolitan area. By vendors having a space and coming together, will create more competition and product variety attracting more residents to the market. Aforementioned, this study is examining the potential of what a single space could do to enhance the Fargo-Moorhead local food system while catering to the experience and interaction between customers and vendors. Essentially, this serves as a catalyst for this to be further studied and explored as a future project.



literature review | farmer's market research

In 2008, the ND Department of Agriculture and the ND FM and Growers Association conducted a survey to the state of ND to see how many FM existed and were in full operation. According to their research, of the 48 farmers markets operating across the state at the time, only 30 participated in the survey. Of the participants in the survey, only two are involved in the Fargo-Moorhead Urban Area farmer's markets. There are no further studies indicating how many are in current operation in ND.

Much of the research is geared towards the experience at farmer's markets from the eyes of the consumer. Some of the results of the ND Department of Agriculture this study indicated, on average, 60% of consumers attending the markets spent at least ten dollars in the market that day. The survey also suggests that 78% of the visitors at the market specifically came to town/downtown because of the FM. 90% of the visitor's suggestions were they would like to see more growers/vendors at the market.

Research performed in Maine using a survey to convey data collection from FM consumers, evaluated the farmer-consumer relationships at their current farmer's markets and suggested that "social interactions were better indicators of spending than the quality of the food" in terms of attracting consumers (Hunt, 2007). Essentially, the social component was more important than the consumer buying the product for vendors to connect with consumers and sell their products. Hunt (2007) however did not focus on the physical make-up of the farmer's market space and how that affects or caters the farmer consumer relationships and the social interactions. Research performed in Alabama connected with consumers using a questionnaire to understand their needs and wants at two different markets in two different settings, rural and urban. The majority of their data collected suggested that people came to the markets due to factors such as price, nutrition, and to interact with people and farmers. Combined with Hunt's research, there are arguably a number of consumers that come to FM markets because of the social interaction that happens there. Is this happening because of how the market is set up and/or where it is located?



Alonso and O'neil (2010) found that consumers felt that they also wanted longer market seasons, more product variety, and more vendors as the top three responses of each of the two FM settings. The research begins to get at specific elements of a FM concerning location and type of environmental setting but is not the primary focus of the research (Alonso, O'Neil 2010). There should be a focus on the location and space and how it can help cater to the interaction between vendors and customers.

A similar prior study performed in Alabama, Onianwa et al. (2006) focused on the consumer in relation to choice and their reasoning for purchasing certain products. Results from 222 consumers indicated that consumers gravitated to produce because it was locally grown, fresh, the way the product looked, and the amount of selection in choosing which vendor to purchase from. It also began to explore the space of the FM with responses from consumers answering that the atmosphere was a factor in why they bought from a specific vendor. The results of this study only mention the vendors created atmosphere and how that impacted consumer's decisions in buying products. It did not talk about the market itself and how or if the space attracted consumers to the FM initially. In addition, these studies were only coming from the consumer's perspective. Based on these studies and previously discussed research, a future study should focus on vendors and their perspective on needs and wants of an ideal FM. By knowing their perspective, there might be a way to increase farmer's market attendance while giving ND consumer's what they want, more FM vendors.

On the other end of the research, FM vendor perspectives were also considered. Griffin et al (2003) performed a study that semi-structurally surveyed 18 vendors in upstate New York that was trying to understand what type of lifestyle the vendors lead, what some of the challenges they face at their farmer's markets, and what they believe an ideal FM should consist of. Some of the specific challenges smaller vendors faced were location issues. Other vendors had issues with their downtown location not appealing to people living outside of the city limits. This study had vendors that expressed the importance of ensuring markets to have multi-modal access to the FM. Providing adequate parking, walkable access, nearness to apartments/residential areas, and proximity to public transit opportunities were additional examples discussed by vendors in this study are relevant and start to get at the importance of accessibility of FM.

Additional studies in Kansas, and another in New York surveyed vendors and revealed that, like Hunt's suggested research, the social implications that FM's sustain was one of if not the biggest reason the vendors chose to participate in the FM's (Hughes and Mattson, 1995; Lyson et al., 1995).

As discussed in the previous research, elements (other than how the space can cater to social interaction) should be considered in the re-designing of a FM space such as multiple attractions, and physical elements that allow congregation in a space. If physical elements are not present in the landscape such as 'seating or shade', or there 'is nothing to do when you get there', or also lacks connections to other 'places or destinations' people will not visit (Kent, & Nikitin, 2011). Connection to other places and destinations is important to consider so it seamlessly integrates within current contextual fabric.

“A good public space builds a place for the community around an artwork by growing and attracting activities that make it a multi-use destination” (Kent, & Nikitin, 2011, pg. 17).

This concept is relative in a sense but instead building a social place around food needs other activities to make it a destination where people will come to. The research in upstate New York noted a number of vendors explained personal ways they thought farmer’s markets could attract more consumers such as ‘product variety, live music, and cooking demonstrations’. They also suggested markets should be in a ‘convenient, centralized location with covered shelters, adequate parking, and are accessible to public transportation’ (Griffin, & Frongillo, 2003). This begins to focus on the space but does not focus on the arrangement of these types of physical elements and space.

The value that this research will bring is focusing on the specific physical elements and the overall arrangement that makes up a farmer’s market. It will identify a consensus of what the FM vendors determine would enhance their market attendance, ideally providing a cohesive vision between the FM vendors.

farmer’s market accessibility

Another key issue not discussed in most FM research is accessibility and how easy it is for consumers and vendors to access FM’s. However, there is research regarding applicable methodology used to identify how accessible a place really is. Most of this research revolves around healthy food access and the spatial understanding of food insecurity and developing knowledge of where food deprived areas exist. In Lansing, Michigan the straight line method (direct spatial distance) was applied using GIS to geocode/map locations of survey participants in relation to the nearest food retailer (Thomas, 2010). The straight line method is essentially a direct “hypothetical” line that represents the distance from consumer to retailer simplifying the examination in relationship to distance. Another study used American Community Survey Data to also apply the Straight Line Method to pinpoint lower income/minority areas in relation to food insecurity (Leete, Bania, & Sparks-Ibanga, 2011). An issue with the Straight Line Method is that it does not convey the actual walking, biking, and driving real distances. Thomas (2010) later suggests that “distance” is a factor, yet not the only factor, in terms of food insecurity and that it is essentially a layer in the definition of food insecurity. No found research looks at ‘real distance’ evaluations and how accessible destinations really are by multi-modal efforts such as walking, biking, and driving taking into account barriers such as man-made barriers (interstates, walls, etc.), and natural landscape features such as rivers. However, the way the researchers endured the process and how the information was collected is relevant to this study of FM accessibility.

In addition to real distance accessibility, there were other factors that are considered in terms of accessibility. A book, *The New Farmer’s Market*, serves as a guide to help vendors establish a FM or can be used as a tool by vendors to enhance their existing



FM's. As experienced past FM vendors, FM organizers Corum, Rosenzweig, and Gibson (2001) provide criteria that are needed to make FM's successful in many aspects in this book. In relation to accessibility of FM's, factors such as location and the importance of centralizing, high visibility, access for multiple modes of transportation, planning traffic flow, shelter, finding ways to advertise. These are all defined as vital ingredients to make farmer's markets successful in from the authors' perspective.

A personal discussion with the existing assistant director of the Minneapolis Farmers' Market, Pat Nelson (2012, Oct. 7) reinforced these factors and also mentioned the amount of positive value that the market has brought to the Minneapolis Metro FM vendors and consumers since the 1940's. The FM is currently the largest market in the upper Midwest out of 12 states. There were some key points that were taken away from the discussion relating to the FM accessibility and overall success. These points related to Corum et al (2001) such as the high visibility the market receives from Interstate 94, adequate parking, permanence of the shelters, and ease of access for the vendors. These are key traits that influence both market vendors and customers to attend the market according to Nelson. The current Fargo-Moorhead farmers' market system does not offer this equivalence at one specific market location.

In addition to accessibility to a FM, other studies that indicate how far people are willing to travel when talking about accessibility in relationship to walking, biking, and driving were explored. Mid America regional council determined average distances people would be willing to walk based on surveys performed in a few different metropolitan areas. The study broke down the willingness to walk to different types of establishments and the two most relatable to FM's were social/recreational activity, and shopping. For the purpose of this study, the combination of the two relatable distances people were willing to walk was .54 miles (Mid-America Regional Council, 1998).

Research performed in the Minneapolis-St. Paul metropolitan area used the idea of trip purpose to determine distances that people are willing to travel by bicycle using a behavioral use survey and projecting it into a distance decay curve. The results indicated that, on average, a majority of the bicyclists surveyed were willing to travel approximately 6.2 miles when it came to trips to work, shopping, or trail access. This distance was considered throughout the duration of this study.

The purpose of this study was to understand the location in terms of accessibility, and spatial qualities that make up a FM from the perspective of a vendor. A series of questions..... Much of the research focuses on the farmer-consumer relationships and how it affects attendance but does not indicate if the specific space they are selling products has an effect on farmer's market performances. How can the physical space or facilities perform better to attract consumers and create an experience? This research hypothesizes that by providing well located, permanent physical space and a marketing strategy to an existing farmers' market in the Fargo Moorhead Metropolitan area will increase that farmers' market attendance.



research methodology

Improving attendance at a current market in the Fargo-Moorhead Census defined urban area needed a strategic plan to understand what the existing needs of the FM vendors were and which FM location would make the most sense to concentrate efforts on making a more established FM solution in the future. This study employed mixed methodology to collect qualitative and quantitative information. First, the research needed to qualitatively understand what the FM vendor's preferences on ideas about spatial qualities that affect their FM social identity as a whole. Evaluation through a survey was to open a dialogue with FM vendors and get a consensus from them on their ideal FM location, type of environment vendors believe attracts patronage, other market activity, customer recognition, vendor accessibility, booth arrangement, and marketing strategies they believed enhances their public identity. Second, quantifying information through Geographic Information System (GIS) software that identified the FM that had the most access to the most amount of people, and was accessible by multiple modes of transportation (i.e. by walking, biking, automobile). These two focus categories are described in greater detail below.

The second factor in relation to the site selection will be based on the farmer's response to the survey that has been developed for them. The intention of this methodology is to find ways to increase consumer attendance at that market.

Data Collection Method

The first focus was to use the data collection method to conduct a survey to the FM vendors that serve the Fargo-Moorhead Urban area. The researcher being a Landscape Architecture student, which uses visuals as a tool to connect with people, utilized sketches in the survey to help make a more qualitative and illustrative experience for the farmer's market vendors and had not been performed in any other found research surveys. (See appendix 1 for the complete written survey). The main priority with this survey was to open a dialogue with FM vendors and generate a consensus on their ideal FM location, type of environment, other market/social activity, booth arrangement, and marketing strategies. The first round of surveys was sent by email to the twenty six of the known FM vendors serving the Fargo-Moorhead Urban area. After receiving only two responses back, the survey was consolidated to a Survey Monkey that made the process significantly easier for the vendors. Once the survey was consolidated, and the little return from local vendors, the decision was to contact the regional states. Three USDA FM state representatives from Minnesota (Margaret Hart), North Dakota (Dana Pritschet), and South Dakota (Ty Eschenbaum) were contacted to forward this survey off to their FM listserv. The intention was to receive more feedback from more vendors that have similar growing and FM seasons and provide a larger consensus. In total, fifty-nine vendors responded to the survey from the three states. Thirty five vendors were from North Dakota, seven were from Minnesota, and the remaining seventeen were from South Dakota. This was more responses than the initial survey had anticipated.



Archival Record Method

The second category was archival recording through the use of GIS software to determine the current accessibility in relation to 'real distance' and most amount of people who live closest to each of the thirteen existing FM in the Fargo-Moorhead Urban Area. Before the process began, there needed to be an established boundary for the scope of work. In Figure 1, the black line represents the Census defined Urban Area Boundary for 2010. This is the most current urban area boundary for the Fargo-Moorhead metropolitan area.

It did not use the straight line method used in past studies that did not clearly depict barriers in the landscape, or real routes needed to be taken to get to a FM, affecting multiple modes of travel. More specifically, Evaluation of the .54 mile and 6.2 mile distances in relation to how far people, on average, were willing to walk and bike was important. This gruesome process was necessary in addition the survey responses to quantitatively comprehend how each market fit into the current spatial context of the Fargo-Moorhead Urban Area population. In other words, to find out how many people each of the markets was catering to. First, there were numerous spatial data sets (.shp files) that needed to be collected from multiple entities within the Fargo-Moorhead community. Through contacting Kim Lipetzky, a Dietician working for Fargo-Cass Public Health, the study was able to identify where the current FM locations existed in the Fargo-Moorhead Urban area. These locations were Geocoded into the GIS software. Fargo-Moorhead Metropolitan Council of Governments (Metro COG) shared shp. Files such as metropolitan wide roadway centerlines, shared-use path facilities, and the Census defined Urban Area boundary. The last data sets needed to conduct the study was to collect the Block Group Census level data for Cass and Clay County. This initial information that was gathered is displayed in Figure 1 with FM locations; Census defined Urban area boundary and Cass and Clay County Block Group Level data.

At the Block Group level, the study was able to track down the total estimated populations within each of the Block Group Polygons through the use of the American Community Survey (ACS) Data retrieval tool. The next step of this process was to input the population from the ACS data into the associated attribute data in the GIS software. Upon entering the data, applying a random point tool command to the map randomly placed one point for every person randomly in each of the relating polygons as shown in Figure 2.

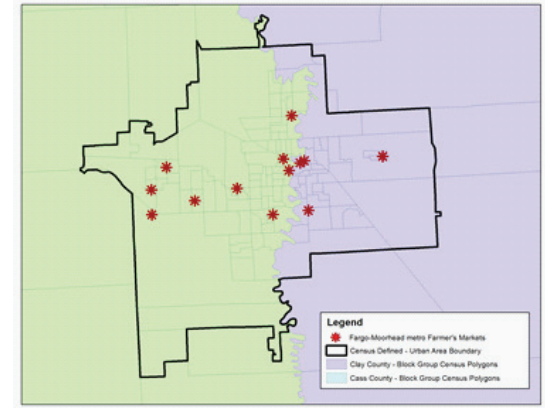


Figure 1: FM Locations, Urban Area Boundary, Block Group Level data



Figure 2: Random Point tool applied

Switching gears, the next step of spatially mapping data involved using the roadway centerline .shp file. The evaluation of how each of the market is accessible by automobile was the first part of this map. Automobile access is primary consideration in relation to accessibility in looking at how people can attend farmer's markets.

Using the Cost Allocation tool in GIS software, it produced a total of two raster image outputs within the Census defined Urban area; Figure 3 (a Cost allocation), which segregated areas portraying the FM that is closest to each of the different colored areas. Basically, any properties that exist within a color shows which market is closest to them.

The next step was to apply the same process to cater to the pedestrian and bicyclist accessibility. Applying the Cost Allocation tool, and the distances from the previously mentioned studies, the output was two rasters displaying real distance map, and an allocation map. The results of this are in the next section.

The last step was to identify which markets were accessible to the most people and had the most amount people living within the earlier defined walking distance of .54 miles. The whole extent of the Census defined urban area boundary was approximately 7 miles so it did not seem appropriate to count the amount of people living within a bicycling distance of 6.2 miles because there was too much overlaps between each market. In the walking distance map in Figure 5, the .54 miles was displayed in yellow to clearly convey the real distance measurement. Within that yellow, all of the random points were selected that are within each of the yellow .54 mile distance. The results are displayed in a table with a corresponding map in the next section which informed the approximate amount of people living within that .54 mile distance to the market. The same process was applied to the cost allocation maps in Figures 4 and 6 through selecting the random points within each color (ten different colors). The evaluation of the two allocation maps and how many people were living closest to that FM was important because accessibility was different between automobile and both walking and bicycling. In the results chapter you will notice the slight difference in FM serving the allocated populations (each color).

The conduction of this research involved the two necessary focus categories to have the best idea of which market should be considered for the future of this research based on the survey results and spatial understanding.

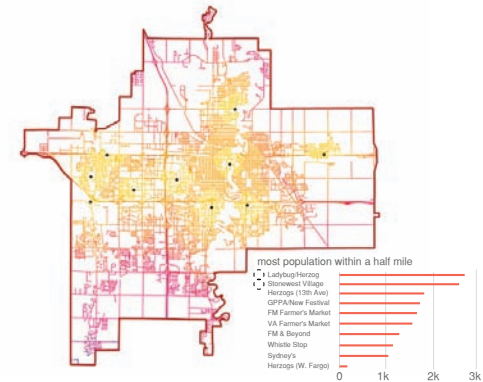


Figure 3: Real Distance Evaluation in One Mile Increments (Automobile)

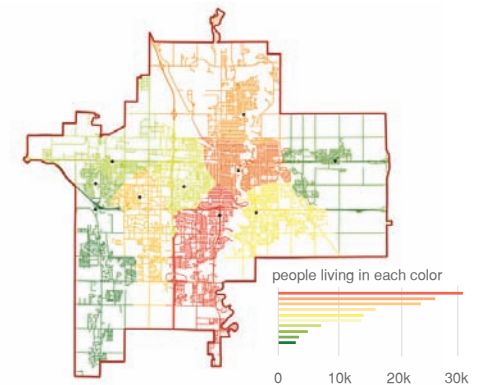
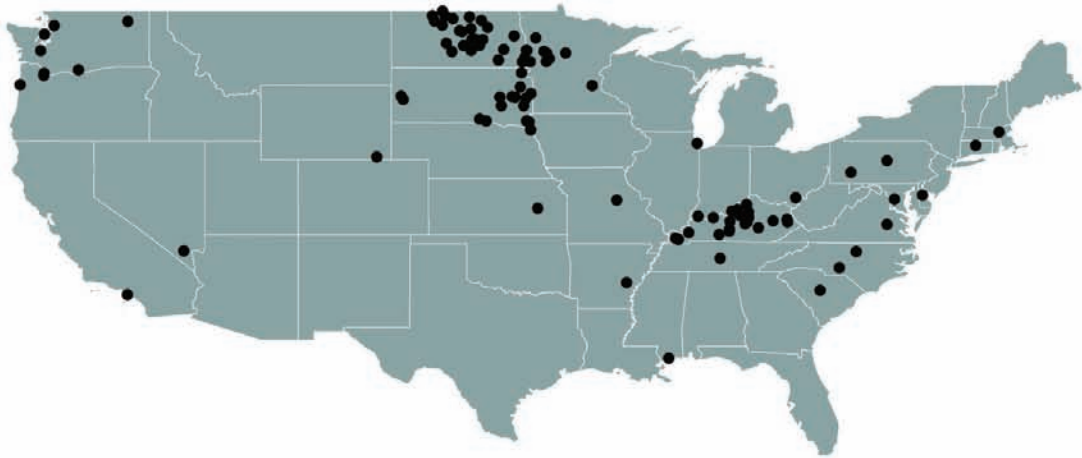


Figure 4: Cost Allocation of people living closest to each FM

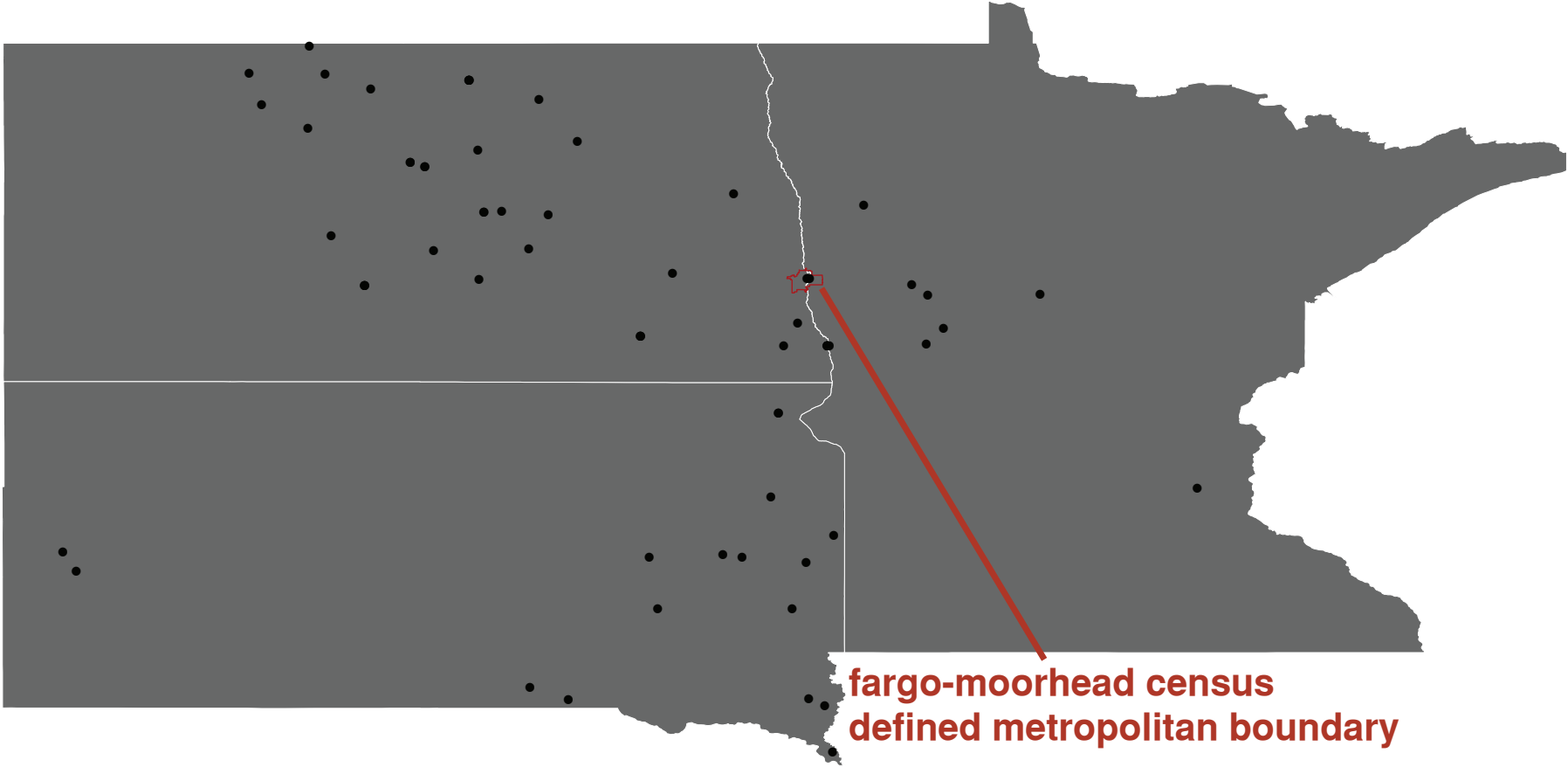
Results

This portion discusses the major results of the responses to the survey that were used to drive the design solution. The other questions can be found in Appendix A.



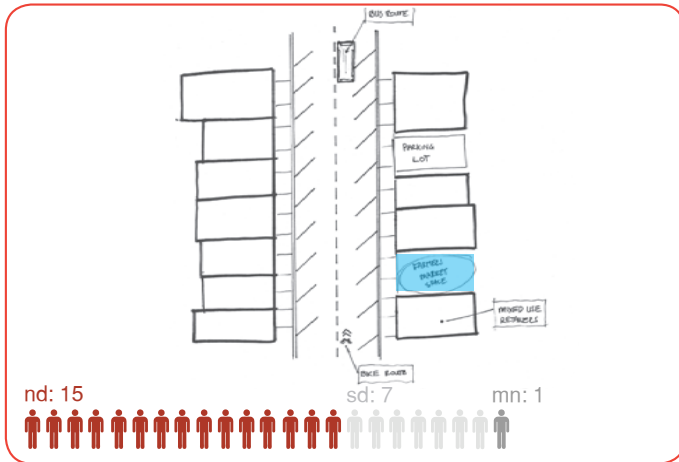
conducted survey

Utilization of the survey monkey made it easier for farmer’s market vendors to take the survey. The graphic below illustrates the location, and amount of feedback received by nationally and regionally. The results from the tri-state area are what drove helped to drive the design solution.

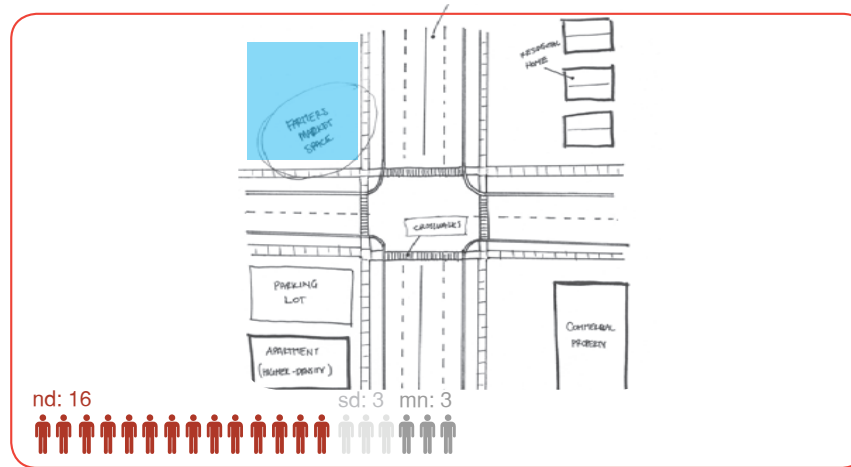


conducted survey | main questions

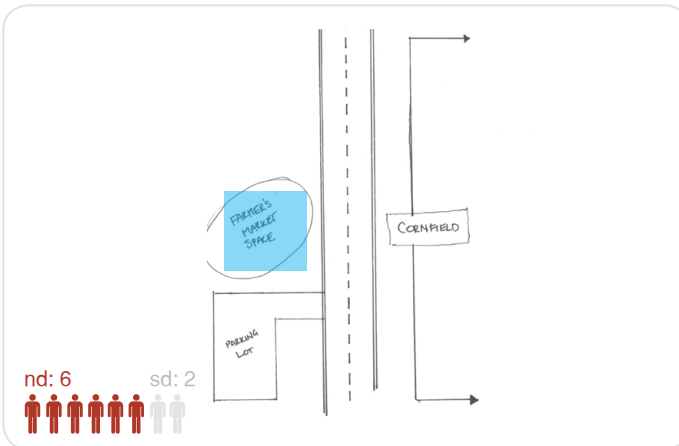
This question asked vendors what type of setting or location do they prefer?



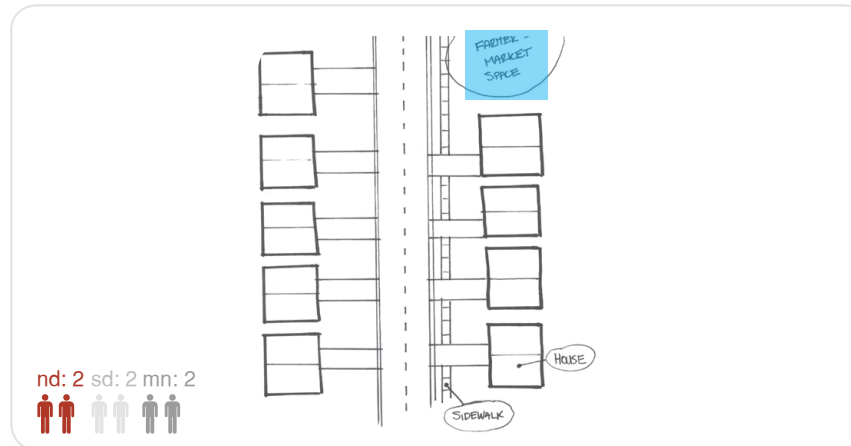
Downtown Setting/Location (23 vendors)
1st Preference



Suburban Setting/Location (22 vendors)
2nd Preference



Rural Setting/Location (8 vendors)
3rd Preference



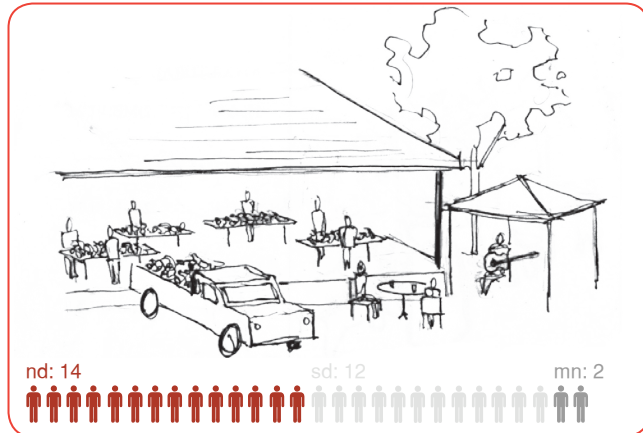
Neighborhood Setting/Location (6 vendors)
4th Preference

Results:

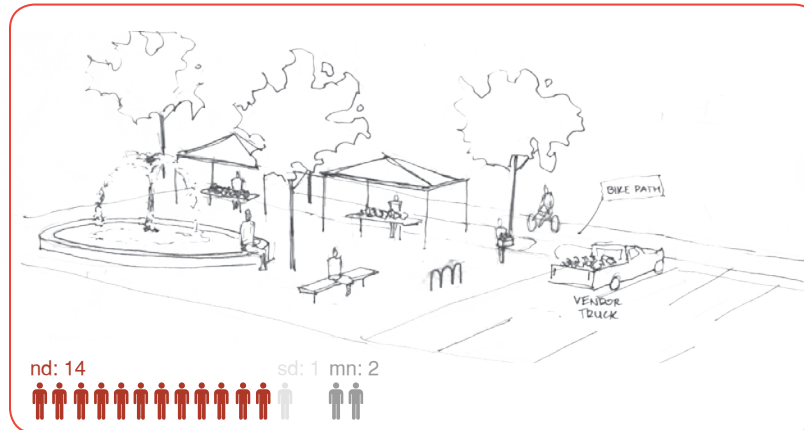
Vendors that responded believe that farmers markets should be either in a downtown, or in a suburban location.

conducted survey | main questions

A limitation to the study was not being able to connect with the customer body. So the next question asked vendors, if they were a customer what type of environment would they prefer?



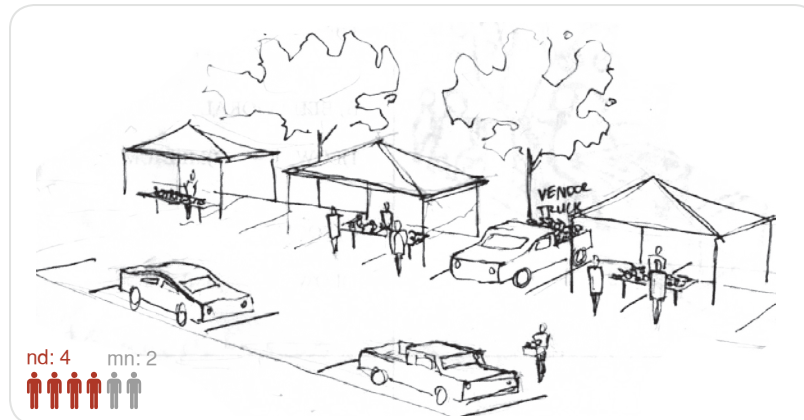
Permanent Outdoor Market (28 vendors)
1st Preference



Outdoor Public Space (17 vendors)
2nd Preference



Permanent Indoor Market (7 vendors)
3rd Preference



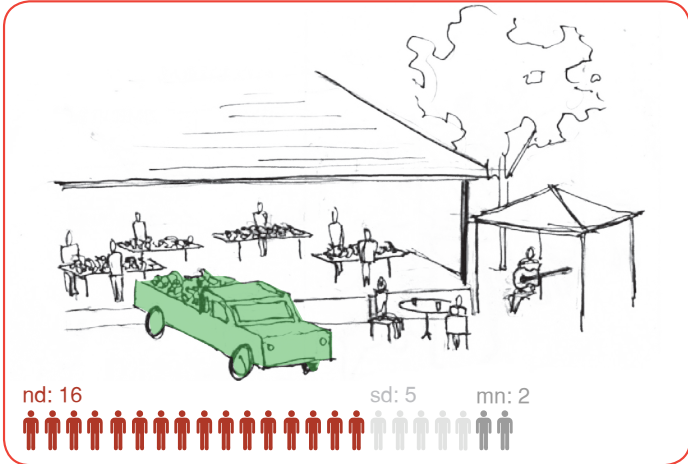
Temporary Outdoor Market (6 vendors)
4th Preference

Results:

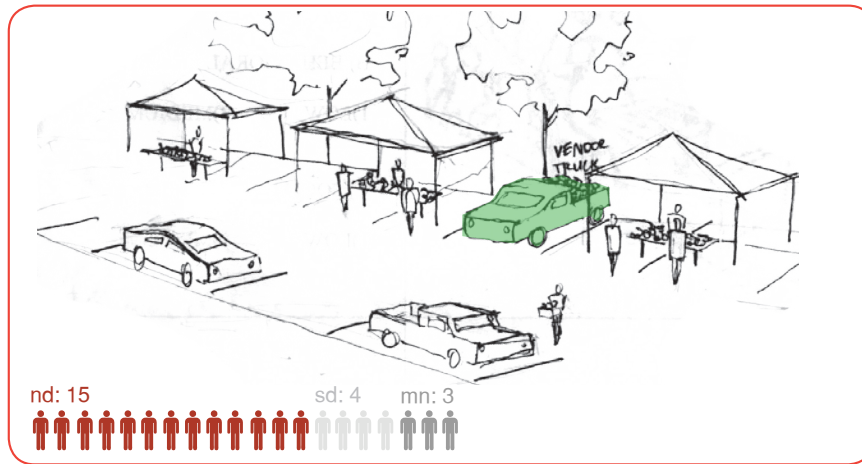
If vendors were customers, the top two preferences were either a Permanent Outdoor Market, and Outdoor Public Space. Interesting fact is that most Fargo-Moorhead markets operate with a Temporary Outdoor Market set-up.

conducted survey | main questions

This question asked vendors what type of parking do they prefer when accessing a market?



Parking in Front of Booth/Stand (23 vendors)
1st Preference



Parking Next to Booth/Stand (22 vendors)
2nd Preference



Parking in adjacent parking lot (7 vendors)
3rd Preference



Parking on Adjacent Street (3 vendors)
4th Preference

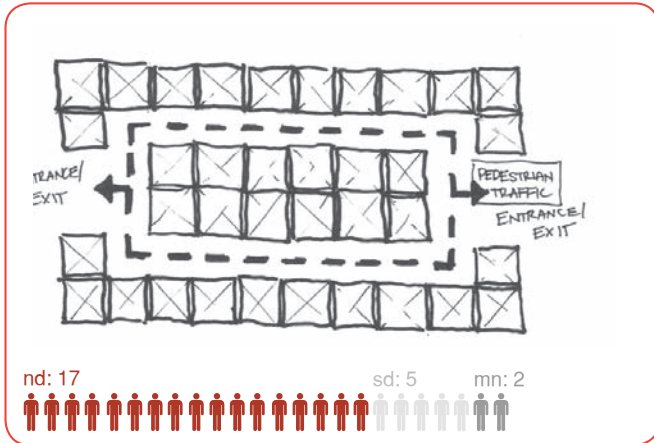
Results:

Vendors prefer parking as close to their booths as they can. Makes sense.

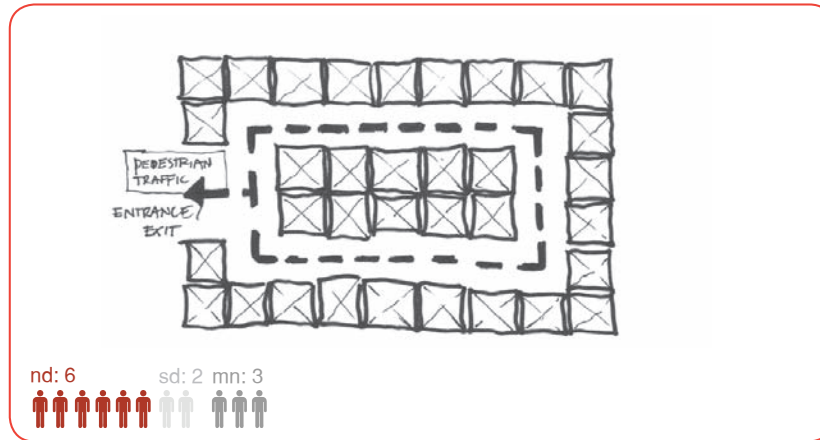


conducted survey | main questions

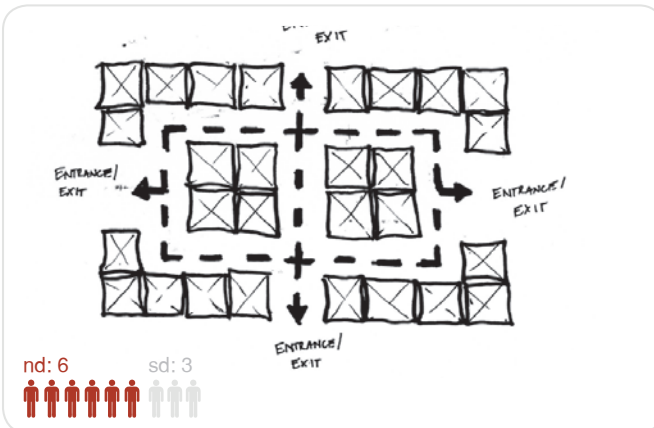
On of the last question asked vendors, what type of booth arrangement and control of pedestrian circulation would you prefer?



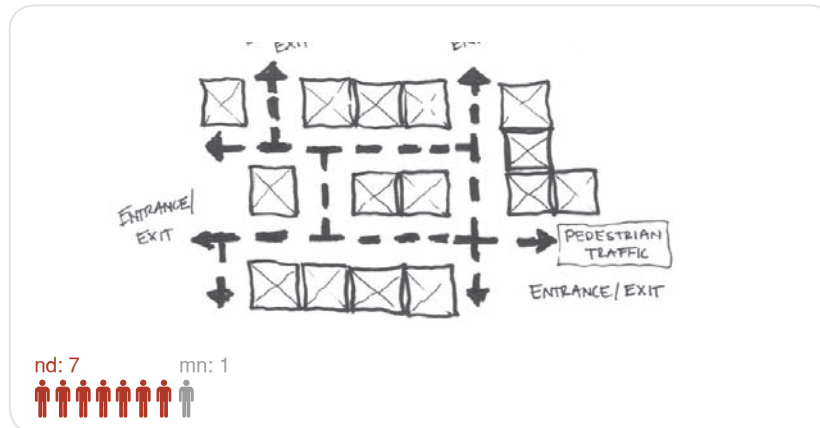
Semi-Controlled Booth Arrangement (24 vendors)
1st Preference



Very Controlled Booth Arrangement (11 vendors)
2nd Preference



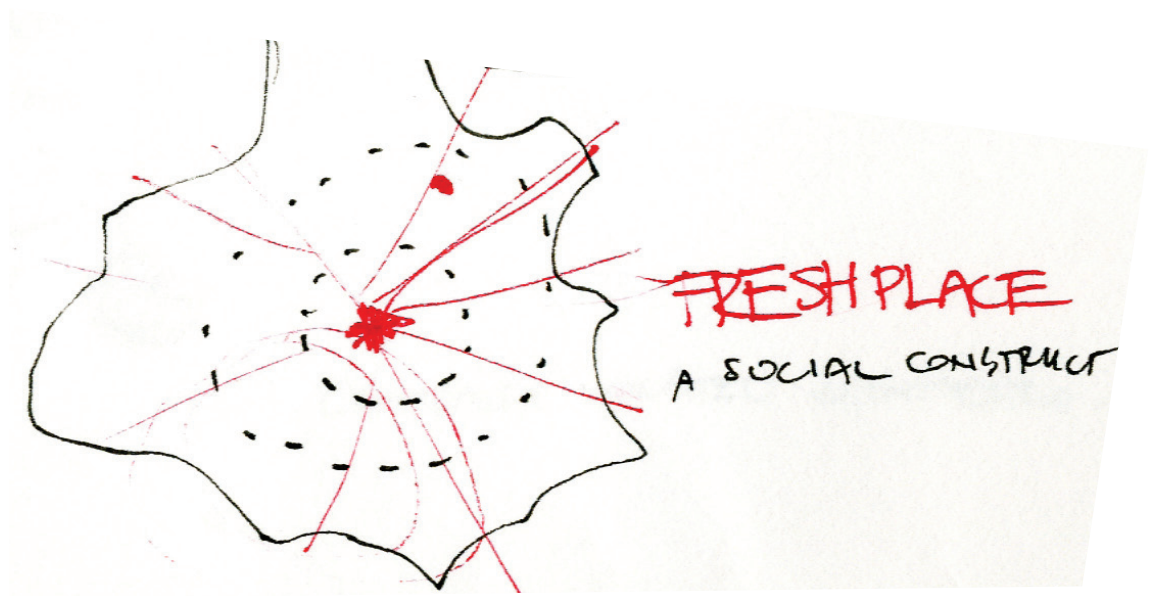
Little Controlled Booth Arrangement (9 vendors)
3rd Preference



No Control Booth Arrangement (8 vendors)
4th Preference

Results:

Vendors that responded felt that it is necessary to have some control of pedestrian circulation through the way their booths are arranged.



thesis goals

personal

A personal goal of this project is to challenge the community with a solution to a problem that currently exists with the Fargo-Moorhead current farmer's market system. Really, demonstrating to the public, and key stakeholders as to the market that the community could have.

professional

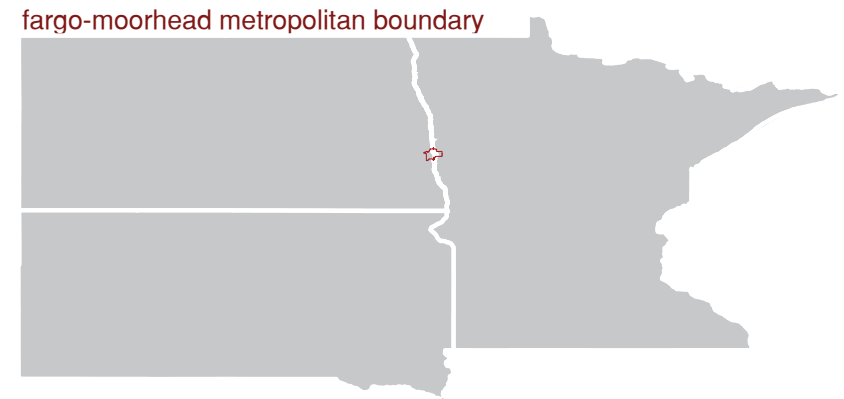
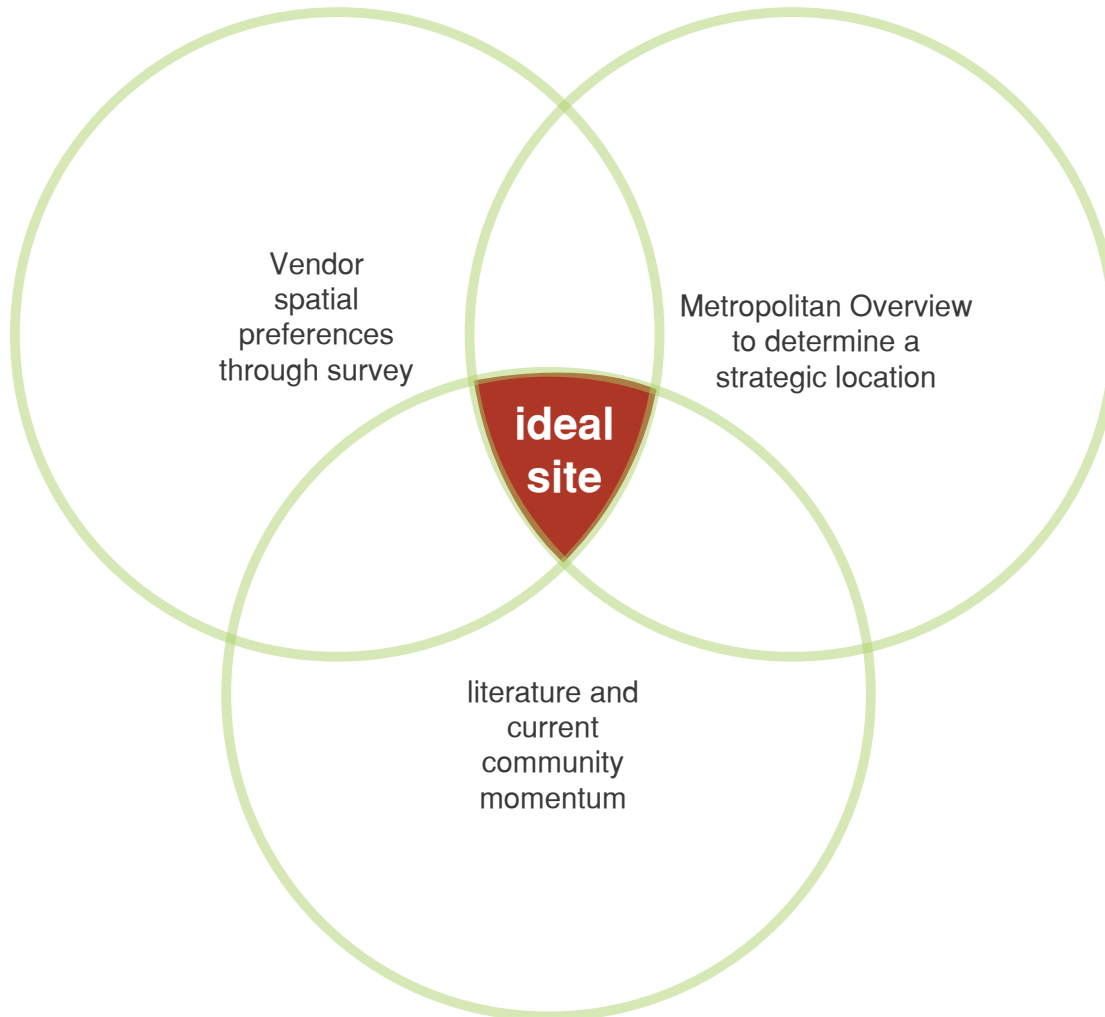
As mentioned prior, but getting the conversation started between the right people to truly evaluate the feasibility of a proposal like this and the potential of it being brought to fruition.

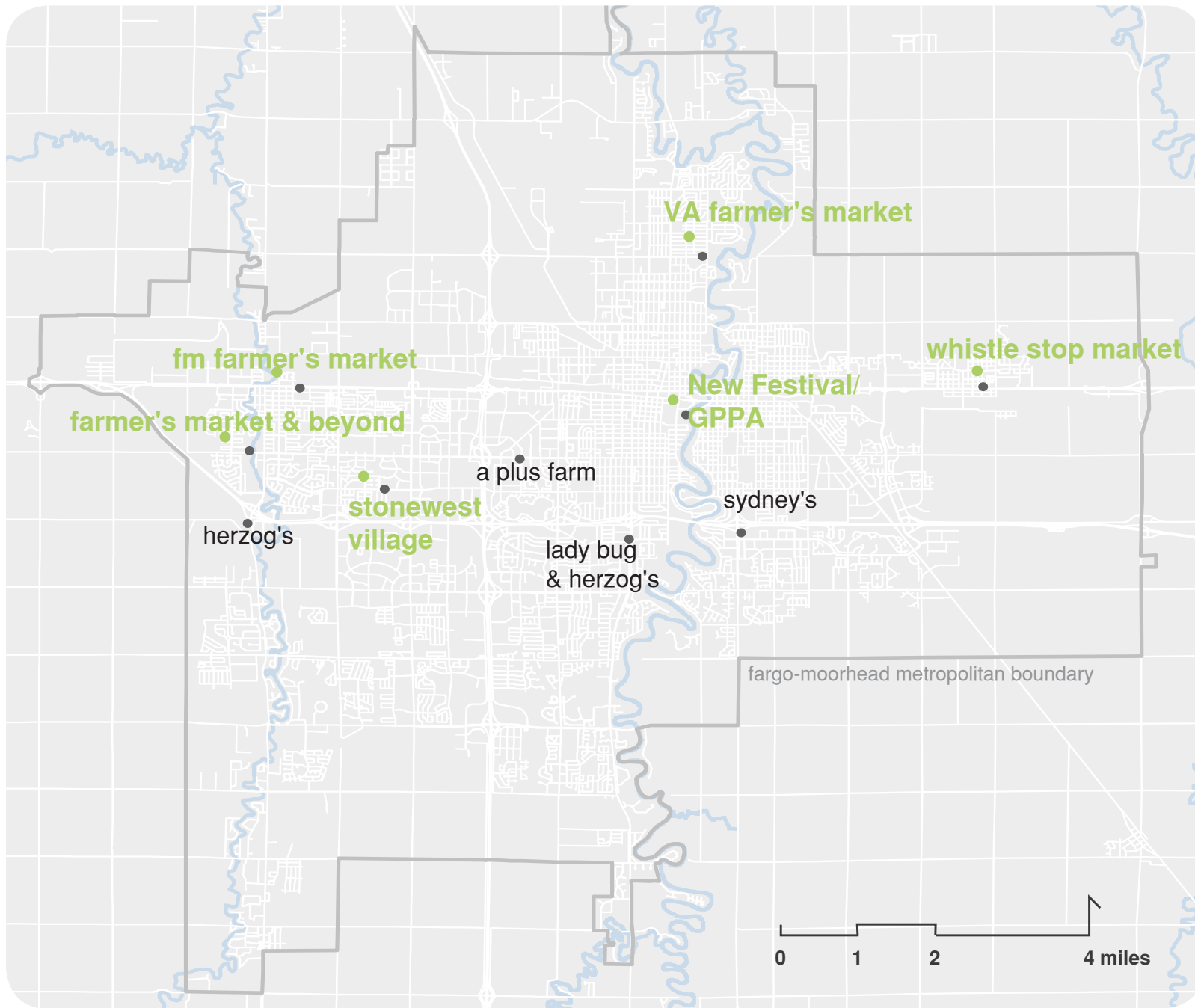
academic

An academic goal of this project is looking at how this project could really serve as a catalyst to future students by simply observing an issue in the community and capitalizing on a mindful solution to that problem. In addition, truly reflecting on who the key personnel are on a project and seeking their needs, preferences, etc.

site inventory & analysis | site selection criteria

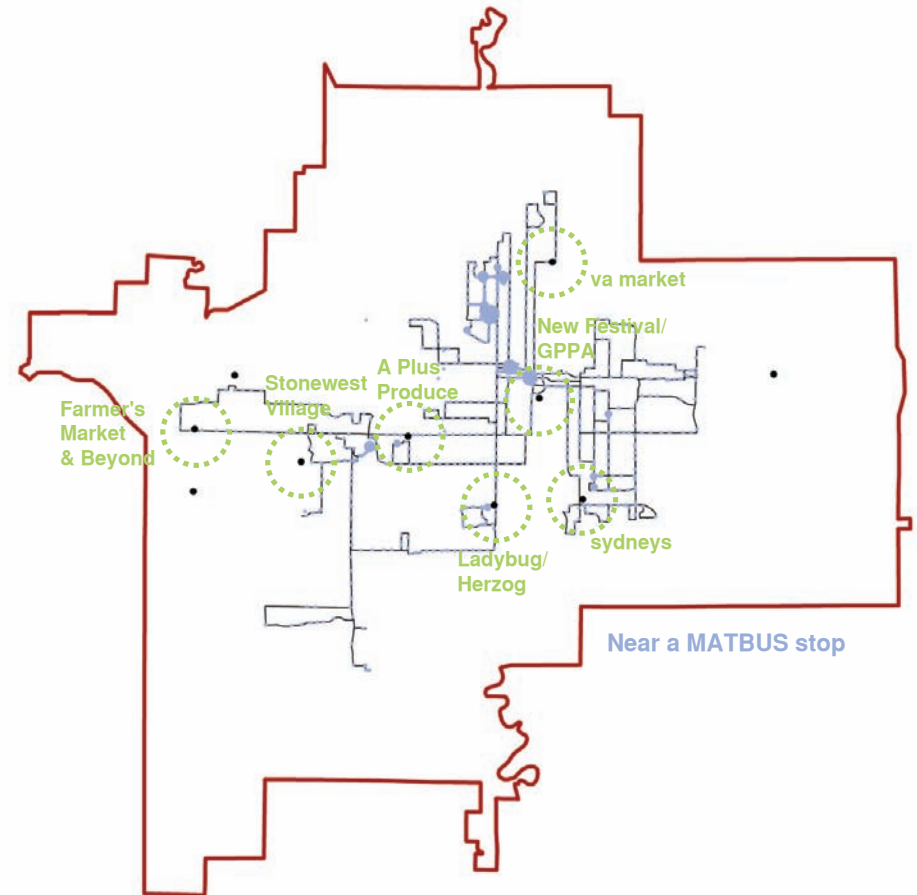
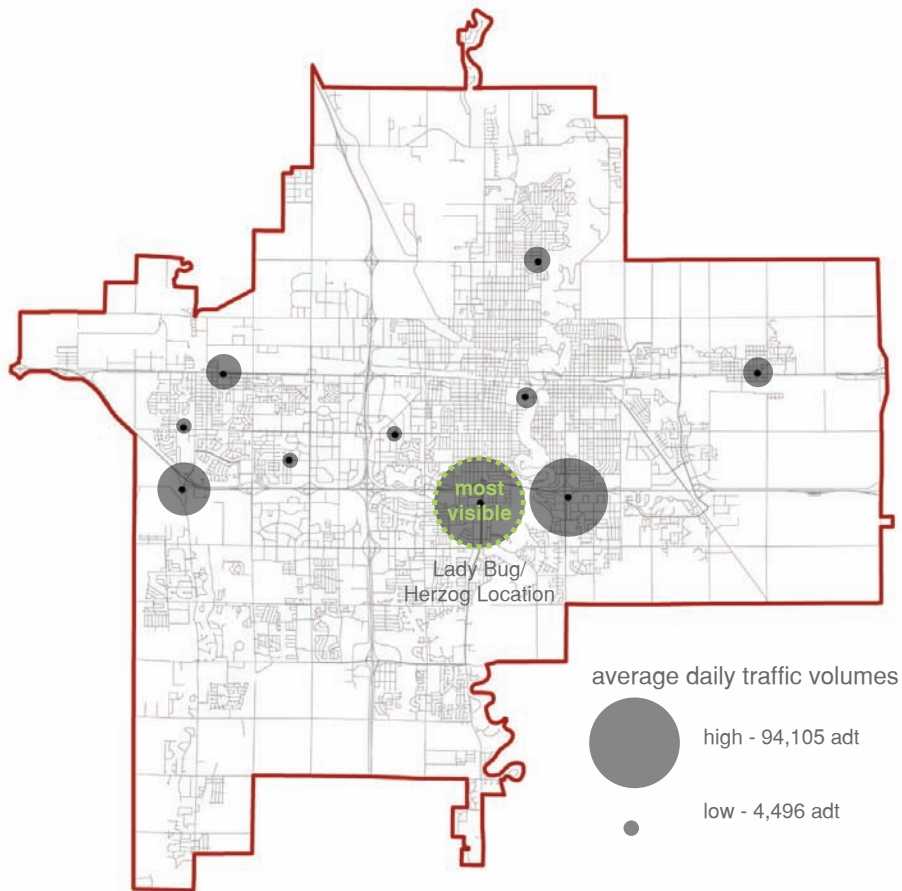
The proposed site of Fresh Place Market was selected based on a set of criteria using vendor preferences, community wants and needs, and GIS geographic analysis to provide insight to the most strategically located site as illustrated below. In identifying the ideal site through an archival record method (GIS analysis), using the existing farmer's market and produce stands were studied due to their locations already determined as good locations by current vendors.

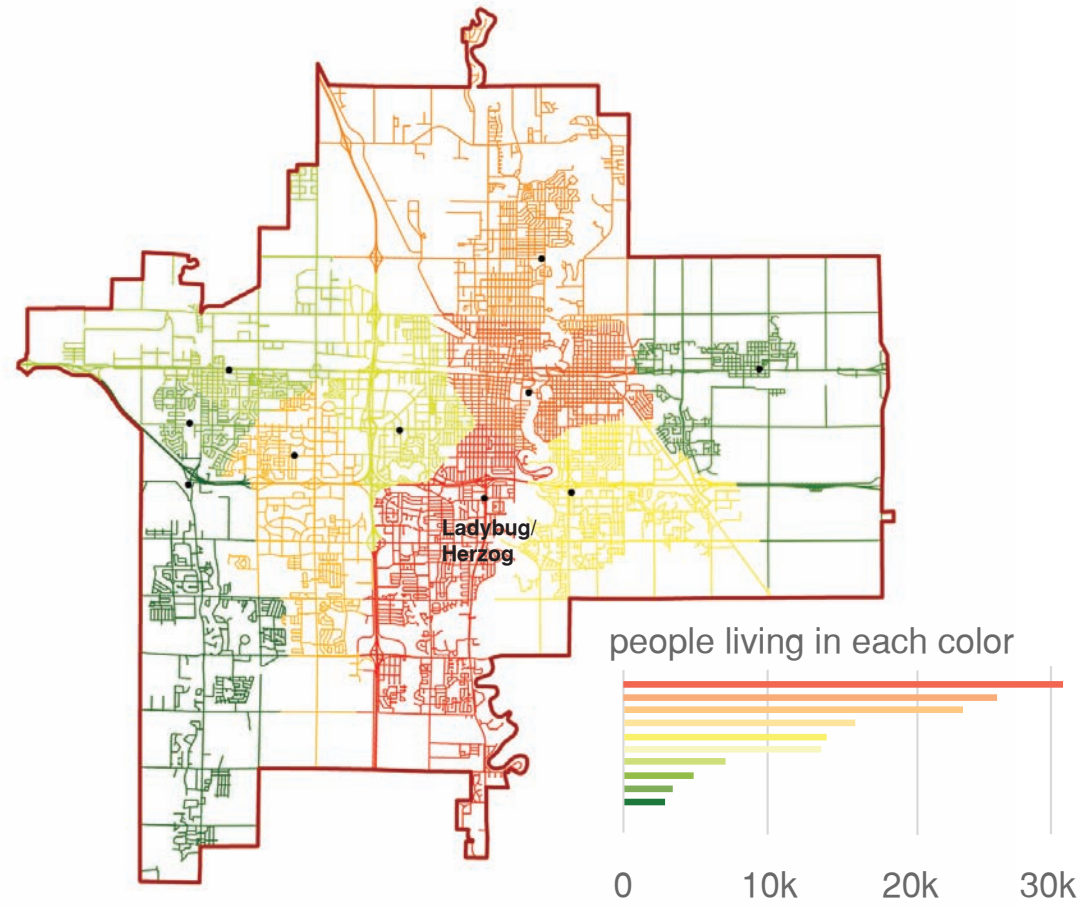
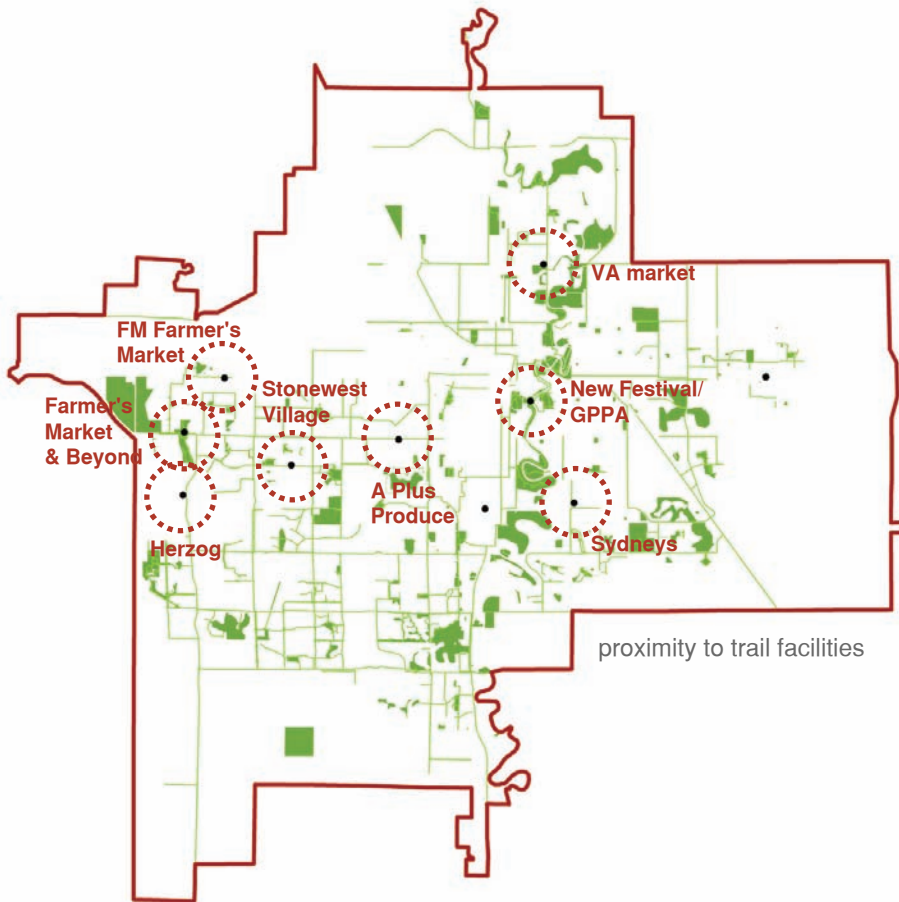




site inventory & analysis | site selection criteria

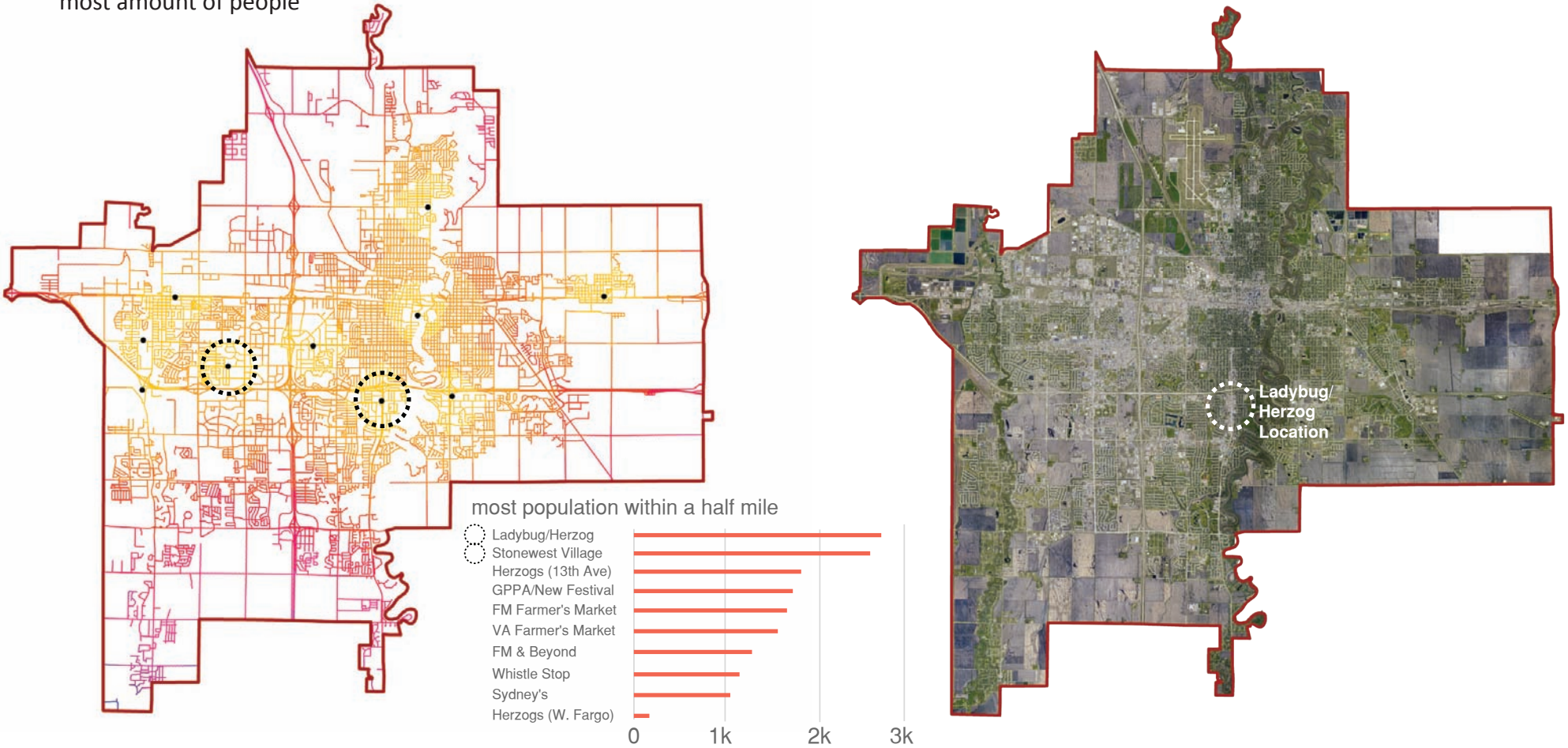
Using the metropolitan boundary and existing market and produce stand locations, identifying the most feasible location looked at a set of physical and social layers.





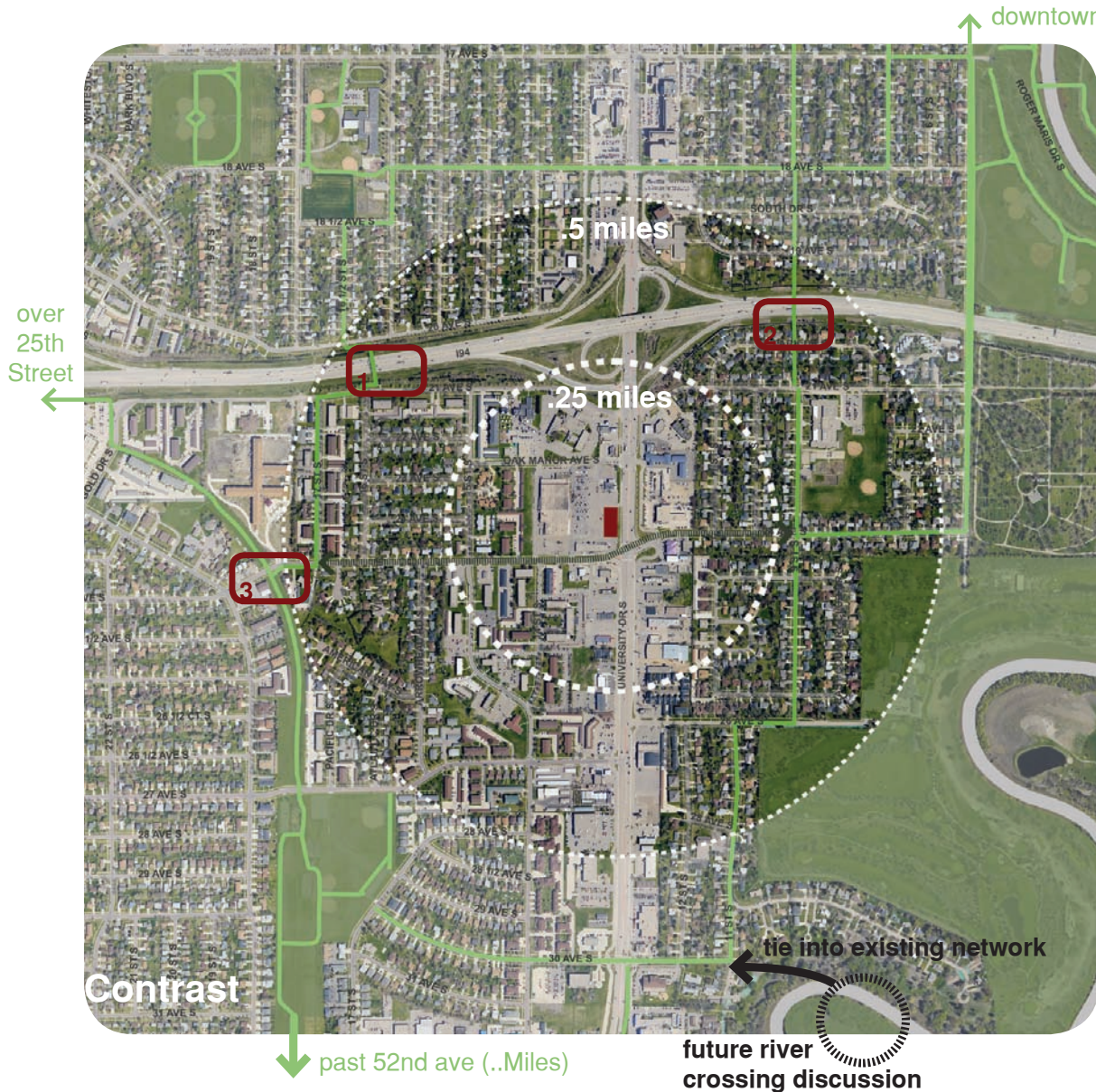
site inventory & analysis | site selection criteria

Through these layers the site that was chosen to further explore with a design solution was the University Drive location (Herzog and LadyBug stand) because it has the potential to incorporate community wants and visions, aligns with vendor preferences, it is the most visible site, accessible to most amount of people w/in half mile, close to transit stop, and the closest location to the most amount of people



site inventory & analysis

This site has the opportunity to support highly invested, city infrastructure that binds the site connecting continuous areas of residential properties. This site is the central point between two continuous bike and pedestrian trail networks.



Interstate 94 overpass



Interstate 94 underpass

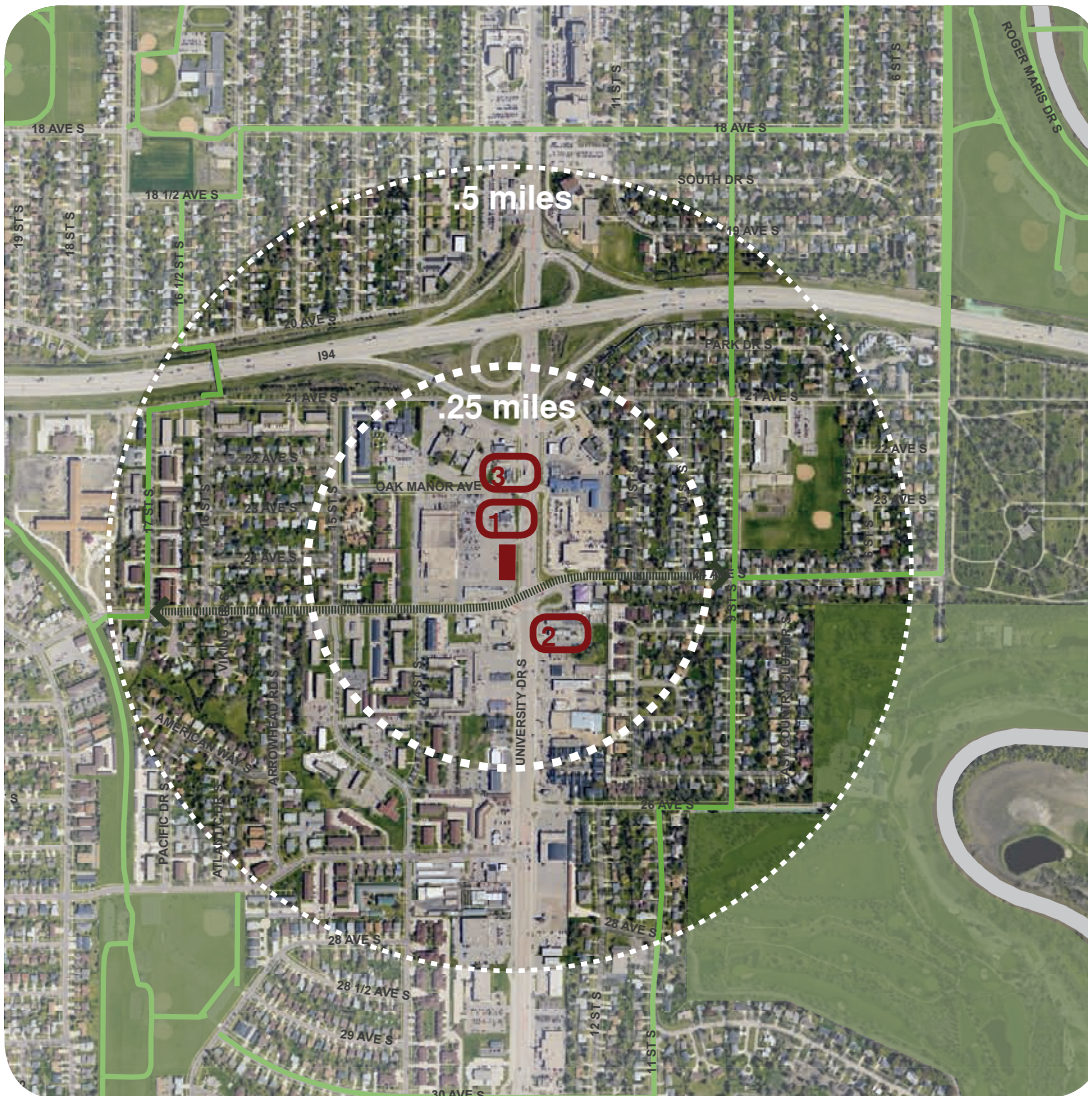


Bicycle/Pedestrian greenway



site inventory & analysis

The site and the immediate surrounding context lends itself to fast food chains and unhealthy food options. This site has the opportunity to contrast this existing condition and offer a “fresh” perspective and use to this part of town.



Burger King



McDonalds

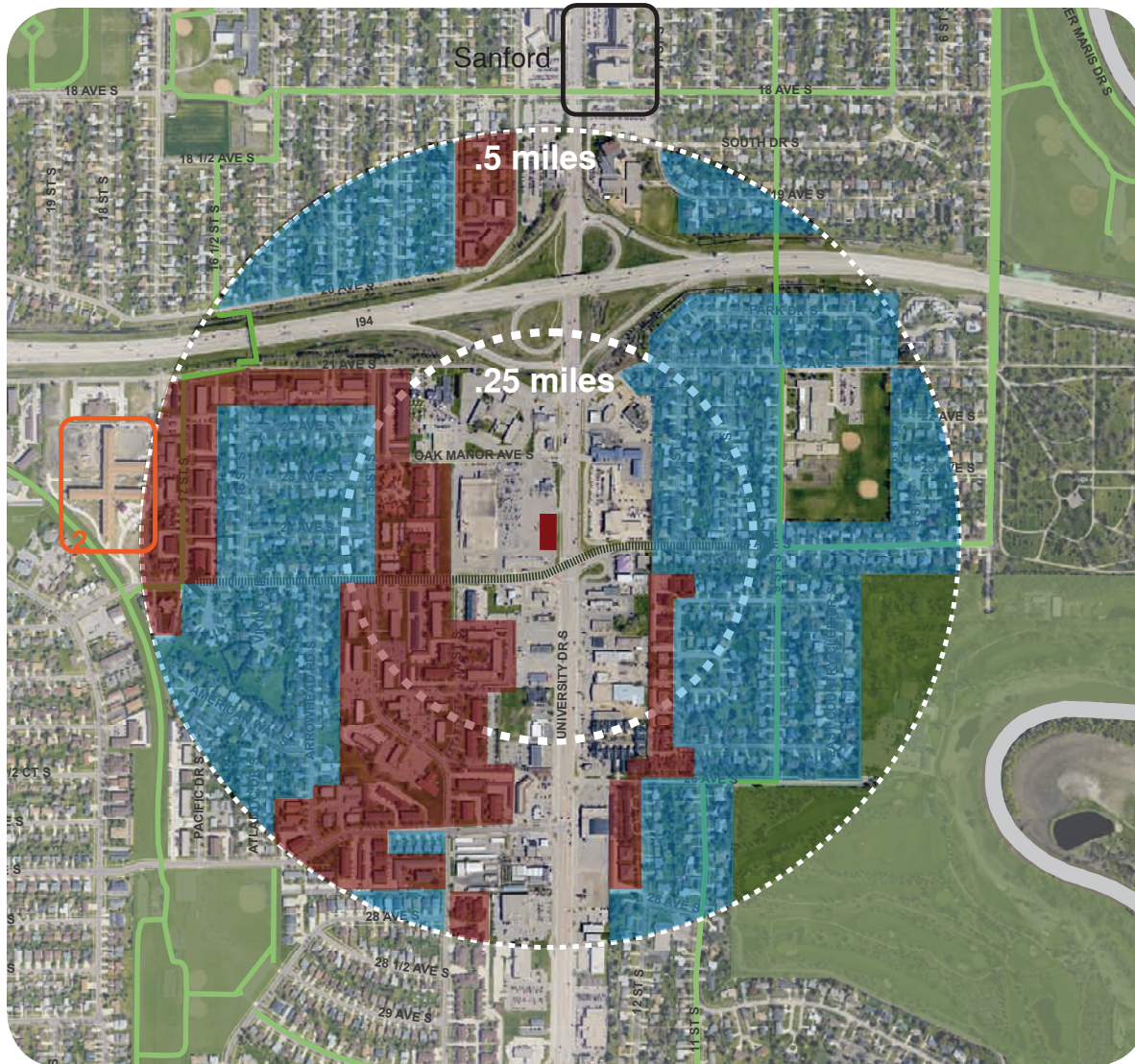


Taco Bell



site inventory & analysis

The site is deceiving because of the strip of commercial development along University Drive. It is actually encompassed by an abundance of single family and multi family residential areas.



Approximately 2,745 people live within a half-mile to the site



Multi-family housing



Retirement Community

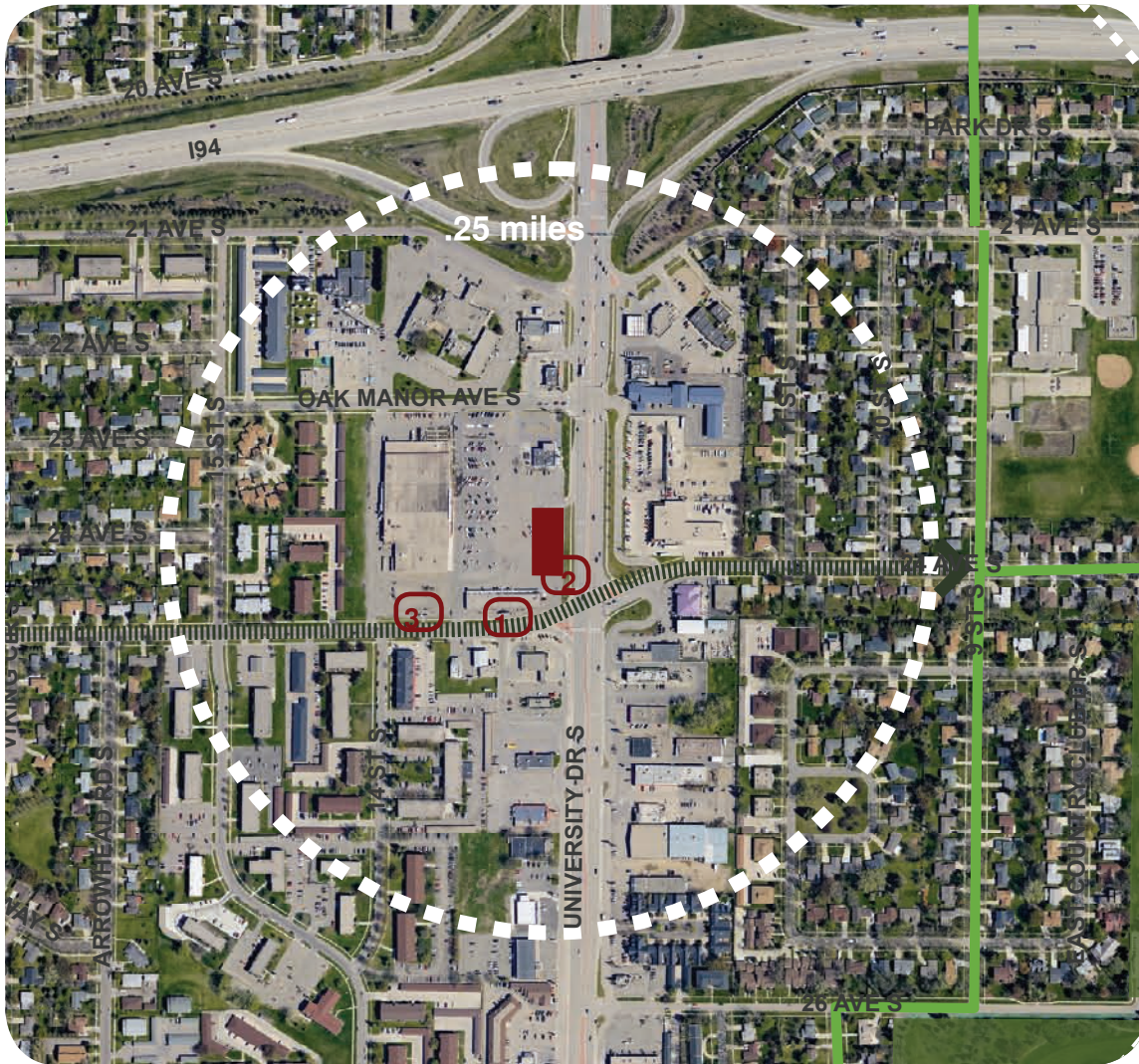


Single family housing



site inventory & analysis

It is beneficial to get the visibility from University Drive but it is also difficult for pedestrians to cross. Leveling the playing field between vehicles and pedestrians will benefit this space.



connect facilities



Existing sidewalk condition



Exposed/Void



Highly utilized transit stop



site inventory & analysis

Part of better understanding the site was asking the adjacent businesses what they thought of current produce stand operations. A majority of the feedback was either positive or they had no preference.

bottle barn liquors:

No issues with the current produce stands that set up in the summer.

They actually felt the stands have "benefitted business overall."

country hearth bread:

No comment on the positive or negative effect of the produce stands.

fm magazines

Owner enjoys the produce stands and mentioned it has no effect on his business. He did mention that vehicles travel at excessive speed through the parking lot.



check n go:

Employee mentioned he enjoys witnessing shoppers in the summer and stops occasionally himself.

smoke shop:

Recently moved into location so have not seen the produce stand operation in the summer months.

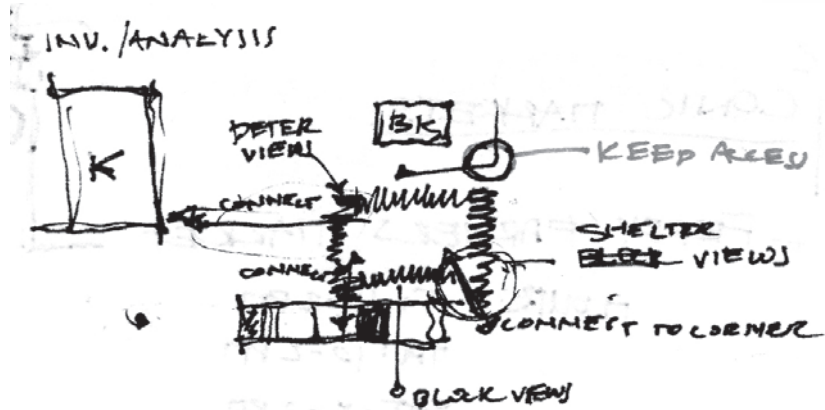
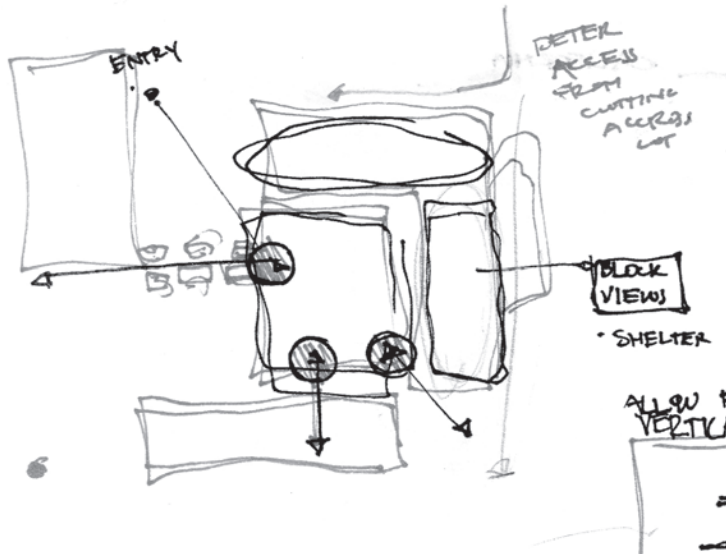


site inventory & analysis

Depicted on the aerial image below, the two colored properties are for sale. The green represents the proposed masterplan the overall proposed developable area.

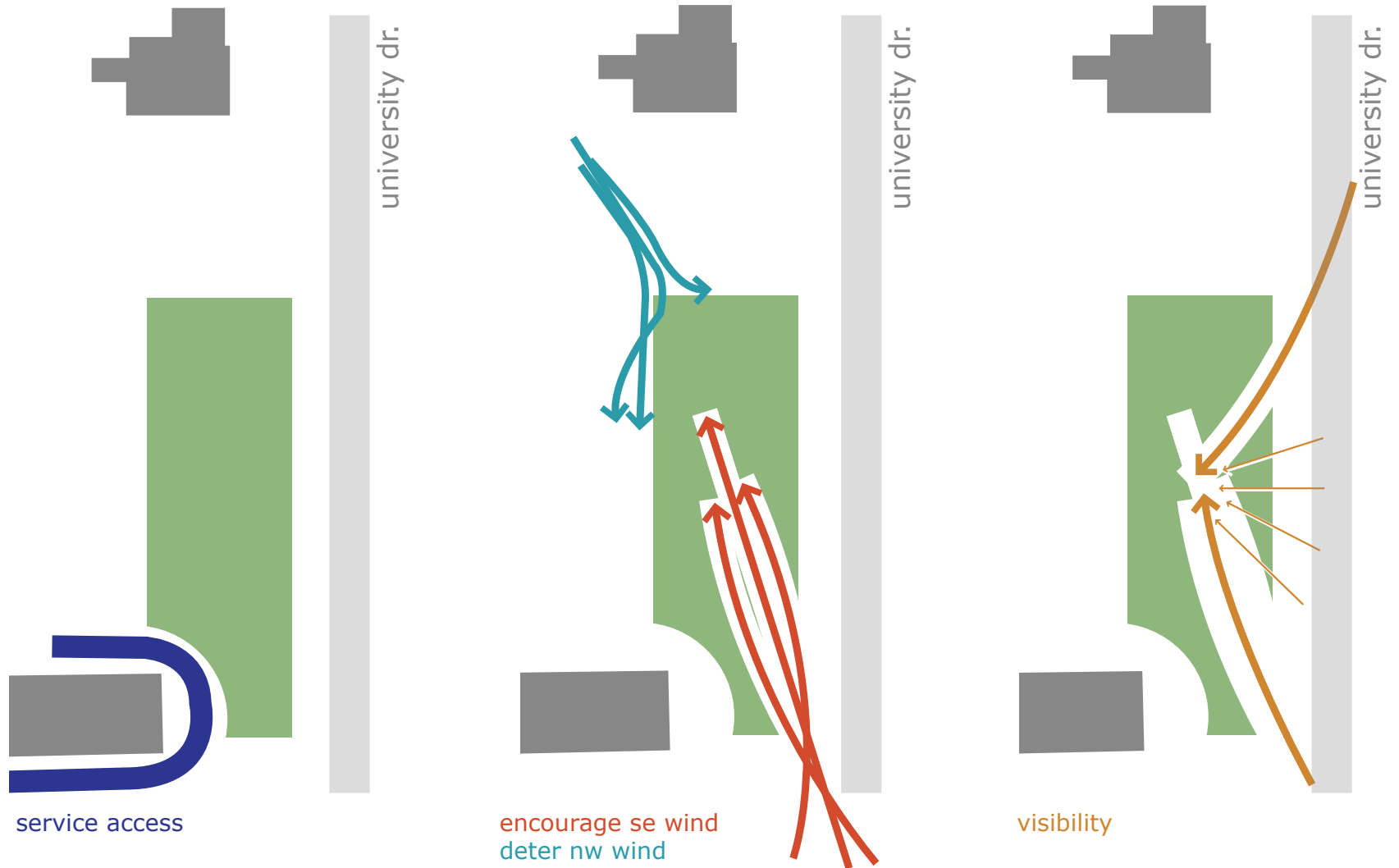


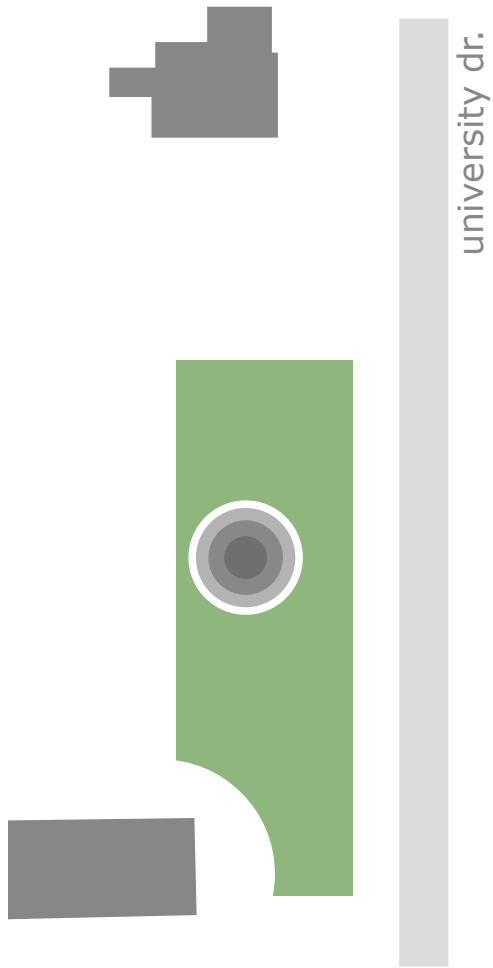
pre-conceived illustrations



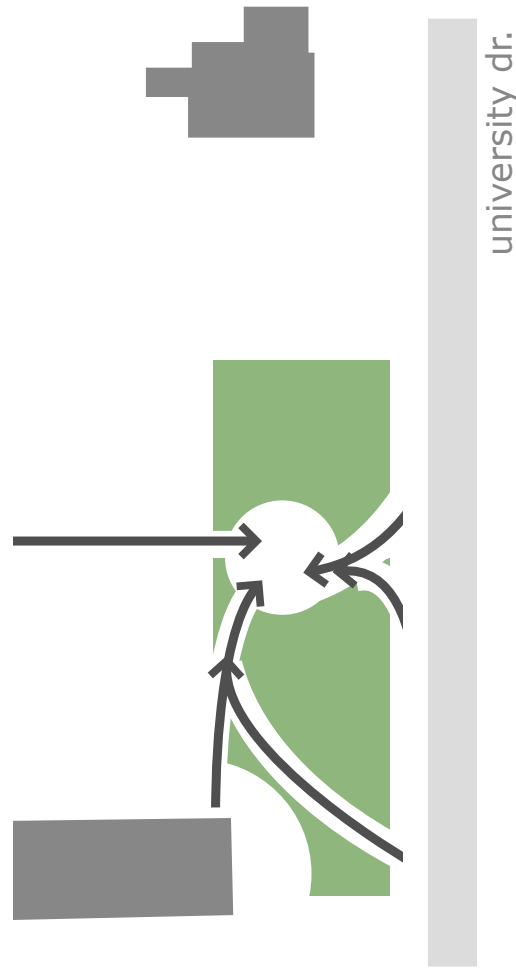
conceptual development

This series of graphics illustrate the overall thought process broken down into a simplified terms when looking at this existing site. Looking at each of the steps, they contribute in someway to community wants, and vendor preferences.

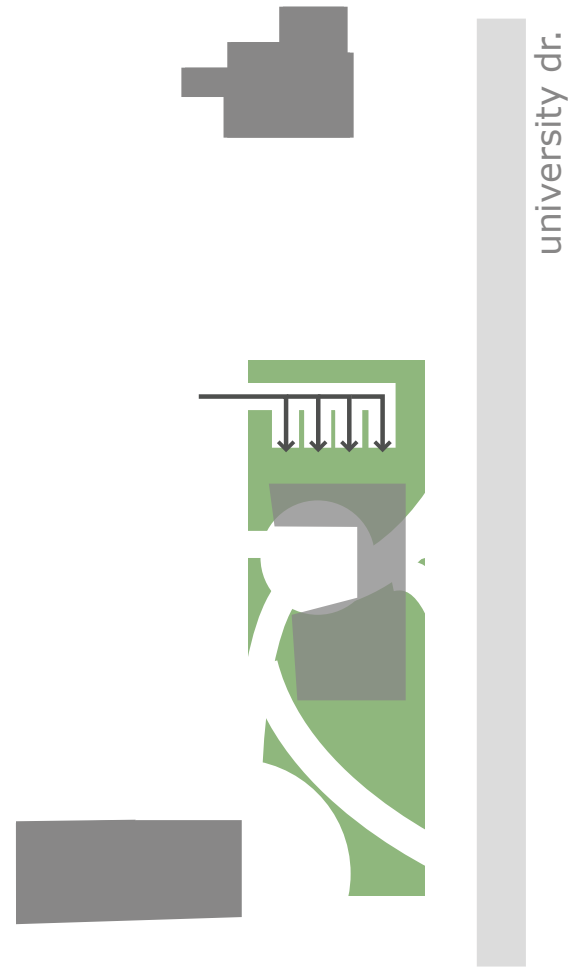




public space



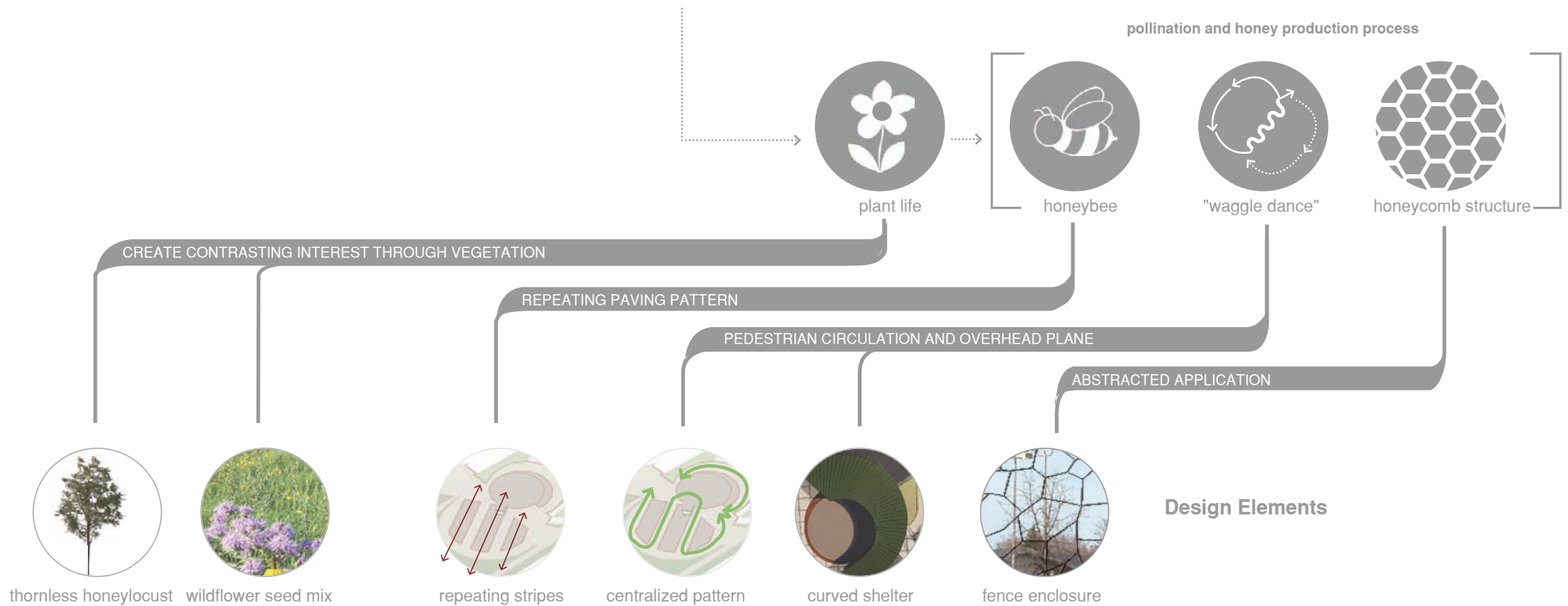
pedestrian access



vendor access cover

conceptual development | design inspiration

The design inspiration developed from the idea of natural forms and processes. The design specifically looked at elements that would contrast the existing conditions of the site consisting of gray fabric.





UNIVERSITY DRIVE SOUTH

- HELP TO GUIDE TRAFFIC THROUGH PLANTING MEDIANS IN THE PARKING LOT
- EXISTING K-MART
- KEEP EXISTING ACCESS TO MARKET
- RECESSED PARKING FOR VENDORS
- PUBLIC ART FENCE ENCLOSING THE MARKET
- RECESSED BACK-IN PARKING FOR VENDORS
- MULTI-PURPOSE PUBLIC SPACE
- CENTER SIDEWALK ISLAND FOR PEDESTRIANS
- GLASS SHELTER
- SOUTH SHELTER OPENS UP TO UNIVERSITY DRIVE EXPOSING THE MARKET TO PEOPLE
- MOUNDED AREA TO PROVIDE SENSE OF ENCLOSURE WHEN IN THE MARKET
- CONNECT TO EXISTING BUS ROUTE THROUGH PARKING LOT IMPROVEMENTS
- WIDEN PEDESTRIAN CROSSING AT UNIVERSITY

masterplan | final design

Taking a closer look at the masterplan and the specific layers of the site, materials used throughout the site gives you a clear understanding of the simplicity of this proposal.



flowering prairie mix



green tin roof



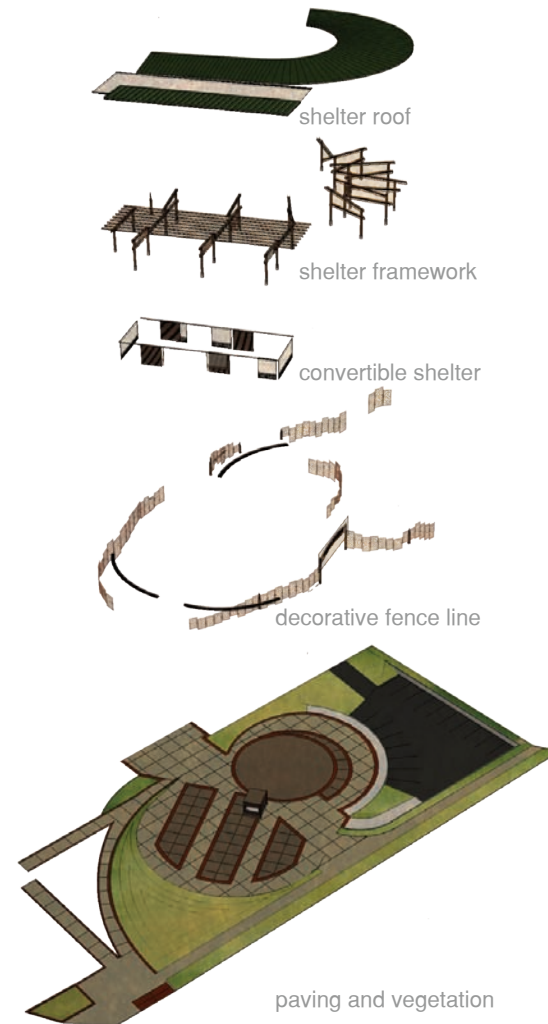
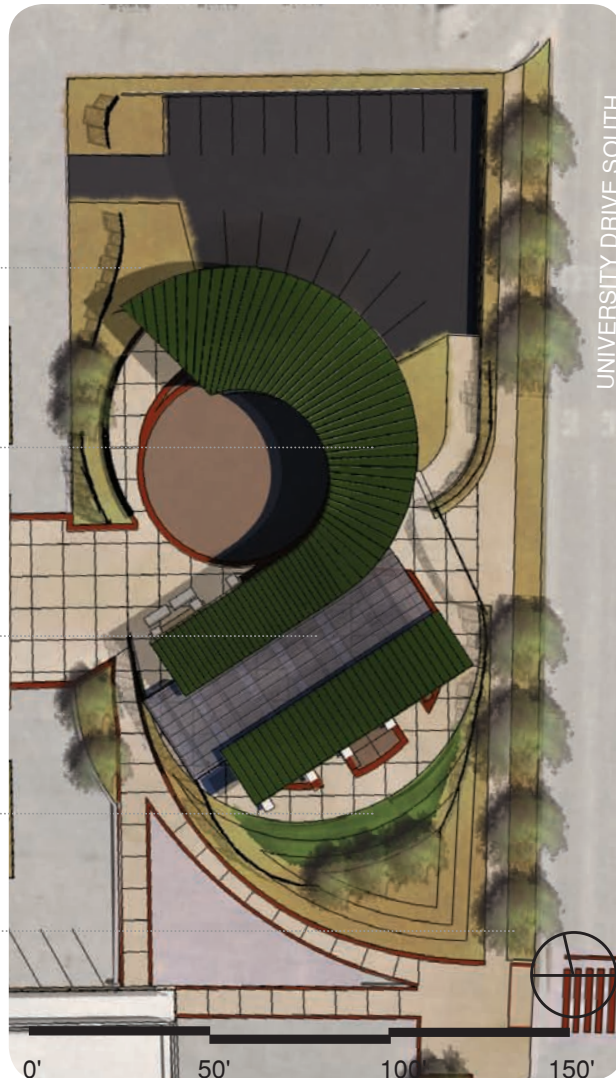
glass/permeable shelter



turf grass



honey locust



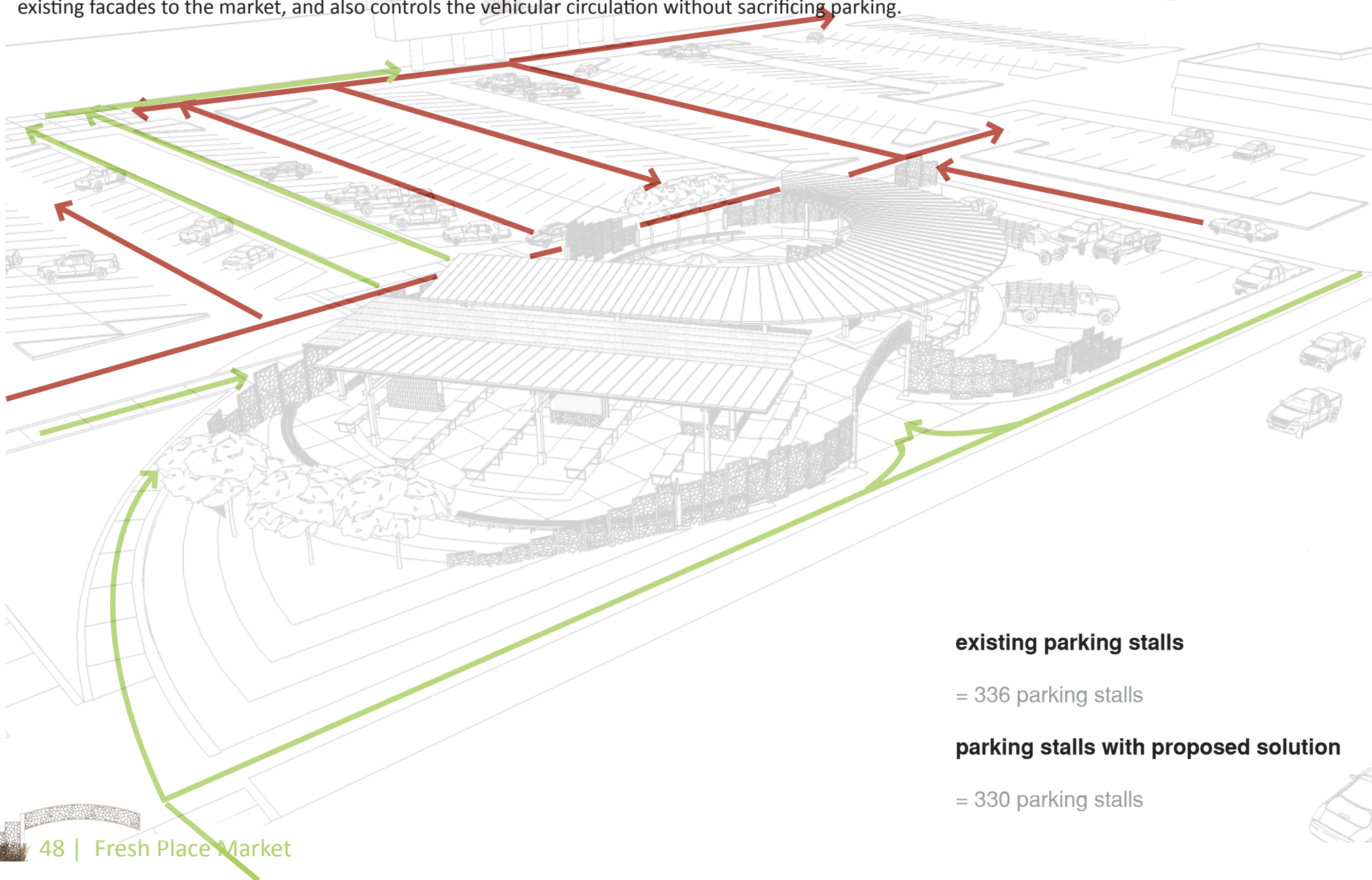
aerial view | final design

This an overall view of the market and how it fits into the immediate context but also illustrating the relationship of how this specific solution reaches some of the goals of public per the GO2030 plan.



site circulation | final design

The proposed site creates a safer walking environment by giving pedestrians more right of way through the connection of existing facades to the market, and also controls the vehicular circulation without sacrificing parking.



existing parking stalls

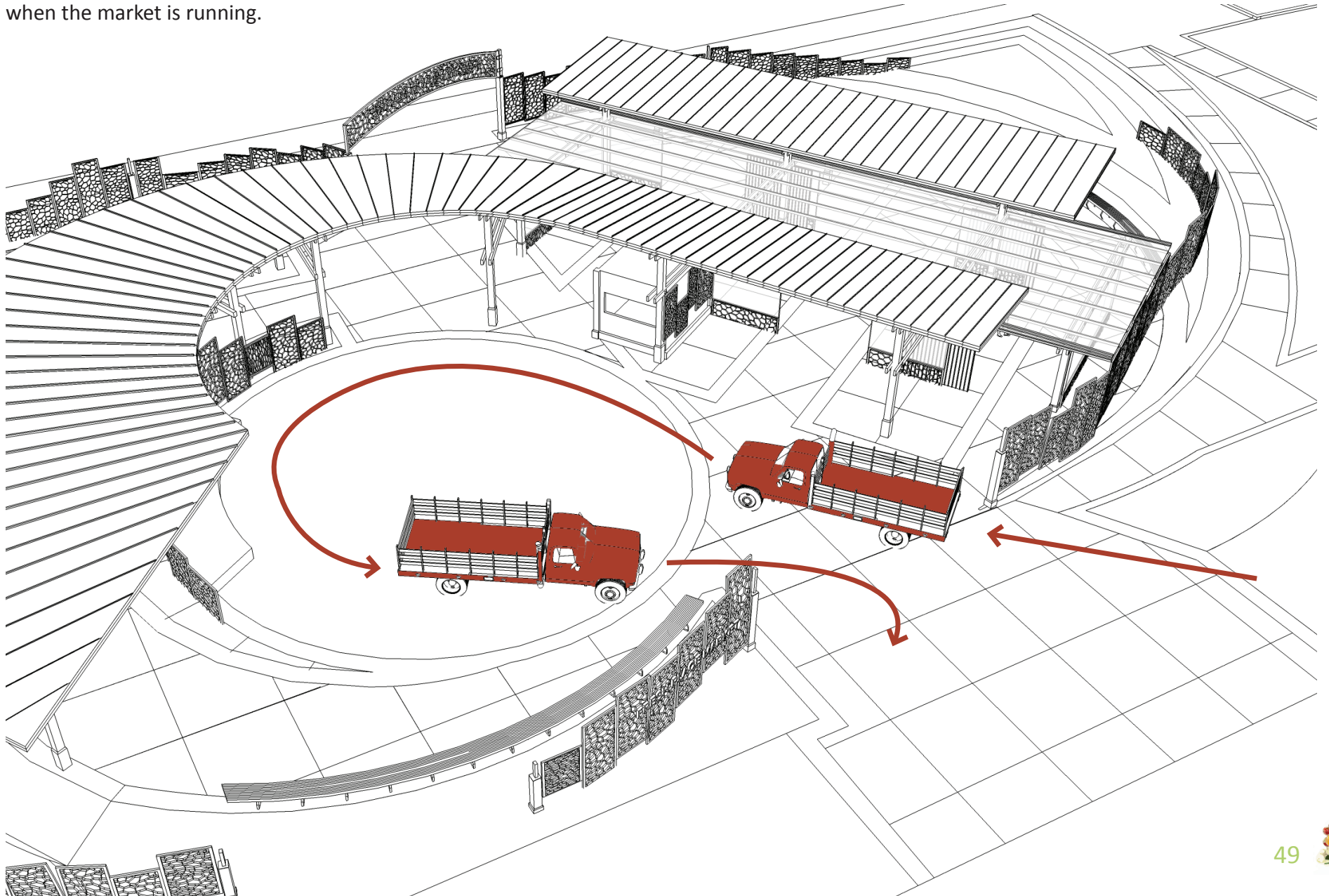
= 336 parking stalls

parking stalls with proposed solution

= 330 parking stalls

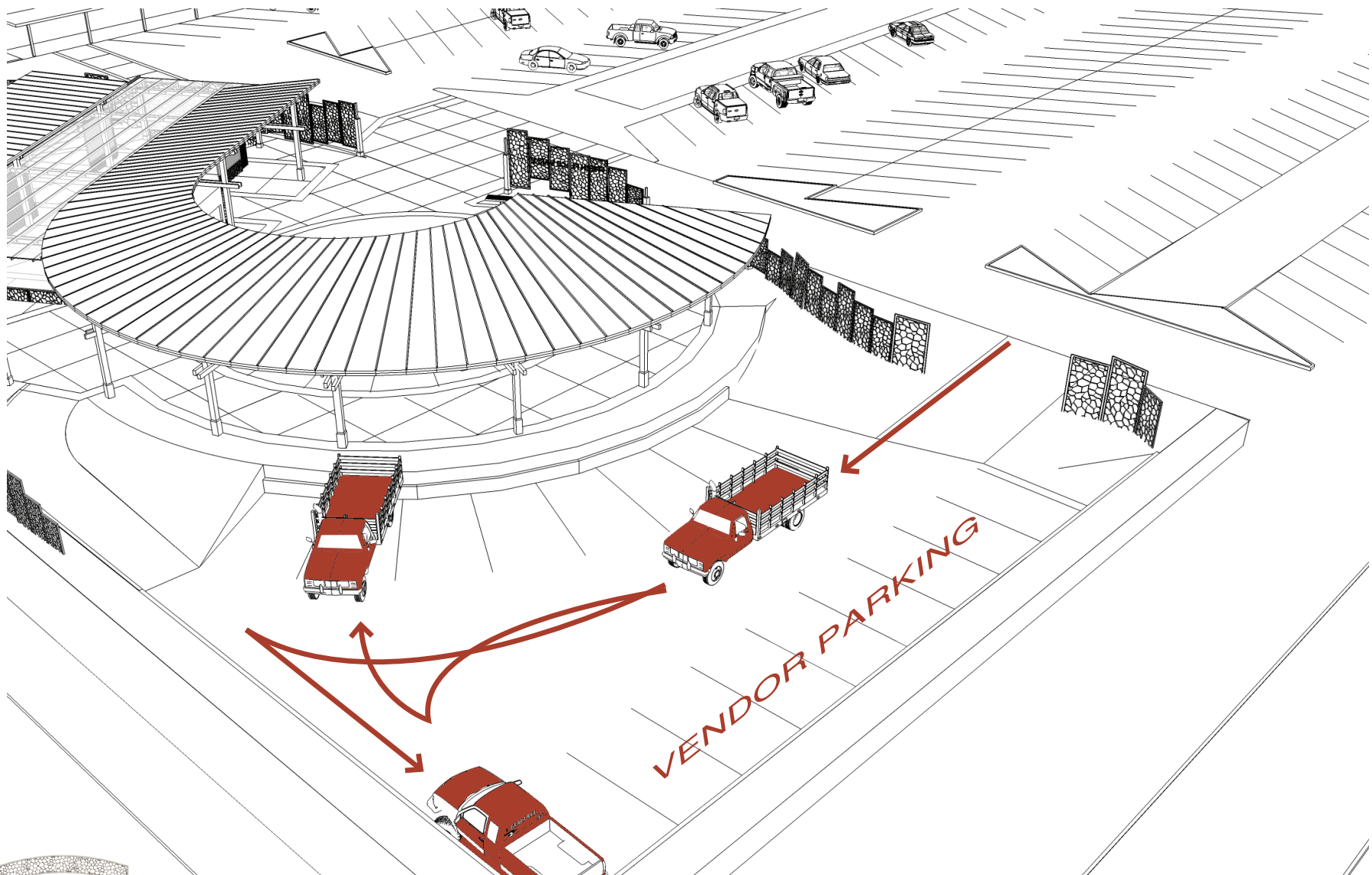
vendor access | final design

On market days, vendors can pull into the public space area and it can serve as a round-about unloading area for vendors to provide a closer accessible distance for the vendors. This solution would also not take away from the pedestrian experience when the market is running.



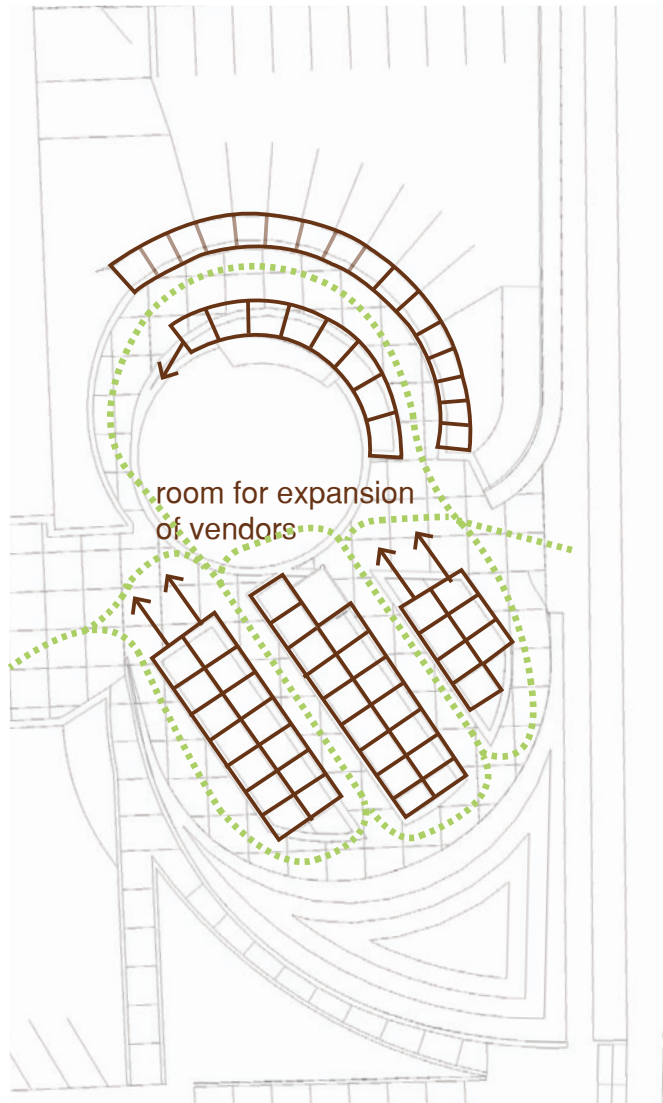
vendor access | final design

The north side of the site allows for vendor specific parking that reflects their preferences in terms of back-in stalls for easy access. These stalls may be charged at a higher fee by the market manager due to their convenience.

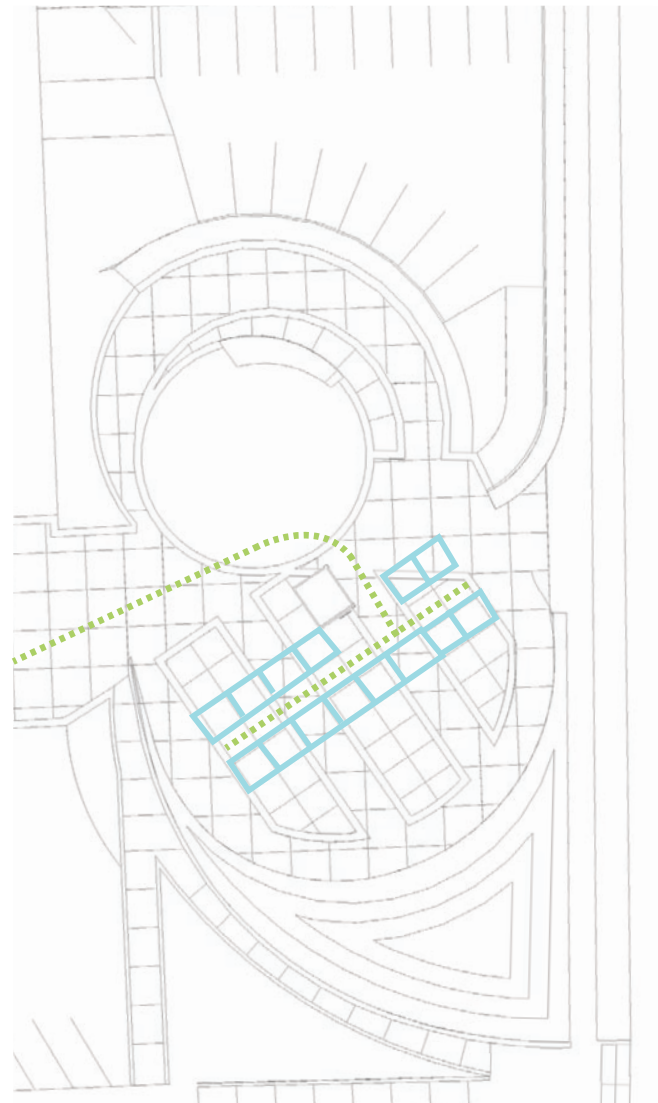


booth arrangement & pedestrian circulation | final design

On a typical market day, the drawings below illustrate the summer and winter booth arrangements along with their overall vendor capacity. Associated with the booth set-ups is the pedestrian circulation.



summer typical booth arrangement
60+ spaces

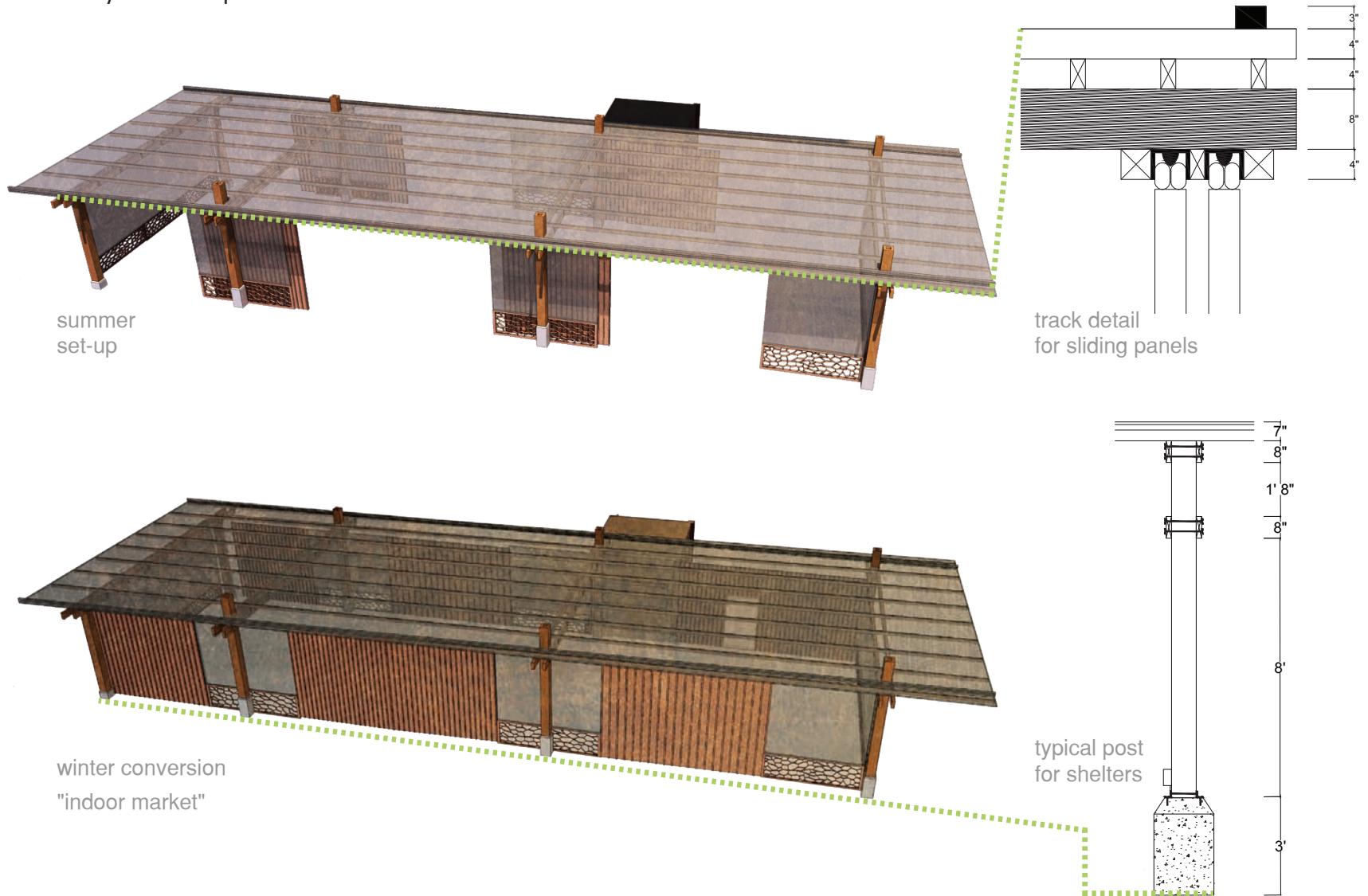


winter typical booth arrangement
14 spaces



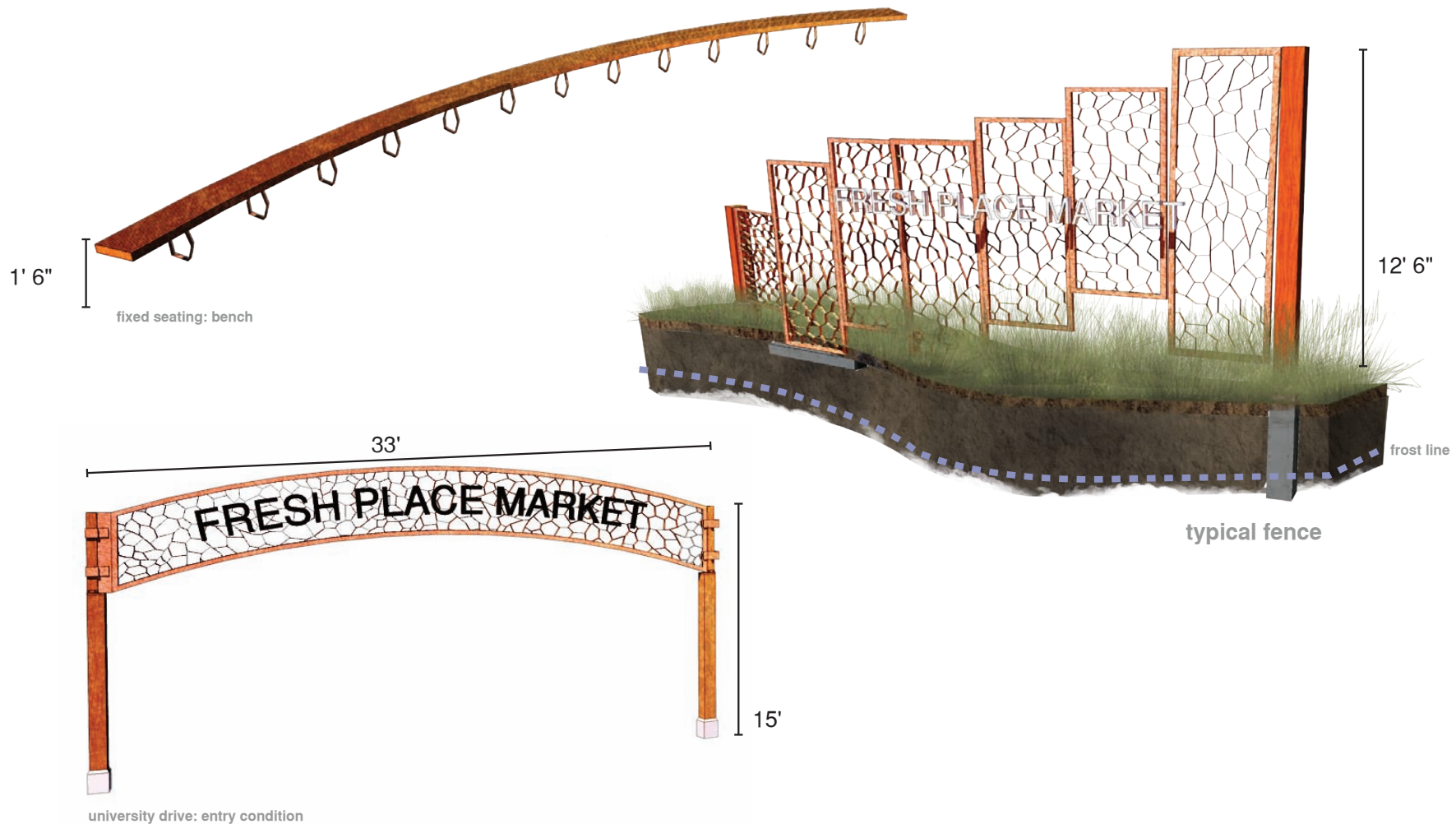
convertible shelter | final design

The centrally focused glass shelter has an adaptable component to it converting it from an open-air outdoor market in the summer to an indoor- enclosed space in the winter. The intent is that this market could operate year round encouraging vendors to experiment with year round production methods.



site furnishings | final design

These are few of the site furnishings that would exist on the site, using consistent materials and textures to tie the overall landscape together. Additionally, using materials and forms that contrast the immediate context to really create a new experience to this part of town.



in the market | final design

This perspective illustrates what it could be like in the market during a typical day. A key goal with the whole design was to consider the human-scale and create an intimate experience for customers and the vendors.



public space | final design

The public space would be dynamic in the sense that it could function to what the market needs were for that particular day. In this example, it is simply acting as a resting, gathering space for the people attending the market.



public space | final design

Again, this public space can transform into more of an open space that could host cultural events or other types of entertainment requiring a lot of space. In this example, the idea is embracing a festivity that reflects some of the local culture in the Fargo-Moorhead area.



conclusion

Just to re-cap, this thesis is supporting the idea that through the evaluation of the existing Fargo-Moorhead metropolitan area farmer's markets and produce stands, designing a permanent solution to the highly visible, multi-modal accessible location while being mindful of vendor and community preferences will increase patronage, community awareness, and vendor participation.

For something like this to become a reality, it takes a lot of people coming together and identifying it as a priority within the community. The idea is that this research will serve as a catalyst that will continue to be studied and analyzed for the future of the Fargo-Moorhead farmers market system.

limitations and discussion

This study highlighted FM vendors responses in Minnesota, North Dakota, and South Dakota and their preferences in terms of location, other activities, type of environment, booth arrangement, and marketing strategies. It also evaluated the existing conditions of the thirteen farmer's markets in the Fargo-Moorhead Census defined Urban Area Boundary in conjunction with real distance measures, and the allocation of each market. It is important to understand the spatial qualities of a FM and how it can affect the overall success of a FM, especially with the future design program of an existing Fargo-Moorhead urban area FM. This research expands ideas from other researchers that have studied the social interactions that occur at a FM. Hunt (2007) and Alonso and O'neil (2010) are examples of studies that have explored consumer perspectives on why the consumers were attending these markets. However, nothing specifically focused on the location, type of environment, or physical arrangement of the FM space. This study is meant to contribute to their ideas but to begin understanding the physical factors that contribute to attracting not only consumers but vendors as well.

Through the use of a pictorial survey, vendors were able to clearly understand the intent of the questions that used sketches. Some of the highlights of the survey are that vendors were pretty evenly set on the idea of a FM residing in an urban (41%) or suburban setting (39%). The suburban setting could arguably be said to have been the ideal setting because there were more combined first and second ranks of forty given to the suburban setting. The urban setting only had a combined first and second rank of thirty-five. The suburban setting became the focus of the location for the continuing research of a specific site based on that question.

If the vendors were customers, 49% of the vendors felt that permanent outdoor space with permanent shelter, and other outdoor social activity would attract them to a FM. Currently, no FM in the Fargo-Moorhead urban area has a permanent shelter. If this is what FM vendors in the region think will attract more patronage and encourage entrepreneurship of farmer's markets, then the city of Fargo (2012) may consider something to help based on their GO2030 Comprehensive Plan. Thirty-nine of the vendors were actually able to mention other activities they witnessed at markets that contributed to the overall successful social aspects at various farmer's markets.

A conflicting question used the same sketches to ask the vendors what their preferred parking choice would be and the vendors to no surprise chose the most convenient option for them; parking . As discussed in the results, one of the vendors from Cando, North Dakota mentioned, "accessibility has to be for the customers. I can unload my vehicle and move it as a vendor rather than take up space for a customer to get closer to the vendor area. It also looks neater without vehicles as part of or right next to vending areas." This is a valid argument that their needs to be a compromise between vendor and consumer accessibility. It cannot be a 100% even scenario; something has to give. If vendors want more access for consumers, they may consider compromising some of their access.



The results that used GIS to understand the farmer's markets and how they fit into our existing urban area and population was informative. Applying the .54 mile actual distance that was determined by the Mid-America Regional Council, (1998) this study used polyline graphics in GIS software to represent the actual route people would take in order to access each market. The market that had the most people living within the .54 mile distance is the Lady Bug Acres Produce Stand (# 5) at approximately 2,700 people. This FM location is also the most accessible to the most people in terms of the thirteen allocations from Figures 13 and 14 in the discussion chapter with a little over 30,000 people.

Approximately 51% of vendors thought the semi-controlled booth arrangement was the best alternative in terms of guiding pedestrians through the FM. An interesting note is that most of the current FM in the Fargo-Moorhead urban area does not have this type of spatial set up even though the vendors surveyed prefer this booth arrangement.

This study expands ideas from current research dealing with space such as the research suggested by Griffin and Frongillo (2003) about farmers trying to ensure that a location of a FM was accessible to a broad range of customers while being able to attract multiple modes of transportation. This is a major reason why this study was implemented to explore how accessible the Fargo-Moorhead farmer's markets are. Applying the cost allocation tool in GIS software, the locations were clearly illustrated by walking and bicycling. Some of the allocating along the river differed from the automobile allocation. In other words, some of the markets such as markets 1, 11, and 13 from Figure 14 are more accessible by walking and bicycling than automobiles, in terms of distance, due to the fact there is three pedestrian bridge crossings in the Fargo-Moorhead urban area. A couple strengths of this study are it combined two data collection methods using a pictorial survey to collect information and the amount feedback received from the vendors.

Throughout this research, there are a few limitations that exist. First of all, this study specifically pertains to the Fargo-Moorhead and the tri-state region. However, it may be a study that could be applied using a similar process to evoke change in a current FM system for a community. Another limitation is the time of year that this research is being performed. The research is just beginning and a majority of the markets have already ended for the season. Connecting with the consumers of the FM in the area was not an option. This is another reason the pictorial survey was given to FM vendors. However, providing questions that were geared towards the space and how it can enhance the social identity with the consumers helped.

In the Fargo-Moorhead urban area, this study could serve as a guide to any future FM development in the region. With the consensus from more vendors in the tri-state region than vendors that serve the urban area, this could really benefit the community in terms of understanding what type of future infrastructure, plans and most importantly location could be considered to make a space that encourages consumer and vendor attendance at a FM in Fargo-Moorhead urban area. In the end, creating FM as a more vital part of this community.



past design studio experiences

2nd Year | Fall 2009-Spring 2010

LA 271 Introduction to Landscape Architecture Studio | Kathleen Pepple

- Tea House
- Fine Arts Club

LA 272 Parks and Open Spaces Studio | Matt Chambers and Dominic Fischer

- Woodlawn Park
- 1st and N.P. One Way Conversion

3rd Year | Fall 2010-Spring 2011

LA 371 Environmental Art and Site Design Studio | Stevie Famulari

- Defining Space project
- Snow Symposium
- Library Installation

LA 372 Community Design Studio | Kathleen Pepple

- Fort Yates Equestrian Center
- Chicago Neighborhood Project

4th Year | Fall 2011-Spring 2012

LA 471 Urban Design Studio | Jay Kost

- Denver Urban Infill Project

LA 472 Environmental Remediation and Plant Design Studio | Tyler Kirchner and Dominic Fischer

- St. Paul Ford Assembly Plant
- Woodlawn Park

5th Year | Fall 2012-Spring 2013

LA 571 Environmental Planning Studio | Mehran Madani

- Fargo Civic Center Redevelopment

LA 572 Design Thesis Studio | Matthew Chambers

- Fresh Place Market: A Permanent Farmer's Market Solution



personal information

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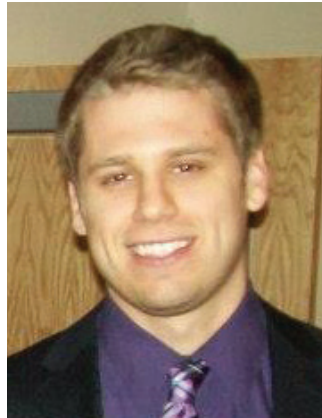
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“My time spent at NDSU has been quite the journey but has been filled with many memorable experiences! NDSU has blessed me with opportunities, friends, and most importantly a direction towards where I want to be professionally.”



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Appendix A

Fresh Place: A Social Construct

Survey to Farmer's Market Vendors

Jake Coryell

Landscape Architecture Program

North Dakota State University

Questions based on the Current Experience

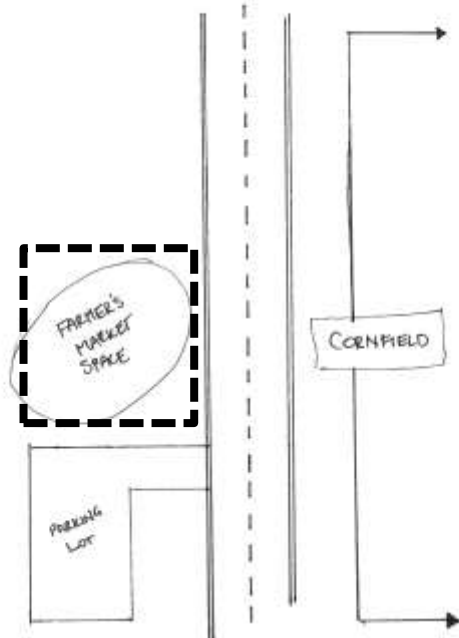
- 1.) Which farmers' markets have you participated with in the last fiscal year (Summer 2012)?
Check all that apply.

- A Plus Farmers Market Stand**, 13th Ave S and 32 St S, Fargo, ND 58103
- Down by the Dike**, Dike East Park, 100 2nd St S, Fargo, ND 58103
- Farmer's Market and Beyond**, 500 13th Ave W, West Fargo, ND 58078
- Great Plains Producer Association's Farmers Market**, Dike East Park, 100 2nd St S, Fargo, ND 58103
- Herzog's Country Fresh Produce Stand**, K-Mart parking lot, 2301 University Dr. S, Fargo, ND 58103
- Herzog's Country Fresh Produce Stand**, Scheels parking lot, 3202 13th Avenue South, Fargo, ND 58103
- Herzog's Country Fresh Produce Stand**, Gravel pull off on Sheyenne St by the I-94 exit, Fargo, ND 58078
- Hildebrant's FM Farmer's Market**, 349 Main Ave E, West Fargo, ND 58078
- Stonewest Village Farmer's Market**, 4955 17th Ave S, Fargo, ND 58103
- Sydney's Health Market**, 810 30th Ave S, Fargo, ND 58103
- VA Farmer's Market**, 2101 North Elm St, Fargo, ND 58102
- Veggie Barn Produce Stand**, K-Mart parking lot, 2301 University Dr S, Fargo, ND 58103
- Whistle Stop Farmer's Market**, Whistle Stop Park, 14th St NE, Dilworth, MN 56529
- Other:** _____

- 2.) On a typical farmer's market day, approximately how many of your customers do you recognize?

- 0-10
- 10-20
- 20-30
- 30+

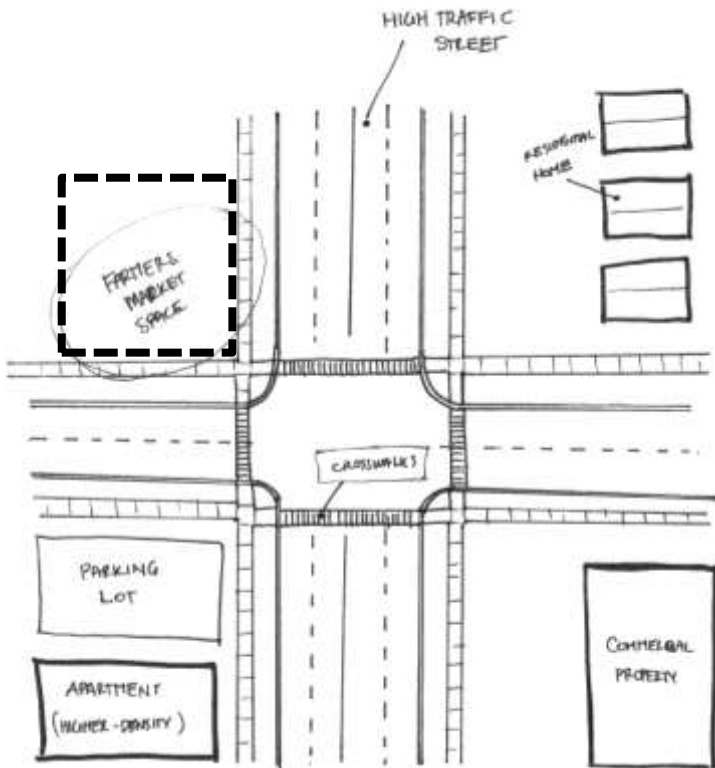
3.) Which of the following types of farmer's market locations would be attractive to you as a vendor? Rank 1-4, 1 being the most attractive in terms of location.



Rural Setting:

- Mainly Accessed by Automobile
- Close to only a few residents

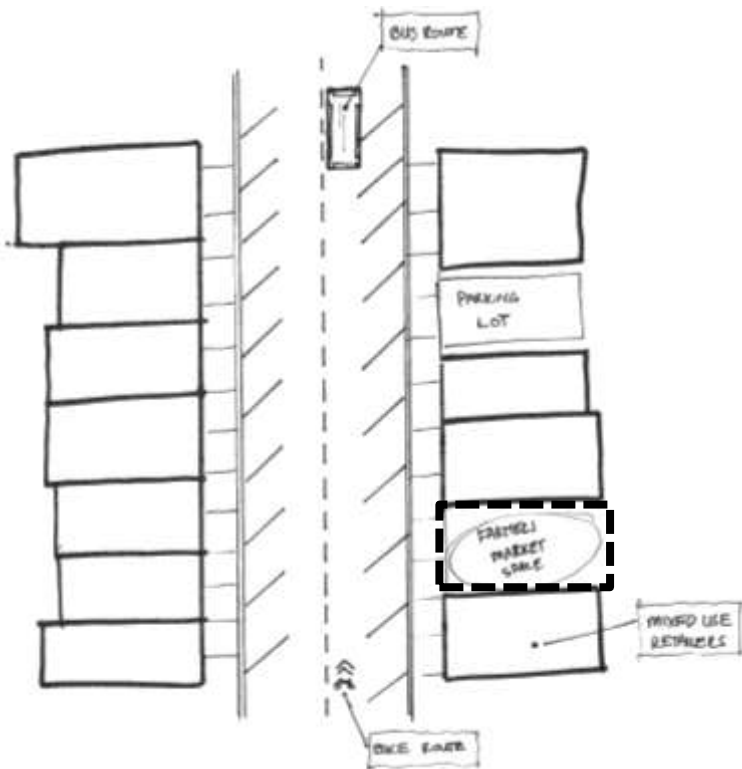
Rank: _____



Suburban Setting:

- Intersection Corner
- Close to :
 - Variety of establishments
 - High-traveled vehicular street
 - Concentrated populations of people
 - Bus-routes
 - Sidewalks

Rank: _____

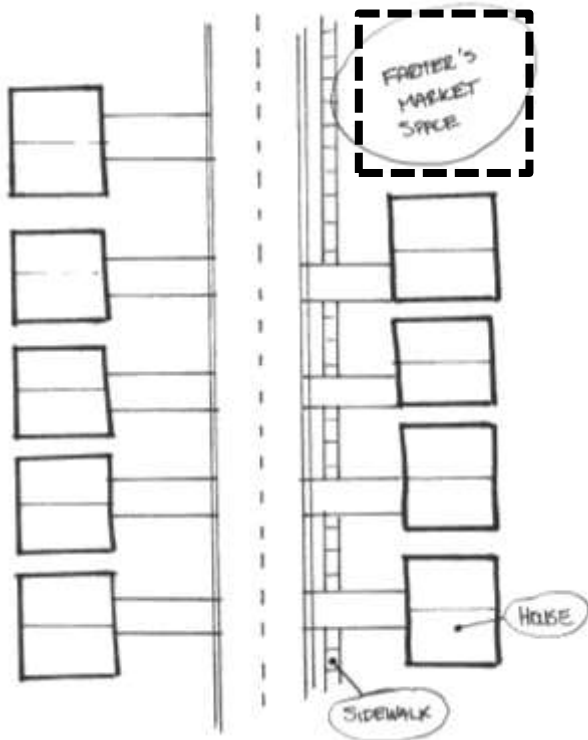


Urban Setting:

Close to:

- Variety of businesses
- People living downtown
- Bus Route
- Bike Routes
- Sidewalks

Rank: _____



Neighborhood Setting:

Close to:

- Neighborhood Residents
- Bike Routes
- Sidewalks

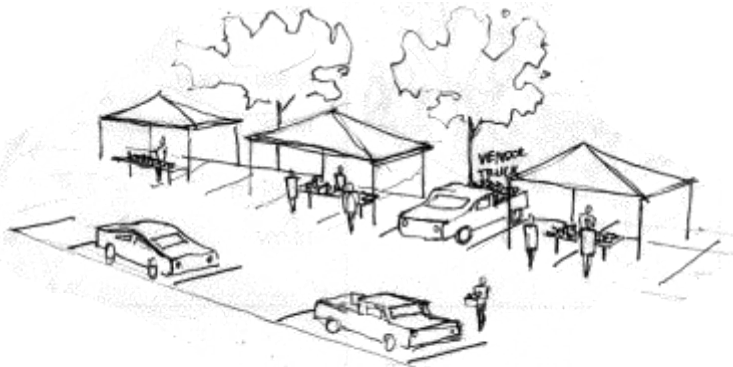
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4.) If you were a customer, which of these types of environments would attract you to a Farmer's Market? Rank 1-4, 1 being the most attractive.

Temporary Outdoor Space:

- Parking Lot Set-up
- Easy Car Access

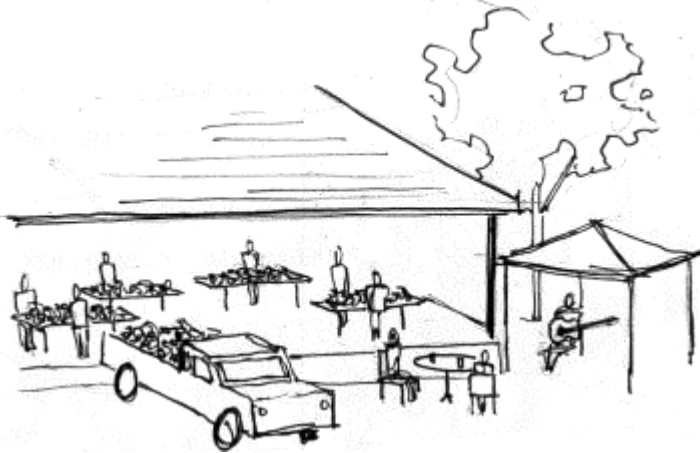
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Permanent Outdoor Space:

- Permanent Shelter
- Other Outdoor Social Activity

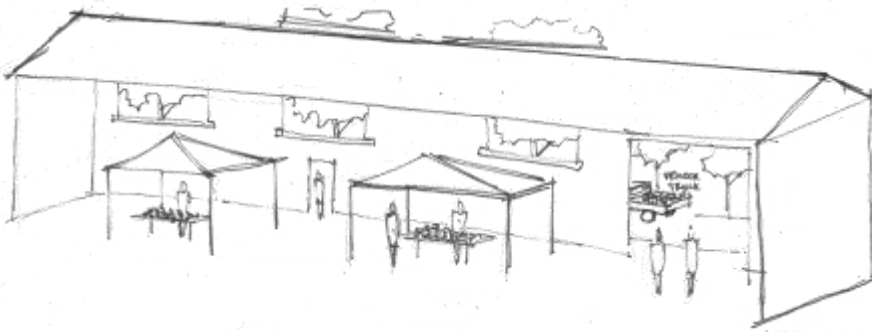
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Permanent Indoor Space:

- Permanent Shelter
- Street Parking

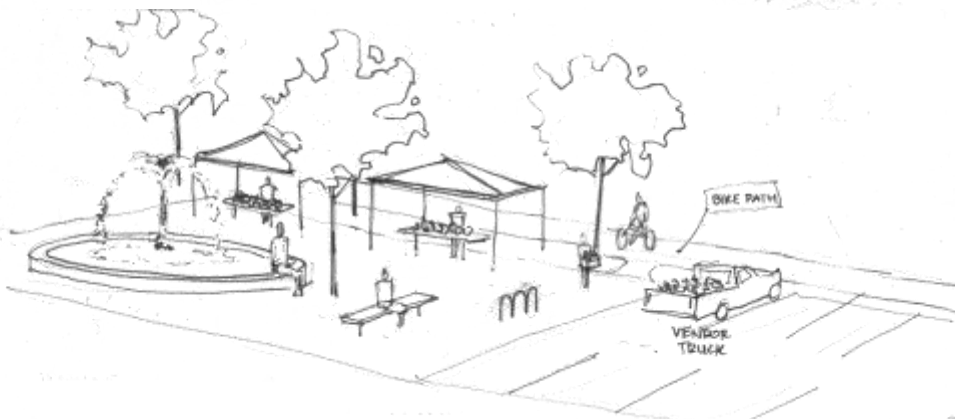
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Multi-Use Outdoor Space:

- Landscape Amenities
- Parking Lot

Rank: _____



4a) Are there other activities you have witnessed at a farmer's market that you have participated in?

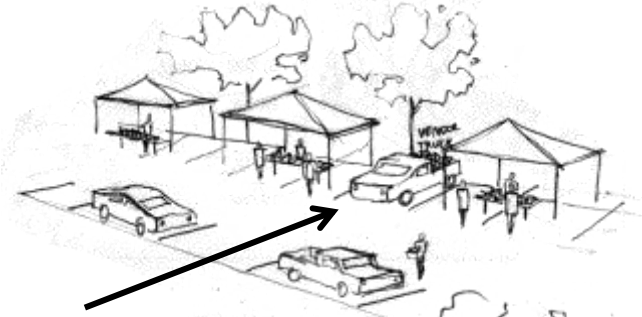
4b) Are there any other activities you would like to see?

5.) As a vendor, which type of environment appeals to you the most in terms of "vendor accessibility"? Rank 1-4, 1 being the most favorable arrangement

Park in the parking lot next to vendor booth:

- Easily accessible

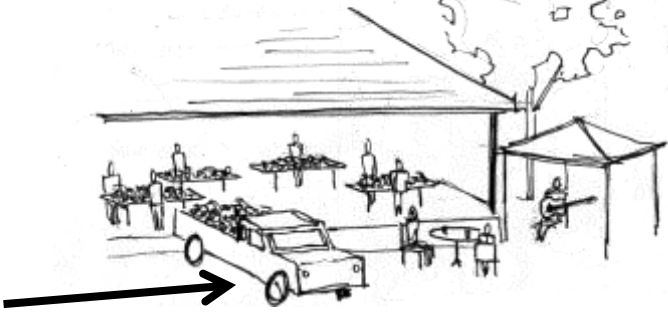
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Park in front of vendor booth:

- Very Easily accessible

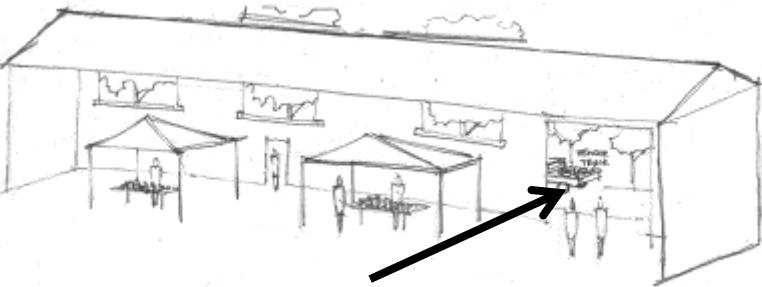
Rank: ____



Park on the street adjacent to Market:

- Least accessible

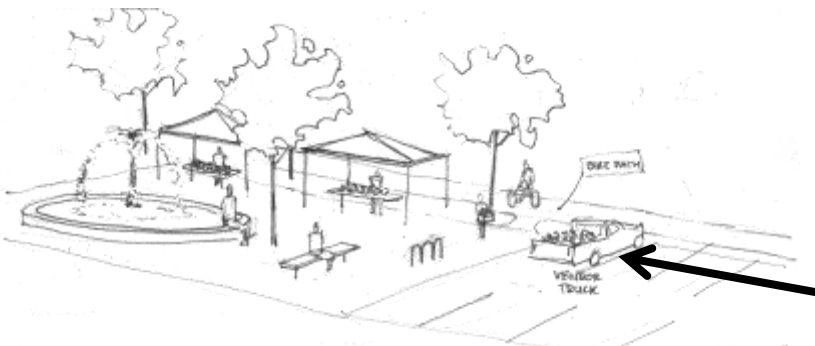
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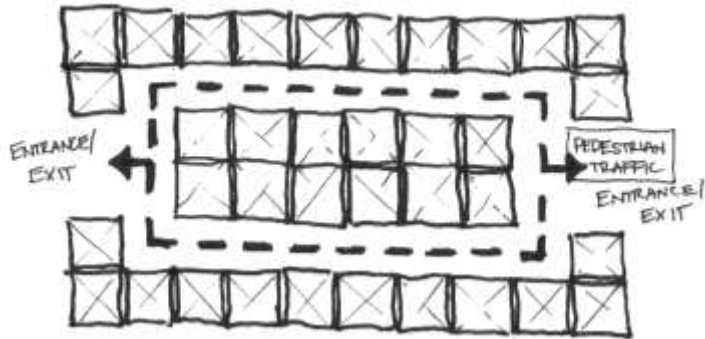
Park in adjacent parking lot:

- Moderately accessible

Rank: ____



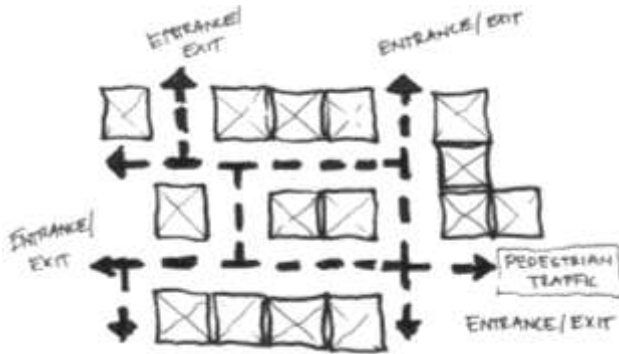
6.) As a vendor, what type of booth arrangement and pedestrian circulation would be ideal for you in a Farmer's Market Space? Rank 1-4, 1 being the most favorable arrangement.



Semi Controlled Circulation:

- Two Entrances/Exits

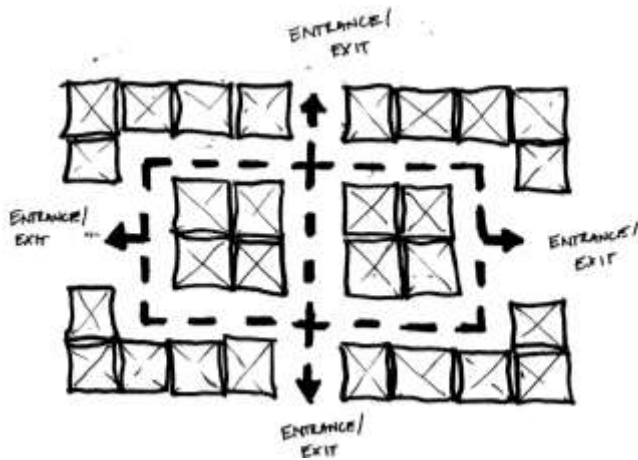
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Random, No Control of Circulation:

- No Defined Entrances/Exits

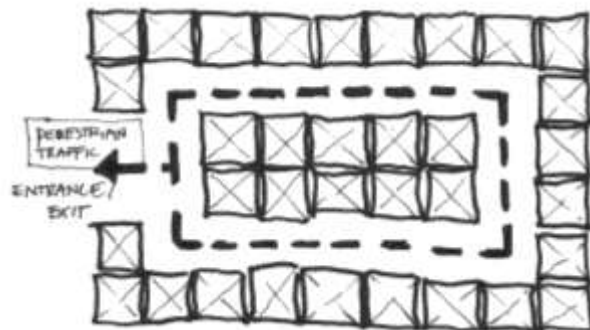
Rank: ____



Little Controlled Circulation:

- A few defined Entrances/Exits

Rank: ____



Very Controlled Circulation:

- A few defined Entrances/Exits

Rank: ____

6a) *Are there any additional arrangements and pedestrian circulations you would prefer?*

7.) *If there was a designed space that openly welcomed multiple market vendors, would you be willing to participate? Yes or No. You can explain why or why not if desired.*

Marketing Strategies

8.) *Which of the following types of marketing do you think would help to increase farmer's market attendance? Rank 1-4/5, 1 being the most beneficial.*

- Website
- Flyers
- Word of mouth
- Signage
- Other: _____