PROPOSAL: COMMUNITY GARDENS IN CEDAR RAPIDS, IA

Addressing Food Insecurity through Targeted Local Food Production

APRIL 21, 2017
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Summary

Community garden space and other forms of edible landscaping are consistent with Cedar Rapids’ (and more broadly, Linn County’s) emphasis and commitment to environmental stewardship, and healthy and connected communities. This proposal—the audience of which ranges from city government officials, public health practitioners, school district employees, non-profits, and community members—organizes current supportive research, points of collaboration, and overlap with existing Public Health goals as rationale for how and why community gardens can positively impact Cedar Rapids. Moreover, this proposal includes discussion on location, maintenance, and long-term sustainability as evidence for feasibility. There is a pressing need to unify the many organizations and individuals involved with community gardens and urban farming in Cedar Rapids. Work to bring together and enhance communication between the community garden and urban farming efforts in Cedar Rapids is of high priority moving forward.

BACKGROUND

Approximately 69% of Linn County adults are overweight or obese.\(^4\) Associated with unhealthy weight are a host of chronic comorbidities including, but not limited to, cardiovascular disease, diabetes, and hypertension that pose significant, long-term health risks to those afflicted.\(^{B,C}\) While physical activity plays an important role, diet is one of the strongest predictors of weight status,\(^{D,E}\) and food environment heavily impacts the public’s ability to acquire healthy foods. Increased distance to healthy food is compounded by lack of proper nutrition education and poverty.

Thanks to the strong groundwork laid by Linn County Public Health (LCPH), the Robert Wood Johnson Foundation Roadmaps to Health Action Award team, and Plan4Health funding from the American Planning Association, LCPH has a solid understanding of the food security needs of the City of Cedar Rapids. Areas of concern, with overlapping food access barriers and underserved populations, are the Westdale and Oakhill Jackson neighborhoods (see Tools and Resources). Despite the food security issues facing these communities, Cedar Rapids is emerging as an environmentally progressive city that prioritizes the health and wellbeing of its citizens; revitalization of greenspace, construction of protected bike lanes,

and emphasis on watershed management are all activities in evidence of the growing consideration for environmental stewardship. Themes of Sustainability, Health, and Placemaking are replete throughout the City’s Comprehensive Plan (Envision CR), the Spring 2016 State of Affairs: The City of Cedar Rapids Pursuit of Sustainability, and the work of iGreenCR and The Blue Zones Project®. There are real opportunities to address the food security needs of these neighborhoods and adhere to the values of stewardship and environmental sustainability that Cedar Rapids holds. Supporting a resilient, local food system that empowers communities to exercise agency over their own food security fully aligns with the tone already set by these abundant City and County initiatives and sets an example for the state as a whole.

RATIONALE AND EVIDENCE

The public health benefits of community gardens to individuals, communities, and municipalities are numerous. From increased food security to improved neighborhood aesthetic, community gardens have the potential to improve many facets of community wellbeing.

ENVIRONMENT:

Community gardens reduce the number of food miles traveled and overall carbon footprint of those consuming the produce. On average, food in the United States travels 1300 miles from “farm to fork”; cultivating food locally drastically reduces the greenhouse gas emissions related to food transportation, as well as food lost to spoilage in transit. Further, community gardens have been found to reduce soil erosion and runoff—a noteworthy point for flood prone Cedar Rapids—all while filtering rainwater through garden root systems. Finally, planters placed over parking lots or other concrete or impervious surfaces can reduce stormwater runoff while also combating urban heat island effects.

FOOD SECURITY:

It is well understood that people most in-need of healthy foods and fresh produce are also most paradoxically unable to purchase them—of the multitude of barriers, poverty and food environment are most salient in Cedar Rapids. Coping strategies in low-income areas, especially in households with children and headed by single women, include purchasing and consuming cheap, high calorie-energy dense foods that are nutritionally lacking. These foods promote weight gain and are more prevalent in low-income neighborhoods compared to healthier food options. Community gardens can provide access to fresh produce and nutritionally rich foods in low-income neighborhoods to combat this disparity, and therefore have high utility in areas of low food access.
and food deserts. What’s more, gardeners save significant amounts of money on produce; one project estimated that community gardeners saved between $75 and $380 in food costs every season.  

**Weight Status and Mental Health:**
People who garden (or live with someone who gardens) tend to eat more fruits and vegetables on a daily basis. Eating more vegetables, in tandem with regular gardening activity, results in overall health; it’s been shown that gardeners have significantly lower BMIs and lower odds of being overweight or obese compared to those who do not garden. In addition, multiple studies examining biophilic design (the practice of incorporating natural elements into urban environments) have shown that green space and community gardens provide a variety of mental health benefits including reduced stress, increased productivity, lowered blood pressure, and increased satisfaction and quality of life. The effect of gardens and green space on children cannot be underestimated; longitudinal studies of low-income, urban children have shown that living in neighborhoods with gardens and greenspace (as opposed to just concrete and vacant lots) increased attention, decreased ADHD symptoms and other hyperactivity, reduced absenteeism and truancy, and increased cognitive functioning. Exposure to gardens and green space reduces stress and increases a sense of wellness and belonging.

**Community Relations, and the Urban Environment:**
Community gardens can increase communication and cooperation with neighbors. This strengthened sense of community improves social networking, perceptions of safety, and has been shown to reduce crime rates. Furthermore, community gardens increase property values in the immediate vicinity where they are located, as well as increase satisfying quality of life and mood. With more community gardens comes increased neighborhood aesthetic which can positively impact individuals’ understanding and appreciation of environment, environmental services, and increases one’s willingness to take advantage of the outdoors. Furthermore, gardens can foster “neighborhood attachment,” an emotional bond to neighborhoods that has been shown to increase access to, and use of, neighborhood space. This attachment can promote individual involvement in the community that manifests in increased involvement with formal and informal community and neighborhood activities. Finally, developing and maintaining garden space can be less expensive than parkland area, in part because gardens require little lawn maintenance and 80% of their cost is in labor.

The presence of community gardens heralds healthy communities.
OVERLAP WITH EXISTING GOALS

Community gardens are inherently multidisciplinary, resulting in a plethora of benefits for a host of sectors and work plans. In addition to reversing the negative trend the 2014 Linn County Food System Assessment regarding multiple indicators on Health and Wellbeing and Social and Cultural Health, community gardens directly apply to the activity Advance Urban Gardening under Strategy 3-1.4: Increase Availability of Affordable Healthy Foods in the 2016-2018 Linn County CHIP Health Promotion Action Plan, the objective to assess promotion and implementation of urban agriculture in the Cedar Rapids Wellbeing Advisory Committee’s 2017 work plan, as well as the Food Environment Alliance’s mission to improve creative methods for food access. Community gardens work to further the Linn County Food Systems Council’s 2017 Work Plan, the overarching goal of which is to ensure access to healthy foods and support the elimination of food insecurity. Community gardens address the ongoing work to further the Food Council's Work Plan on the following goals:

B.1: Work with appropriate entities to eliminate food deserts, which are areas with little or no access to healthy food, including projects such as Double-up Bucks Program

B.3: Encourage community gardens on underutilized land and full utilization of farmers markets etc.

Furthermore, based on many components of the rationale provided above, community gardens directly and indirectly addresses the national Healthy People\footnote{Healthy People provides evidence-based, 10-year national objectives for improving the health of all Americans in order to encourage collaborations across communities and sectors, empower individuals to make informed health decisions, and to measure the impact of preventative health behaviors.} 2020 goals:

NUTRITION AND WEIGHT STATUS:

WEIGHT STATUS:

- Increase the proportion of adults who are at a healthy weight
- Reduce the proportion of adults who are obese
- Reduce the proportion of children and adolescents who are considered obese
- (Developmental) Prevent inappropriate weight gain in youth and adults
**FOOD INSECURITY:**

**NSW-12**  
- Eliminate very low food security among children

**NSW-13**  
- Reduce household food insecurity and in doing so reduce hunger

**FOOD AND NUTRIENT CONSUMPTION:**

**NSW-15**  
- Increase the variety and contribution of vegetable to the diets of the population aged 2 years and older

While the most obvious connection between The Healthy People 2020 goals have to do with Nutrition and Weight Status, there are also positive direct and indirect implications for Mental Health Status, Injury and Violence Prevention, and Physical Activity goals. Finally, the Healthy Iowans 2012-2016 Health Improvement Plan—the most recent iteration of strategies and resources to promote and protect the health of Iowans—cites obesity, nutrition, and physical activity among the main health issues facing Iowans. Healthy eating, food access, and food security are among the top strategies to combat these health issues.

**DISCUSSION ON GARDEN TYPES:**

The picture to the left maps community, school, and corporate gardens in the Cedar Rapids area that are run by the City (lime green), Feed Iowa First (light blue), Iowa State Extension Master Gardeners (dark blue), and Matthew 25 and others (maroon). It is unclear if this represents an exhaustive list due to the multitude of organizations and individuals involved with local food production. Addresses have not been published here for security reasons. How food gets distributed from these garden locations and to whom has not been investigated for the purposes of this document.

Garden plots for individual rental (like those at Ellis Park, Squaw Creek, and Tuma Park in Cedar Rapids and Marion) are generally referred to as “allotment” gardens. These garden spaces are first come first serve; because rental is non-refundable, and because renters have the ability to renew plots, the City Parks and Recreation department does not provide a waiting list for those who miss the opportunity to rent available space. Despite the fact that these gardens—especially Tuma Park and Squaw Creek—are fairly inaccessible from downtown Cedar Rapids (requiring a drive of upwards of 20 minutes, one way), and that Ellis Park has no water access, the garden space at these three parks were entirely rented out (upwards of 300 plots) during the 2016 growing season. As of March 2017, only limited space at Ellis Park is left for the 2017 season. There is a consistent demand for accessible garden space in Cedar Rapids. Benefits to allotment gardens include independent ownership where maintenance of individual...
plots is the responsibility of the renter. However, allotment gardens require more overall management; keeping track of money (if the space is being rented for a fee), upkeep of common areas, etc..

Gardens in which community members care for the entire garden together are called “communal” or “neighborhood” gardens. A communal garden is excellent for encouraging an atmosphere of shared responsibility, engagement, and cooperation. It is of paramount importance that responsibility is shared; situations can arise where some community gardeners become much more involved than others, do most of the work, and become burned out.

Corporate gardens/farms are those partnered with large, local corporate employers. One of the most successful models of corporate partnerships have been through Feed Iowa First. Feed Iowa First has capitalized on the abundant and unused acres surrounding corporations in Linn County. These farms do not only directly benefit the communities they feed, but also the employees; volunteer programs engage employees, and are easily incorporated into corporate wellness strategies. During its first year, the farm at Rockwell Collins supplied 4,600 pounds of produce—enough for thousands of meals. So far, Feed Iowa First has farms at PMX Industries, ADM, Cargill Milhiser Smith, Rockwell Collins, and Strategic Print Solutions.

Logistically, space may be the deciding factor for garden type. An organization or host location can engage more individuals each season through a communal or corporate garden than an allotment garden. In either case, one of the first tasks in establishing a community garden is to create a set of garden rules to create a shared understanding of garden expectations (and the responsibility of the maintaining organization, if applicable). For the purposes of this proposal, and because there are tradeoffs to each, either an allotment or communal garden type could be considered for the locations highlighted in the next section. Discussion regarding the ultimate goals of the garden (food production vs. community engagement/education) will aid in this decision. For example, in the Westdale trailer parks, an allotment style garden could boost appeal to park management (as a source of revenue), and would have an overseeing management body. However, in school and church settings communal gardens may be better suited to the needs and mission of both the community and the hosting location respectively.

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Rockwell Collins, Corporate Responsibility CEO Message.
POSSIBLE LOCATIONS
There are several points to consider when planning for any community space, but special attention should be paid to the specific needs of a garden. The following list of ideal qualities was constructed with input from Master Gardeners, school garden coordinators, urban farmers, and city and county employees. *This list is not in order of importance*, though there are some specific items that are of vital importance to the health of a garden (marked in green). Because many of the items on the list can be remedied if absent (at varying cost and ease), the listed qualities should be considered ideal for a lot to already possess.

<table>
<thead>
<tr>
<th>Ideal Space Checklist</th>
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<tr>
<td>Overlap of food insecurity, available lots</td>
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<tr>
<td>Onsite water access</td>
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<tr>
<td>Adequate sun exposure</td>
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<td>Soil health considerations (slope, drainage, soil type)</td>
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<td>Ongoing maintenance</td>
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<td>Onsite storage for tools</td>
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<td>Accessibility, visibility</td>
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For the purposes of this proposal, the search for land has been limited to tax-exempt lots in Cedar Rapids. The below proposed lots are only a few of those identified as potential garden space (see [Tools and Resources](#) for complete list). Lots identified with ArcGIS Online were cross-referenced with the LCPH food insecurity map and manually input into a separate Google Map. Finally, site visits were conducted to ensure no major disparities between aerial photos and reality exist. Space that meets most of these qualities are listed below in order of greatest to partial fulfillment.\(^H\) Golden stars pinpoint potential garden locations.

\(^H\) Many of the considerations regarding soil health and access to water will be similar or the same for many of the listed lots. Soil testing for in-ground gardens (for both toxins and nutrient deficiencies) is encouraged.
OAK HILL JACKSON NEIGHBORHOOD:

✓ Need: According to work done by Linn County Public Health, the Robert Wood Johnson Foundation Roadmaps to Health Action Award team, and Plan4Health funding from the American Planning Association, Oak Hill Jackson has been identified as one of the two most food insecure neighborhoods in Cedar Rapids. Because most of the tax-exempt lots in this neighborhood are concrete, city lots, or somewhat inaccessible, potential garden space is limited. The following is a selection of the lots deemed eligible.

1212 7TH ST SE – METRO HIGH SCHOOL

Metro High would be an excellent choice for a highly visible communal garden location that holds the potential of enhancing student (72% of whom qualify for free and reduced price lunch) engagement in their community. Currently Metro High has a school garden, but there is an opportunity to both expand the existing infrastructure and to involve the community during the summer months.

✓ Water: Water access onsite. Given the large surface area of the roof, rain barrels could provide a convenient source of water during the summer months.

✓ Sun exposure: Abundant exposure.

Soil Health: Soil around the Metro High area seems to be very compacted—soil remediation may need to be considered (supplement existing soil with compost). Soil health concerns can be avoided by filling raised beds with nutrient rich soil and compost (as is already the case). However, an in-ground garden could also be added near the city lot north of Bender Pool; this location would have to identify an alternative source of water. Soil testing of this secondary area is highly encouraged.

✓ Maintenance: Plans to open the school garden up to the community could easily be developed into a high school project—with the help of Master Gardeners, students could organize community outreach and engagement strategies, garden rules, install rain barrels, and run garden work days in preparation for the summer season.

Storage: Onsite access for students, teachers, and grounds keepers. An option for community members would need to be considered.

1 Based on combination of factors: percent of household food stamps, poverty, distribution of SNAP eligible locations, walking distance from SNAP locations.

✓ Accessibility and visibility: This is a highly visible location at Metro High School. In either location, the garden is very near several bus stops and imbedded in a residential neighborhood. Further, Metro High can market their community garden as a school-wide effort to reduce food insecurity in their neighborhood.

Next steps: approach Metro High to see if they are willing to become a further resource for their community. Involve students.

1019 7th St SE – COUNTY LOT, LINN COUNTY PUBLIC HEALTH AND CHILD AND YOUTH DEVELOPMENT
A community garden at the future site of the Linn County Public Health building makes inherent sense. The surrounding neighborhood is food insecure, and will lose a great deal of green space with the construction of the new county building.

✓ Water: There will be access to water on this lot. Construction of a new building creates opportunity for including sophisticated rain capture system that can reduce garden maintenance costs overtime. It is highly recommended that these options are considered for this location.

Sun exposure: Special consideration should be made to ensure the garden is placed where the building does not cast a shadow for the majority of the day.

Soil Health: Soil health concerns can be avoided entirely by filling raised beds with nutrient rich soil and compost. A communal garden type that fits into the architectural theme of the new building may be best for this particular location.

✓ Maintenance: Ideally, LCPH staff or Master Gardeners would oversee a long-term maintenance plan; recruitment of volunteers or community members with the goal of obtaining self-sufficiency. Programatically, this would be an excellent opportunity for community outreach on behalf of LCPH which could include community gardening workshops and nutrition education opportunities.

Storage: A community option for storage may need to be considered.

✓ Accessibility and visibility: This location is centrally located in a residential neighborhood, near downtown, and across the street from a bus stop. Highly visible and accessible. Furthermore, it is across the street from an existing Feed Iowa First garden plot.
Next Steps: Determine LCPH’s openness to consider a garden space (decide on garden type and any needed infrastructure), and consider sun exposure needs.

1230 5th St SE – St. Wenceslaus Church

This location would be an optimal location for either an allotment garden or a communal garden. Partnering with a religious institution could be fruitful, producing strong community involvement. In-ground garden beds are highly suited to this location given the space available.

Water: Because the location on church property is across the street from St. Wenceslaus itself, water access is slightly hindered, though not impossible. Watering strategies must be thought through at this location. Manually transporting water from the building or rain barrels are a possibility.

✓ Sun exposure: St. Wenceslaus has abundant sun exposure over a large surface area.

Soil Health: Soil health concerns can be avoided entirely by hauling in nutrient rich soil and compost. However, this location may be particularly suited for an in-ground garden given the space available (see page 3). Depending on parking needs, planters on the parking lot asphalt may be an option for a planter garden (see page 7). There are not any specific soil concerns in this location (storm water runoff from the Geonetric parking lot should not pose an issue given existing, natural drainage), though soil testing for an in-ground garden is always encouraged. The areas is otherwise very flat.

Maintenance: A church partnership could foster the community enthusiasm a community garden needs for long-term success. However, it may not be the best source of maintenance structure. Neighborhood associations and other organizations (Master Gardeners, Feed Iowa First) may be the best source of initial organization.

Storage: Access to onsite storage would need to be considered for the community.

✓ Accessibility and visibility: This location is centrally located in the Oak Hill Jackson neighborhood, in the NewBo District, not far from Metro High School, and neighbors the Geonetric building. Future plans to improve bikeability in the area would only enhance existing accessibility.
Next Steps: Approaching the church, assessing local interest. Determine cost, infrastructure, and maintenance plans.

826 6th St SE – Mercy Medical Center

A block away from the LCPH location. While a somewhat unconventional place for a garden, this location would not require any removal of pavement (see picture on page 7), but would require negotiation for use. Mercy is a natural partner; the health implications of local food production significantly overlap with their mission to enhance the health of the communities they serve.

Water: There isn’t immediate access to water on this lot. However, rain barrels or other rain water collection system should be considered.

✓ Sun exposure: Much of the lot is out of the reach of the shadows that the trees in the right of way will cast at any time of day.

Soil Health: In this particular location containers or planters would need to be used if any pavement is available for use in lieu of raised bed or an in-ground garden. See picture on page 7.

Maintenance: Unless Mercy wants to be a part of long-term maintenance plans, this space would rely heavily on community involvement and engagement. Neighborhood associations and other organizations (non-profits, Master Gardeners) could be approached to spearhead initial community involvement.

Storage: Initially unavailable, but could be constructed.

✓ Accessibility and visibility: This location is centrally located in the Oak Hill Jackson neighborhood, near downtown, easy transportation, and near the future home of LCPH (partnering opportunities).

Notes: This site poses higher upfront costs (unless materials or infrastructure could be donated), and a need to negotiate use of space from Mercy Medical Center (only the greenspace is tax-exempt, not the pavement—both are owned by Mercy). However, the visibility at this location would be very high, promoting awareness of urban gardening and food insecurity issues. Further, its unconventional location would provide the opportunity to showcase alternative gardening strategies. Finally, Mercy Medical Center could prove to be a valuable partner in this endeavor depending on the plans for the space.
Next Steps: Approaching Mercy, determine their involvement. Estimate costs, determine funding and long-term maintenance plans.

**WESTDALE:**

✓ **Need:** According to work done by Linn County Public Health, the Robert Wood Johnson Foundation Roadmaps to Health Action Award team, and Plan4Health funding from the American Planning Association, Wesdale has been identified as one of the two more food insecure neighborhoods in Cedar Rapids. Because of the area the neighborhood is much larger than the Oak Hill Jackson neighborhood, there are many more lots to filter (see [Tools and Resources](#) for full list—including city lots). For the sake of brevity only a fraction have been selected.

**NOTE ON MOBILE HOME PARKS:** Wesdale has a high concentration of mobile homes that may be specifically in-need of additional food support; community gardens would therefore greatly benefit these neighborhoods. Unfortunately, there is a paucity of appropriate tax-exempt lots (city-owned or otherwise) within any accessible distance from these mobile home parks. Park administrators should be approached about their willingness to oversee a garden, and setting aside vacant space. Planters or raised beds would be most appropriate for these settings. Some examples are shown below:

![Example 1](image1)

**SUMMIT VIEW VILLAGE**

![Example 2](image2)

**CEDAR TERRACE**

Water and storage of tools would need to be discussed, but, with proper community engagement, these neighborhoods could sustain one or several small gardens.

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K Based on combination of factors: percent of household food stamps, poverty, distribution of SNAP eligible locations, walking distance from SNAP locations.
**4141 JOHNSON AVE NW – HOOVER ELEMENTARY SCHOOL**

Hoover Elementary has the second highest percentage of students who qualify for free and reduced lunch in Westdale at 69% (second to Van Buren at 70%). Hoover has adequate green space for a community garden, and is one of the few schools in the city without a garden.

✔ Water: Water access is onsite. As always, rain barrels should be considered for reduced maintenance costs and to provide a convenient water access during summer months.

✔ Sun exposure: Abundant exposure.

Soil Health: There is no indication that soil in this location would be in anyway unsafe. However, placement of a garden should be out of the way of storm water trajectory exiting gutters.

✔ Maintenance: Hoover Elementary would be an ideal location for direct partnership with Master Gardeners or a non-profit with school garden administration experience (for example, Matthew 25). Engaging the surrounding community and parents of students would ensure that the garden, during its peak production months, would be cared for during the summer. Furthermore, there may be opportunity for summer educational programming in partnership with the Boys and Girls Club that meets at Hoover.

Storage: Onsite. However, community access will have to be considered.

✔ Accessibility and visibility: Hoover is imbedded within a residential neighborhood and is accessible by two bus stops. Summer access and garden care would be made easy given the abundant parking space.

Next steps: Approach Hoover and potential partner organizations with school garden experience (Master Gardeners, Matthew 25, etc.). Sort through logistics.

Notes: Van Buren is also a strong option for a community garden—though it already has a school garden (installed in 2016). However, school gardens can easily bleed into community gardens, especially since most of the growth and harvest take place during the summer season. Van Buren has extensive greenspace, an accessible location, water access, and great sun exposure. Considerations to expand on existing infrastructure, similar to what was suggested for Metro High (page 8) should be made.
Surrounded on all sides by residential homes, Coolidge Elementary would be a strong garden partner. The elementary school is highly accessible via walking and by bus, and borders a city lot (south side) which lies along Crestridge Ave SW.

Water: Access onsite. As always, considerations for sustainable rain and storm water capture systems should be considered.

Sun exposure: Abundant.

Soil Health: There are no particular soil health concerns for this particular location. Like at Hoover, storm water runoff should be analyzed to aid in placement of raised beds (to prevent infrastructure or other landscaping [ex. wood chips] from washing away.

Maintenance: Gardens located at schools have proven to be strong partnerships in which student education is incorporated with garden maintenance. Over the summer months, partnerships with Master Gardeners or other local non-profits can rally community support for ongoing, off-school-season maintenance.

Storage: Onsite, though community access during school off-season must be considered.

Accessibility and visibility: Being centralized in a residential area would give easy access to garden space by community members. Being near several bus stops provides access to individuals outside walking distance.

Next steps: Like many of the other schools appropriate for a school and community garden, the school and several appropriate partner organizations should be approached to gauge receptivity. Design, funding, and general logistics should be discussed.
5338 Johnson Ave SW – Cedar Rapids Baptist Church
A second location option for Westdale’s more eastern residents.

- **Water:** Water access onsite. Given the surface areas of the roof and parking lot, this would also be an excellent opportunity for rain barrel and other rain capture system installation.

- **Sun exposure:** Despite the shadow cast in this aerial photo, Cedar Rapids Baptist Church has plenty of open, sunny space for a garden.

- **Soil Health:** Topography must be considered in this location to prevent in-ground gardens from being washed away. Raised beds can be cut into hilly areas and may be well suited for uneven areas.

- **Maintenance:** As mentioned before, a church partnership is highly suited for fostering community enthusiasm required for a community garden needs for long-term success. However, it may not be the best source of maintenance structure. Neighborhood associations and other organizations (Master Gardeners, Feed Iowa First) may be the best source of initial organization.

- **Storage:** Onsite, though a community option or access must be discussed.

- **Accessibility and visibility:** Surrounded on three sides by residential neighborhoods and three bus stops, a garden at this location would be highly visible and accessible.

**Next steps:** Approach church, scout location’s topography, assess local interest. Develop budget, plan infrastructure, and maintenance plans.
2999 1st Ave SW – Islamic Center of Cedar Rapids
3113 1st Ave SW – First Church of the Nazarene

The strengths of partnering with religious institutions have been listed above. The Islamic Center could provide opportunities for interfaith cooperation and cultural exchange in addition to relieving food insecurity.

Water: In either location, water should be available. The Church of the Nazarene owns the southern greenspace lot and structure which would provide water access (would need to be investigated). However, there is green space behind the parking lot would also be appropriate for a garden space.

Sun exposure: In either marked locations, there appears to be adequate sun exposure; the garden can easily be set back a distance to avoid shadows cast by buildings or trees.

Soil Health: Soil health concerns can be avoided entirely by filling raised beds with nutrient rich soil and compost. Depending on the space, an in-ground bed would work well at this location as well.

Maintenance: Partnerships with religious institutions are highly suited for engaging community investment in a community garden. However, as echoed above, these institutions may not be the best source of maintenance structure. Neighborhood associations and other organizations (non-profits, Master Gardeners) may be the best sources of ongoing maintenance.

Storage: Onsite.
Accessibility and visibility: The Islamic Center location is highly visible and on a bus route. The Frist Church of the Nazarene is just down the street, and depending on where the garden is placed at that location, it could be very to moderately visible.

Next steps: Approach institutions, develop budget and discuss garden types best suited for respective locations. Gather community interest.

DISCUSSION ON MAINTENANCE AND COMMUNITY ENGAGEMENT STRATEGIES:

Regardless of the location, there is a clear need for a long-term maintenance considerations. Ideally, the bulk of the maintenance needs will be carried out by the community in which the garden is nested (with perhaps some oversight from a non-profit or other community-based entity). Therefore, community engagement and enthusiasm is a key component in reaping the full benefits of a community garden.

MASTER GARDENERS
The Iowa State University Extension Master Gardeners are an obvious choice for a knowledgeable, community-focused group that may be interested in the installation of more community gardens in the City, and are very active in all of Linn County. Even if for a short time, their participation (that adheres to their mission) can include engaging and educating community members, and building resident’s and neighborhood association’s capacity to care for the garden. Master Gardeners could be the bridge between community organizations or neighborhood association and knowledge of how to properly care for a productive vegetable garden, and provide the foundational know-how and house-keeping (garden rules, discussion of needed resources, etc.).

Community engagement can be achieved in the above described way, but local organizations, food pantries, and non-profits may also be involved in community events that concern the garden (picnics and potlucks, garden parties, harvest days, tours, educational events, etc.).

It is important that the community take ownership of the garden; the role of the Master Gardeners should be as facilitators and educators. Activities may include running the garden build/space preparation, helping develop community garden rules, occasional lessons/seminars, and perhaps checking in every once in a while. The bulk of labor should be done by community members.

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Feed Iowa First

Since 2011, Feed Iowa First has been dedicated to confronting food insecurity in Iowa and is truly a local asset. Pioneering a successful model for local food production in Linn County, a partnership with Feed Iowa First would be the fastest, most cost effective method of producing the greatest quantity of food for Cedar Rapids. Feed Iowa First currently oversees or partners with 31 farms (ranging in size from 100 square feet to 1000 acres), situated on vacant space in communities (churches, schools, etc.) and in partnership with local corporate employers (corporate farms). Partnerships could easily sprout in food insecure neighborhoods through organizations with small quantities of land or individuals to champion the effort.

Interested partners and individuals approach Feed Iowa First to participate. The proposed site is assessed for soil health, pest pressure, and volunteer-base size. Nearly all farms partnered with Feed Iowa First, regardless of size, are in-ground. Soil tests are conducted for each site, and sites are selected regardless of water access. Farm size is ultimately dictated by volunteer base—the time commitment is generally an hour a week. Plants and required infrastructure (e.g. Trellises) are provided by Feed Iowa First. To increase efficiency, overall food production, and to reduce vandalism, Feed Iowa First generally only plants one crop (i.e. Radishes at one site, cucumbers at another), or a family of crops (i.e. Brassicas or alliums) per farm. Volunteers at the farms (excluding corporate farms) are encouraged to harvest for their own needs. Produce is then donated for distribution within the community.

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e: feediowa1st@gmail.com p: (319) 295-5818

A NOTE ON SECURITY:
Regrettably, vandalism and theft is an unfortunate reality of a community garden or urban farm. However, increased community investment and ownership can significantly cut down on damage sustained. Cultivating enthusiastic community support for—and participation in—a community garden is therefore quite important to both success and protection of this neighborhood investment.

DISCUSSION ON SOIL HEALTH:
Soil health is often dictated by prior land use and whether or not the space is located in the flood plain. In the locations suggested in this proposal, land use has been consistent for long periods of time (churches, schools, etc.). However, where there is concern for the safety of soil (generally for in-ground garden beds), or for soil nutrient deficiencies, testing can be done through the State Hygienic Lab, or more locally, at Coe College. See following section for further, brief discussion on material safety.
FUNDING AND COST:

Community garden costs can range wildly. Some up-front cost estimates can be as little as $200, more moderate estimates at $1500, while still others can be as high as $4000. Site costs truly depend on community expectations and the resources available to the lot (many of those listed on the Ideal Checklist on page 7). Therefore, budgeting is fairly site specific: installing a water and metering system, instead of developing a garden on a lot with existing water access, can cost thousands of dollars, quickly depleting a community garden budget; planting an in-ground bed, while saving costs on raised bed materials, may add costs through soil testing and remediation. It should be noted that the return on garden investment can be considerable. The National Garden Association has found that, an experienced gardener can turn a $70 garden investment into a $600 yield in produce for the year.¹

Reusing and recycling materials, as well as soliciting donations, both monetary and in-kind, can significantly reduce the upfront costs of garden installation. Tool libraries (such as the one located at Matthew 25) can eliminate the large upfront costs of limited-use items (tillers, wheel barrows, power drills and saws, etc.). Tools used regularly can be a relatively inexpensive one-time purchase, or sourced from the community in which they will be used (shovels, rakes, etc.). **Note on material safety:** *Raised beds and planter gardens made from recycled and reused materials should be carefully assessed for safety—some materials are not suitable for garden use. Commonly mistaken repurposed materials for gardens include railroad ties, certain plastic materials, and treated woods (plywood, pressboard, pressure treated wood, or painted woods). Using certain materials may require a lining, an additional cost. Untreated cedar boards are considered very safe, durable, and therefore appropriate for a community garden.*

The bulk of the cost of a community garden are initial preparation of the land and ongoing water use. Water, depending on factors such as weather and billing rate, is generally slated at approximately $100/year. Simple raised beds can cost anywhere from $26-$50/bed depending on sizing and materials. Soil costs per bed will, again, depend on bed size and where the soil is purchased/sourced. ([Soil calculators](#) can help estimate soil needed, which can inform costs.) There are also long-term fees (plants, seeds). However, labor should ideally be free and driven by community interest. Depending on the space available, the soil testing needs, and preference, the garden will require funds for purchasing seeds, trellises, soil, etc., and constructing raised beds and compost bins. The following are grants that are applicable to a community garden:

- **Hy-Vee One Step Produce Garden Grants**
- Master Gardeners—Master Gardeners can write grants on behalf of a community gardens
- Non-Profit Eligible
  - USDA – Community Food Projects (CFP) Competitive Grants Program
  - Greater Cedar Rapids Community Foundation
  - Rockwell Collins Green Communities

¹ ‘Recession Gardens’ Trim Grocery Bills, Teach Lessons (CNN)
Other options include approaching individual businesses and community employers to sponsoring a raised bed, rain barrel, or other seasonal or permanent items.

**COMMUNITY FUNDING SUCCESSES**

The Wellington Heights community garden relied heavily on grants from both Rockwell and Hy-Vee, neighborhood donations, and in-kind donations during its 2015 move. Costs were limited to soil and hardware. With money raised and donations collected, the garden costs were limited to just over $500. To cover ongoing water costs, the Neighborhood Association worked out a deal with the Affordable Housing Network. In exchanged for $100/year, the garden uses water from a neighboring rental unit.

**Wellington Heights Community Garden Contact Information:**
Justin Wasson – Neighborhood Association President
e: JRWasson@live.com p: (319) 431-8773

**TIME COMMITMENTS**

Time commitments depend on the garden type (communal or allotment), its size, and the number of individuals engaged in garden maintenance. Once the garden is planted, it only requires a few hours a week at most to maintain. A garden coordinator (should they be responsible for working around larger, structural issues [water availability, off-site tool storage, soil remediation] could expect around 20 hours a month.)

**OTHER OPPORTUNITIES:**

**FRUIT TREES – DIRECT COMMUNITY PARTNERSHIP**

Without identifying a consistent funding stream or enthusiastic and devoted volunteers, planting fruit trees and edible shrubs pose significant barriers (maintenance/cost). However, there may be an opportunity to partner directly with communities and promote agency to address food insecurity in their own neighborhoods.

Under Iowa law, utility companies must spend money on energy efficiency programs for their customers (See Code of Iowa, Chapter 476.6.15). Many of these energy efficiency activities have been tree giveaways and plantings (for shade, windbreaks, etc.). Some fruit trees have been given away under this law. In possible partnership with Safe Routes to School, Trees Forever Fruit TreeKeepers, Alliant Energy, and community residents, an incentive program could be constructed around edible landscaping for children walking to school. Trees could be available upon the following contingencies:

- Take a tree care class (offered through Trees Forever Fruit TreeKeepers)
- Be willing to care for the long-term development and care of the fruit trees
- Marking trees as available for children to harvest from to and from school
**FUNDING**

The Trees Forever Branching Out program is available wherever Alliant Energy is a utility provider. Alliant provides funding ranging from $1,000 to $10,000 for community-based tree planting projects (emphasizing a diversity of trees). Depending on the requirements of the grant, a certain percentage of trees may be allotted to fruit trees; a pilot may need to include an entire neighborhood, but prioritize fruit tree giveaway to residents along a Safe Route to School. Grant applications require a complete application, project plan, and proposal letter. Grants are awarded twice a year. **Deadlines June 1 and November 1.**

**NEXT STEPS:**
- Identify homes along safe routes to school to gauge interest (Marion).\(^N\)
- (Example pilot street: )
- Write grant

**IMPORTANT CONTACTS:**
- Todd Fagan, City Arborist
  - e: t.fagan@cedar-rapids.org
  - p: (319) 286-5616
- Laura Wagner, IDNR – Forestry Bureau (Operation ReLeaf program coordinator)
  - e: Laura.Wagner@dnr.iowa.gov
  - p: (515) 725-8456
- Patrick O’Malley – ISU Extension (fruit expert)
  - e: omall@iastate.edu
  - p: (319) 337-2145

**FRUIT TREES – SCHOOL AND PUBLIC AREA PARTNERSHIP**

Trees for Kids/Trees for Teens is a grant program designed to provide hands-on learning opportunities for youth on school grounds and other public areas. Funding, $1,000 - $5,000, can be used to purchase trees and mulch. Edible trees (serviceberry, apple, apricot, cherry, pear, and plum) are available. This grant program could supplement any of the school garden locations, scouted above.

**CONCLUSION AND RECOMMENDATIONS:**

The goal of this proposal is to support increases in local food production and the elimination of food insecurity by illustrating the overlap between in-need neighborhoods and space available for cultivation. However, community gardens (and urban farms) are not the only piece to the

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\(^N\)Though Cedar Rapids is the focus of this document, a great deal of work has been done on Marion’s Safe Routes to School; it is therefore used as potential location in this example.
food insecurity puzzle. This proposal merely uses community gardens as one strategy of many that the City, local organizations, and individuals can use to engage food insecure neighborhoods.

Work to bring together and enhance communication between the community garden and urban farming efforts in Cedar Rapids should be one of the first next steps moving forward. Ideally, this would take the form of a comprehensive list or map (more thorough than the one included in this document) of existing gardening/farming projects, indicating the type of garden (corporate, communal, allotment), the overseeing organization (The City of Cedar Rapids, Master Gardeners, Feed Iowa First, Matthew 25, Neighborhood Association, etc.), the contact person, and where and to whom the food is distributed.

Efforts to track down this information for this comprehensive list (over the four months this project took place) was made difficult by disappearing paper trails, inaccurate/out-of-date information, or (repeated) email and phone inquiries going unanswered. Dedicated efforts to try again, by a connected individual, are strongly encouraged.

**TOOLS AND RESOURCES:**

- Interactive Linn County Food Assistance Program and Food Insecurity Map
- ArcGIS Online – Mapping tool
  - Used to identify tax-exempt lots
- Extended Lot Options – Google Maps
  - An aerial view of Cedar Rapids neighborhoods indicating potential garden locations. Note: no feasibility analysis has been conducted on the overwhelming majority of included lots.
- Soil Calculator
- A Resource Guide to Cultivate the Linn County Local Food System – Winter 2010
- GM Reuse shipping crates to build community garden—Example of Locally Sourcing Materials for Urban Ag
- Seeding the City – Land Use Policies to Promote Urban Agriculture
- Integrating Urban Farms into the Social Landscape of Cities: Recommendations for Strengthening the Relationship Between Urban Farms and Local Communities
- Growing Urban Agriculture: Equitable Strategies and Policies for Improving Access to Healthy Food and Revitalizing Communities
- Establishing Land Use Protections for Community Gardens
  - Fact Sheet for Advocates

**ACKNOWLEDGEMENTS:**

This document was assembled with the help and guidance of many. A targeted approach to garden locations could not have been completed without the groundwork laid by Linn County Public Health, the Robert Wood Johnson Foundation Roadmaps to Health Action Award team, and Plan4Health funding from the American Planning Association. Thanks to the patient very Les Beck and Carolyn Siebrecht of Planning and Development for ArcGIS Online support. Gratitude to Stephanie Schrader of the City Manager’s office for finding a project that applies to my interests and to many work plan goals. Thank you to the constantly cheerful Rachel Schramm of Linn County Public Health for feedback and for fielding many unsolicited questions. Thank you (!!) to a very busy and Shelly O’Neal from ISU Extension for all the information on
Master Gardeners. Thanks to the Matthew 25 staff, specifically Eric Christianson (Urban Farm Production Manager) and Tess Romanski (Youth Education Coordinator) for feedback and advice. And finally, very special thanks to project preceptor, Kaitlin Emrich, for offering resources, feedback, positivity, and reassurance.

RESOURCES CITED:


PHOTO CREDIT:

All photos are hyperlinked with their associated web address.