

DOWNTOWN COMMUNITY GARDENS (DCG) GROUP RESPONSE TO
CITY OF MADISON STAFF STUDY ON
FEASIBILITY OF ROOFTOP COMMUNITY GARDENS
ON MADISON PUBLIC LIBRARY (GRFS/MPL)

SUBMITTED TO MADISON COMMON COUNCIL APRIL 19, 2011

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EXECUTIVE SUMMARY

One cannot help but question, in these times of severe budget constraints, a Feasibility Study that features, for example, a \$21,800 tool shed to protect a few garden tools and watering cans from the elements.

The Downtown Community Gardens Group recommends that the Common Council neither adopt nor accept the staff Feasibility Study on community gardens on the rooftop of the new public library (*Green Roof Feasibility Study/Madison Public Library, GRFS/MPL*).

We recommend non-acceptance of the GRFS/MPL report because

(1) Acceptance would reflect badly on Madison among sustainability/green communities nationally and internationally.

(2) The GRFS/MPL does not fulfill the Common Council directive of trying to Get to Yes.

(3) The GRFS/MPL does not, finally, answer the question of whether the idea of community gardens on the rooftop of the new central public library is feasible or not.

The GRFS/MPL consistently overestimates costs, adds extra or unnecessary costs, fails to justify or explain costs, and avoids itemizing estimates in such a way that would permit apples-to-apples analysis.

Rather than seeking creative and innovative ways to "get to yes," as directed by Common Council members, it finds creative and innovative ways of adding costs.

Working with the incomplete and mostly unitemized information presented in the GRFS/MPL, the Downtown Community Gardens (DCG) group estimates that the overall costs of a rooftop community garden on the Central Public Library might be reduced from the staff's projected \$775,344.96 to as little as \$296,000, or less. (Extensive green roof costs are listed as \$156,000, p. 7-1.)

In addition, DCG estimates that the annual maintenance costs might be reduced from staff's projected \$149,850 to as little as \$7,250.

The DCG Response to GRFS/MPL

1. HISTORICAL BACKGROUND OF THE FEASIBILITY STUDY RESOLUTION

On November 10, 2009, the Madison Common Council directed staff:

"In their evaluation, development, and design of the new Central Library, city staff is directed to study and consider the feasibility of including either a rooftop intensive community garden and/or a green roof."

In February of 2011, the Facilities & Sustainability Department released "Green Roof Feasibility Study, Madison Public Library," (GRFS/MPL) which recommends "not to pursue an intensive green roof (i.e., rooftop community garden) for the Madison Central Public Library remodel project." (p. 1-1). This Downtown Community Gardens group (DCG) report is a response to the GRFS/MPL text and appendices.

The Downtown Community Gardens group (DCG), formed in the spring of 2009, urged the Common Council to adopt the November 2009 resolution calling for the feasibility study, which was approved in a 19-1 voice vote. By that time, DCG had collected petition signatures supporting more community gardens downtown from every alder district in the city, with over 80% of those asked specifically supporting a community garden atop the new public library. DCG also has a list of well over 100 gardeners who would like a plot if we succeed in getting more community gardens established downtown.

2. CITY POLICY ON COMMUNITY GARDENS

City policy asserts: "It is important that all parts of the city that want [community] gardens, get [community] gardens."¹ Since 1999, the date of the report quoted here, it has been city policy to offer "strong government support" for community gardens.

The 1999 city report quoted above also makes clear that the Reynolds Community Garden was intended as a beginning, not a token.

The 2009 *Madison Sustainability Report* notes, in the "Healthy Food" category, the policy goal of including "space for personal food production in all neighborhoods, e.g., community gardens."²

3. CURRENT COMMUNITY GARDENS DOWNTOWN

The Reynolds Community Garden, on the 600 block of East Mifflin in downtown Madison, is a fine specimen of urban green space. Almost unbelievably compact and neat, it offers approximately two dozen small plots for urban gardeners, who, due to the implications of "infill" policies, do not have their own yards to garden in. Reynolds is the only public community garden to grace downtown Madison.

Like most (if not all) community gardens in the city, the Reynolds garden has a waiting list. (Reportedly the current waiting period for the Reynolds garden is two years.) Many downtown gardeners have to bike or drive out of downtown to other areas of the city to find community garden plots available.

4. PUBLIC LIBRARY ROOFTOP AS POSSIBLE COMMUNITY GARDENS SITE

DCG found early support by standing on a corner at the Farmer's Market, talking to people about community gardens downtown, and collecting signatures on a petition. Full of ideas, questions, suggestions, and enthusiasm, those who stopped asked us what sites we had in mind. Of dozens of possible sites we mentioned, the one that consistently garnered the most enthusiasm was the rooftop of the central public library. People gushed about what a "fabulous" idea it was, and spontaneously mentioned the obvious "synergies" possible.

Since the public library design process was underway at that time, we decided to first focus our efforts on the library rooftop.

5. DEFINITION OF COMMUNITY GARDENS

To facilitate productive discussions about the requirements of community gardens, DCG offers this working definition of a community garden in order to differentiate it from other types of gardens.

A community garden is a publicly accessible, community-centered, cooperatively managed, not-for-profit, food-producing neighborhood space that continues Wisconsin's agricultural tradition.

We also provide this definition because much of the GRFS/MPL seems to lack a full understanding of what community gardens are and how they operate. We are presented with a picture where community gardeners need electricity and lighting, require constant surveillance and security guards, have an irrigation system, and expect others to do their garden maintenance for them. This picture does not match any community gardens we are familiar with, and fails to adequately reflect the many social, cultural, and economic benefits that a community garden can bring to a downtown neighborhood.

6. FEASIBILITY DECISION PRECEDE OR FOLLOW REPORT? (GRFS/MPL does not mention)

Many who read the GRFS/MPL said that it read like a report that was written to support a feasibility decision already made, as opposed to being a document that freely explores the feasibility of a potentially viable option.

The study was ordered by the Common Council on November 10, 2009. We heard nothing about it for almost a year, despite going to scores of city committee meetings. Then, almost a year later, on Sep. 28, 2010, we got two pieces of news simultaneously at an MS & R public presentation on library design. One, "Community gardens are not feasible. There is no feasibility." And two, that there would be a feasibility study.

Outward appearances suggest that the study was ignored for a year, and then the non-feasibility was announced at the same moment the feasibility study commenced.

7. DOWNTOWN IS A SPECIAL CASE

The processes that have led to the establishment of some exemplary community gardens elsewhere in the city of Madison do not work so well for the downtown area. Special characteristics of the downtown area include:

- (A) Very high land values for "on-grade" patches of unpaved land
- (B) Multiple jurisdictions controlling land use (state, local, rights-of-way, and so on)
- (C) Probable brownfield status of much of the dirt anyway

Because of these special circumstances, community gardens are unlikely downtown unless there is strong city support and/or coordination of such gardens. Fortunately, that is already city policy.

Community gardens downtown may have to be quite different from what works elsewhere in the city. Possibilities include:

- (D) Parkland
- (E) Raised beds on the ground (to avoid toxic soil)
- (F) Raised beds on roofs of public and private buildings

8. COMMUNITY GARDENS GOOD FOR PROPERTY VALUES

Many studies over recent decades suggest that urban greening, including community gardens, help to improve communities in many ways, including reducing crime rates and increasing property values. (The DCG Powerpoint includes many examples.) For instance, in *Real Estate Economics* (Summer 2008), authors Ioan Voicu and Vicki Been state:

"We find that community gardens have, on average, significant positive effects on surrounding property values...[Government investments in urban gardens] have a sizable payoff for the surrounding community, and ultimately for the city itself, as it realizes additional property tax revenues from the neighborhood."

The GRFS/MPL does not discuss or factor into costs the potential improvement in downtown property values.

9. ROOFTOPS AROUND WORLD PRODUCE FOOD

Cities all over the world have embraced urban rooftops as delightful sites for greenery, offering the benefits of slowing runoff, cleansing dirty urban air, lowering energy bills by insulating buildings, and providing a welcome touch of green to a brick-and-concrete panorama.

(The DCG Powerpoint presentation contains numerous examples.)

Increasingly, urban rooftops are being utilized for gardens and food production. Among the cities that have very visible food-producing roofs are:

- * MADISON. Madison Children's Museum Rooftop Ramble (Gardens, pond, clubhouse,

classroom, exhibits, homing pigeons, chickens)

*MILWAUKEE. Community Growers CSA (Community Supported Agriculture) in Milwaukee
www.milwaukeeenaissance.com/CommunityGrowersCSAFarm/HomePage

* CHICAGO. True Nature Foods in Chicago
www.urbanhabitatchicago.org/projects/true-nature-foods

* CHICAGO. Gary Comer Youth Center. From their web site: "The 8600 square foot GCYC rooftop garden is an oasis overflowing with more than 1,000 pounds of organic crops and hundreds of native perennials." SEE ComerYouthCenterPic attachment.

* BROOKLYN, NEW YORK. Brooklyn Grange Rooftop Farm.
www.ecocentricblog.org/2010/07/28/a-farm-grows-in-brooklyn-on-a-rooftop-in-queens/
www.ecocentricblog.org/2010/11/19/largest-rooftop-farm-on-the-planet-brooklyn-grange-revisited/

* NEW YORK CITY. Park Slope, Tray System Greenroof Garden
www.thekitchn.com/thekitchn/gardening/how-to-start-a-green-roof-garden-05127

* PETERBOROUGH, CANADA. Trent University Environmental and Resource Sciences Vegetable Garden.
www.greenroofs.com/projects/pview.php?id=558

* MONTREAL, QUEBEC. Montreal's Rooftop Garden Project.
www.insideurbangreen.org/rooftop-garden-project-montreal/

* SPAIN. Spiral Garden in Spain.
www.designboom.com/weblog/cat/8/view/11759/spiral-garden-by-benet-saida-dalmau-anna-julibert-carmen-vilar-iida-awards-2010.html

Madison is clearly behind the curve here.

10. POTENTIAL COMMUNITY GARDENS SITES IN DOWNTOWN PARKS

The GRFS/MPL suggests the possibility of establishing community gardens in Brittingham Park and James Madison Park (GRFS/MPL, Appendices 6 and 7).

DCG has discussed possible park sites for community gardens, has walked the parks, and has had discussions with neighbors and a neighborhood association about the possibility of community gardens in park areas. We are open to the possibility if it turns out to be appropriate.

However,

(A) Generally speaking, we want to see more green space downtown, as opposed to converting one type of green space into another.

(B) We know from talking to people in the two parks that many people are not eager to see any encroachments on the open space now available, which is in some cases heavily used for competing activities.

(C) We have also received intimations that neighbors around both park areas may not welcome the idea of community gardens in the parks.

(D) As great respecters of neighborhoods seeking to maintain and improve the quality of life downtown, we do not want to be party to establishing community gardens if neighborhood support is lacking.

11. GENERAL APPROACH

The GRFS/MPL is short on specifics. Green roof experts we have talked to suggest that the cost figures are so vague as to be meaningless. As a result, the GRFS/MPL gives the impression that an intensive green roof (rooftop community garden) will cost far more than it needs to.

The approach of the GRFS/MPL features these characteristics:

(A) For every item and aspect of the community garden imagined in the GRFS/MPL, the approach seemed to be: 1) find the most expensive item of its class, 2) use the most costly materials available, and 3) consider only the most time-consuming and complex construction methods.

This holds for rain barrels, compost bins, tool shed, and planter beds, and perhaps more general design characteristics as well (such as irrigation and leakage prevention, for example.)

See specific examples throughout this report.

(B) In addition, staff did not consider a range of options for each aspect of the garden, but presented only one, seemingly the most expensive. To mention one single example, they could have considered three different kinds of planter beds, ranging from cheap to extravagant, or from smallish to

extra-large, rather than presenting only a single possibility.

(C) In their cost figures provided on p. 7-1 and in Appendix 3, the GRFS/MPL bundles features together and fails to break out individual costs, thereby making it extremely difficult to understand exactly how costing was done. For example, the figure of \$41.25 per square foot of intensive garden includes a drip irrigation system, and an excessive amount of growing media (dirt: 18" instead of 12-14"), but does not itemize these expenses. Itemized costs would have enabled the general reader to deduct excessive features and reach a more prudent cost estimate.

12. PLANTER BEDS --GRFS/MPL pp. 6-1, 6-3, 6-4, 7-1, Appendix 3.

The beds described in the GRFS/MPL and pictured in Appendix 3 require assembly using skilled labor, power tools, screws, and wood, among other things. However, planter beds used in the Fall 2010 UW Engineering study (outlining how to design a raised bed community garden atop a Madison parking ramp) can be assembled by simply inserting the pre-cut planks into each other, then inserting a metal shaft.

Since the GRFS/MPL did not break out the per-planter costs, DCG is unable to determine the costs of the planters themselves, but they appear to be more expensive and involved. It also seems that labor costs for bed construction would be reduced by using easier-to-assemble planters.

Forty raised beds from Natural Yards (see Raised Bed Shopping Appendix C) would cost \$26,800 plus tax and shipping. The assembly takes minutes and requires no tools (low labor cost). The GRFS/MPL does not break out planter costs, so DCG was unable to make a direct comparison.

The GRFS/MPL proposes 18" of dirt medium in each planter bed. From discussions with gardeners with extensive experience with containerized raised beds, we have understood that 12-14" is sufficient for most vegetables. That would amount to a reduction by 1/3 in amount of media necessary, as well as reduction in materials for planters.

The GRFS/MPL failed to look into smaller/fewer/cheaper options, which might cut costs considerably. Their plan included 40 4 X 12 ft planter beds. (p. 6-1).

For example, the number of beds could be reduced from 40 to 20, and the size of each bed from 48 sf (4 X 12) to 30 sf (3 X 10). The result would be a smaller community garden, but a start. The overall square footage of actual gardening dirt would be reduced from 1920 sf to 600, which would suggest a 2/3 reduction in the cost of planters, dirt, and materials.

Exact numbers cannot be generated here because staff lumped it all together in the study.

Comparing the overall cost of planters visualized by the staff Feasibility Study to that of the UW Engineering group (atop a Madison parking ramp), we find the cost to be \$19,384 per planter bed for the Madison Library rooftop, versus \$2472 per planter bed for the parking ramp.

(The GRFS/MPL total cost was \$775,344.96 for 40 beds, while the Parking Ramp cost was \$309,000 for 125 beds. The Parking Ramp beds were 3 X 10 instead of 4 X 12, and so were slightly smaller. DCG realizes that the top of a parking ramp is different from the library roof, and so this is not a strictly apples-to-apples comparison. Still, the overall difference (\$19,384 minus 2472 = \$16,912) seems to be more than can be explained by the % difference in size (30 sf v. 48 sf), and roof type.)

In short, the GRFS/MPL beds are only 60% larger, but cost 684% more. This suggests that the least expensive option may not have been considered.

By choosing smaller planter beds that are cheaper and easier to assemble, projecting a smaller number of beds, eliminating an expensive and potentially unnecessary high-tech drip irrigation system, and using only the depth of dirt necessary to grow vegetables, the GRFS/MPL could have cut costs considerably.

DCG cannot be more precise because staff did not itemize most costs, instead presenting large totals. However, we could make a ballpark guess that the GRFS/MPL base cost of \$247,500 for the rooftop community garden might be reduced by half to approximately \$125,000.

13. RAIN BARRELS GRFS/MPL p. 7-1

The GRFS/MPL includes 6 rain barrels at \$400 each.

According to DCG research, typically rain barrels have a capacity of 50-70 gallons and cost \$80-260 (vs. \$400). A \$400 rain barrel is likely too heavy for use on a rooftop.

(See Compost Shed Barrel Shopping Appendix B for details.)

For instance, 6 barrels at, say \$200 each would cost half as much as the ones suggested in the

GRFS/MPL. Total rain barrel cost would be \$1200 instead of \$2400.

14. COMPOST BINS --GRFS/MPL p. 7-1, Appendix 3

The GRFS/MPL lists 3 compost bins (each w 3 compartments) @ \$1000 each.

According to DCG research, 3 unit compost bin costs about \$540 including shipping. The unit listed in the DCG shopping appendix would require minimal assembly (estimated time, ten minutes = low labor cost).

The GRFS/MPL projection for three sets of 3-bin compost bins comes to \$3000, while the DCG alternative is \$1620. That is a savings of \$1380, a 46% reduction in GRFS/MPL cost estimate.

In addition, if the number of planter beds were reduced from 40 to 20 (suggested above by DCG as a possible way to reduce costs and reach "feasibility"), then the rooftop garden would probably require only two (instead of 3) 3-bin sets. In that case, the cost of two bins would be \$1080, \$1920 less than the GRFS/MPL projected \$3000, which amounts to a 64% reduction.

(See Compost Shed Barrel Shopping Appendix B for details.)

Since compost needs frequent turning, front slats should be removable, or replaced by a door of some kind so gardeners can turn compost piles from the front. It is extremely difficult to turn a compost pile by digging down into a box-like container. The bins suggested by DCG meet this requirement, while the GRFS/MPL's more expensive bins do not.

15. TOOL SHED GRFS/MPL pp. 6-2, 7-1

The GRFS/MPL has a tool shed (100 sq. ft.) costing \$21,800. The report cites the cost at \$218 per sf, but does not explain how that figure was arrived at. The GRFS/MPL Appendix 3 does not include any tool shed information.

In order to avoid the perceived need for an internal sprinkler system and other fire prevention/mitigation provisions, one person who preferred to remain anonymous suggested: "The garden shed could be a prefabricated shed made out of fire retardant material, like metal (or plastic)."

As an example of how costs can be reduced, DCG research found that two smaller toolsheds, with a combined total of 106 cubic feet of storage space, would cost approximately \$800 (plus tax and shipping).

Even considering a cost of \$1000 for two small tool sheds (instead of one bigger one), the DCG cost is less than 5% of the staff cost projections.

(See Compost Shed Barrel Shopping Appendix B for details.)

16. LIGHTS & ELECTRICITY --GRFS/MPL p. 7-1, p. 6-3

Trust us on this: gardeners do not work in the dark. Sunup to sundown are the usual hours, with especially heavy use usually on weekday evenings and on weekends.

We do not know of any community gardens anywhere in the US that require electricity, or lights. If they do, it is not for the gardeners. The requirement for one light for each of 40 planter beds invites the image of planter beds looking like pool tables in taverns, each with its own light.

Projected costs for lights and electricity (p. 7-1) include \$120,000 for electrical construction, \$1000 for lamp replacement (maintenance), and an additional \$12,000 for water and electricity maintenance costs where the electricity portion is not broken out as a separate category.

17. ENERGY COST REDUCTION FROM DIFFERENT ROOF SCENARIOS NOT FACTORED IN -- GRFS/MPL p. 5-1, 5-2

Though the GRFS/MPL acknowledges that energy savings during all seasons may result from green roofs of various types, there is no effort to estimate and quantify the expected energy savings. Such estimates would model energy expenditures for a) all three types of roof: regular, extensive green, and community gardens, b) annual energy bills, and c) energy savings and expenditures over the expected lifetime of the roof, and of the building.

An examination of historic data from a few existing green roofs would provide real-world figures to aid in projecting energy savings to the library. Barring that, staff could estimate energy-saving effects based on type of cover or other engineering rules of thumb.

Inclusion of estimated projected savings of this nature would reduce the overall cost estimate for community gardens on the rooftop.

DCG research into energy cost savings revealed the following. Summertime energy savings are both a factor of heat gain through the roof and ambient temperature of the surrounding environment. A group in Florida showed a vegetated rooftop has a lower average peak temperature by 39°F. compared to a conventional roof.³

In Chicago, the City Hall building has been extensively studied. The ambient air temperature was 7°F. less over the green roof on City Hall compared to the black-tar roof of the Cook County building. That is a significant reduction of urban heat-island effect. By decreasing ambient temperatures of a city, vegetated rooftops reduce the cooling needs of the entire community during the summer. If every building in Chicago were given a green roof, the city would save an estimated 720 megawatts of energy or \$100,000,000 every year.⁴

In the winter the garden serves as another layer of insulation. Researchers from the University of Toronto found that a vegetated rooftop saves 6-30% of total heat energy consumption in the wintertime.⁵ The net energy savings will vary based on individual building characteristics.

Serious energy modeling studies should be done before the vegetated rooftop option is rejected. The absence of the estimated energy savings and rooftop lifespan extension in the cost estimate biases the conventional roof. Without full information available, the opportunity cost of the rooftop community garden suffers compared to better fleshed out aspects of the library design. The feasibility study would best serve decision-makers by incorporating potential annual energy savings into the cost estimate.

18. RUNOFF REDUCTION AND ROOF LIFE BENEFITS NOT FACTORED IN --GRFS/MPL p. 5-2

Rainwater catchment and absorption, concomitant reduction in runoff problems "below," decreased need for runoff-handling features and fixtures, longer roof life, and the short- and long-term benefits to lake and river water quality should be factored into cost-benefit calculations.

"In Europe, green roofs have extended the lifespan of a roofing membrane to two or three times that of a conventional roofing system."⁶

Vegetated rooftops act as a sponge for moisture. Every four inches of soil stores an inch of rainwater. A green roof with a 3-4" soil depth will reduce storm water runoff by 75%.⁷ The greater depth of the proposed community garden planter beds in combination with the rainwater collection system ought to reduce runoff by an even greater degree.

The Department of Energy (in the 2004 *Green Roof* report cited above) also suggests that "Integrating green roofs into storm water permitting requirements may be the most realistic way to make them more financially viable." The 2011 City of Madison Sustainability Plan calls for improving surface water quality and storm water management. One tactic would be to reduce runoff, particularly construction runoff. A rooftop community garden on the public library would be a step in the right direction.

Though indirect and difficult to quantify, inclusion of indirect benefits and estimated savings would reduce the overall cost estimate for community gardens on the rooftop.

19. GUARDRAILS - GRFS/MPL, pp. 6-2, 6-4, Appendix 3 (under Roofing)

GRFS/MPL includes a \$56,000 cost for 224 linear feet of guardrail @ \$250 per foot. Supporting materials in Appendix 3 cite \$48,000 for 192 linear feet of Ornamental Metal (glass & stainless steel railings on the roof.)

DCG would like to see an explanation of the discrepancy between the two figures, some range for railing options, and evidence to suggest that these railings are of modest but adequate quality, and not more elaborate than necessary for safety and windbreak functions.

We are not guardrail experts, but perhaps a tall and inexpensive railing could be combined with a short inexpensive glass or plastic transparent wind barrier.

20. ELEVATOR -- GRFS/MPL P. 6-4, 7-1

DCG showed this report to many people, and the most common response overall was probably surprise (sometimes indignation) that gardener use of the public and/or staff elevator at the library could be such a big deal.

One person, who asked to remain anonymous, said, "The people who garden on the rooftop should be able to use the public elevator because they are members of the public and there is no reason to segregate them."

The GRFS/MPL states that gardeners using either of two library elevators would present considerable difficulties for library staff and/or the public.

Remember that the dirt and tools would already be up there on the roof. Compost bins would be providing new soil. Water hookups and watering cans will be provided. In the spring, gardeners would probably be carrying little upward except seeds and a few plants for transplanting. Later, they might bring only a bottle of water or snack. Downward trips would probably involve things like salad greens, and, later, tomatoes.

In addition, the muddy shoes that accompany much gardening would not be a factor, since soil is contained in raised beds.

Projected costs for a third elevator are \$199,212.

21. DRIP IRRIGATION GRFS/MPL, pp. 4-1, 6-4, Appendix 3.

A system of drip irrigation is proposed for the community gardens. DCG has never heard of a community garden with drip irrigation.

Drip irrigation may or may not be a good idea, but it is not an essential element of an intensive green roof. There should have been more research and discussion on this topic to back up the assumed need.

Projected costs for the drip irrigation system are \$12,000.

22. TRASH & DEBRIS MAINTENANCE --GRFS/MPL pp. 6-4, 7-1,

As DCG pointed out in its notes to city staff, "Most community gardens (each is unique) use some sort of Volunteer Coordinating Committees (cf. Eagle Heights Community Gardens), which organize seasonal work crews (usually at beginning and end of season), and regular checks for things like upkeep and appearance, weeding, water leaks, and other problems or issues that may arise."

The GRFS/MPL includes a \$500 lump sum for "Trash and plant debris clean up" (p. 7-1), but does not make clear what this is for.

In the GRFS/MPL, staff does not include any sample maintenance cost estimates or averages from other community gardens, including any of the dozens in the City of Madison. Considering the amount of work traditionally done by gardeners themselves (in volunteer teams or individually), the cited "maintenance" costs seems excessive. It is difficult to ascertain for certain since no reasons for these figures are given, nor are examples cited.

Community gardeners are generally friendly and helpful. A visit to some of the city's many successful community gardens, for observation or consultation, would clarify many aspects of community garden maintenance practices.

23. SECURITY -- GRFS/MPL pp. 6-3, 6-4, 7-1, and 8-1.

We are not aware of any community gardens anywhere in the US that require security guards, yet the report considers this a necessity, and this item accounts for considerable expense.

The GRFS/MPL (p. 6-3) notes that the Madison Public Library is responsible for the security of building occupants, and that therefore the Library would have to provide monitoring of the rooftop community gardens both during regular library hours, (which currently do not include Sundays during the gardening season), and during other times when the gardens are in use.

Usual community gardening hours are daylight hours, but because so many people work weekdays until about 5 pm, the bulk of community gardening is done weekday evenings until sundown, and weekends, including Sundays. It is difficult to imagine a successful (and well-maintained) community garden that is not open all day Sunday.

Providing security for the community garden accounts for \$131,100 of the estimated \$149,850 projected annual maintenance costs. (GRFS/MPL p. 7-1: \$97,500 regular operating hours and \$33,600 Sundays during the growing season).

Community gardens around the city function without security guards.

We found ourselves wondering why community gardens on the library rooftop would need more security than any other community gardens in the city; why the Rooftop Ramble atop the Madison Children's Museum has many hundreds of visitors daily and does not require special security; why parking ramps all over town featuring inebriated people trying to operate motor vehicles late at night do not have special security, and so on.

There are many possible ways to think this through and arrive at commonsensical solutions. Maybe installation of security cameras would resolve the perceived dangers. Perhaps the garden rooftop could be labeled and zoned as a city park, or as a community garden (instead of as a library rooftop). City staff has offered and worked out numerous creative solutions to many downtown situations. Two of the most recent were the re-modeling of the Lisa Link Peace Park, and the Edgewater redevelopment, both of which involved considerable creative thinking and even re-writing of restrictive ordinances.

City staff could have researched how other major cities have handled the challenges of food-producing rooftops without onerous security requirements. "Getting to Yes" implies looking for ways to make something work, as opposed to looking for legal obstacles and ordinances that offer opportunities to increase costs.

24. LIABILITY/LEASE AGREEMENT --GRFS/MPL p. 6-3

The Downtown Community Gardens group is seeking to assist the City of Madison in carrying out already existing policy (see above) regarding community gardens and sustainability. We have suggested a plausible and very popular site for much-needed downtown community gardens.

As we have noted, the downtown area is special, and presents special challenges that will probably have to be met by special city attention, the "strong government support" for community gardens that is also city policy.

The GRFS/MPL, if it represents city policy, suggests that the city is not committed to carrying out policies that have been in place (and not acted on) since 1999.

Specifically, the GRFS/MPL would require gardeners to "sign a lease with the City of Madison and indemnify and hold harmless the City of Madison from any claims associated with use of the community garden. In addition this entity would be required to be capable of acquiring insurance at levels required by the City of Madison."

Clearly a group of gardeners without massive resources will not be able to meet this condition.

We elect representatives and pay taxes to support staff so that public services and amenities (such as pothole-filling, libraries, parking ramps, bike paths, and community gardens) can be provided for the public.

25. DCG SUPPORTS THE CENTRAL PUBLIC LIBRARY

The GRFS/MPL says that including a community garden on the library rooftop would "result in taking construction dollars away from an efficient heating and cooling system, a well sealed and insulated building enclosure, and/or high quality interior finishes and furnishings" (p. 8-1).

Put bluntly, it suggests if the city puts in a community garden, we'll have to shiver in the winter and sweat in the summer while we sit on the floor at the library.

DCG is concerned that this may suggest that DCG folks are not enthusiastic library supporters. DCG believes that public libraries and community gardens are among the most important institutions in a democracy, and that they have much in common. In no way do we advocate limiting library heating, cooling, or seating.

DCG is also concerned that this way of thinking may tend to unfairly set community members against each other. Someone who supports bike paths is not opposed to filling potholes. People who support community gardens do not advocate making people sit on milk crates at the library.

DCG reiterates its wholehearted and enthusiastic support for long-overdue improvements at our community's Central Public Library.

26. COMMUNITY OUTREACH VIA COMMUNITY GARDENS (GRFS/MPL does not cover)

Increasing community support for the new Central Public Library has been a theme at public library planning meetings for the two years that DCG has been attending them. At every MS & R design public meeting, people have urged that the design offer some architectural "pizazz" in order to spark community excitement and support. For example, at the Sep. 29, 2010 meeting, comments included a request for something "dramatic" in order to "excite" people. DCG would like to suggest that architectural drama is not the only way to get more people excited about the public library.

At every one of the two dozen Library Board meetings that DCG has attended, there has been discussion of how to increase community support, how to get the community to "buy in" to library plans, and how to reach constituencies that have not yet offered support for the new library. At the February

Library Board meeting (which was held on Jan. 27, 2011), there was considerable discussion about the fact that the community has not been as involved with the library as is desired, and about how to identify and attract current "non-users."

At that January 27 meeting, the Library Board voted to recommend hiring a consultant to employ data-mining techniques to identify and reach out to a wider range of "stakeholders" in order to garner more community support for the library. In February 2011 the Common Council authorized the library's request to spend over \$50,000 on a consultant (a company called OrangeBoy, which would own all data collected) to help them reach more constituents.

Meanwhile, over that same two-year period, the Downtown Community Gardens group has been advocating using the library rooftop community gardens idea to exploit various synergies in order to hook up the library to many other constituencies. Among them are gardeners and their families, local food and agriculture groups, food pantries and restaurants, churches and schools, ethnic communities, and nonprofits engaged in various public services.

Community gardens are magnets for social interaction and sharing, and thus would be a natural way to bring more people and new "stakeholders" downtown to explore and appreciate their central public library. No consultant needed.

The GRFS/MPL did not mention these social/community outreach benefits that are especially relevant to the public library setting. At page 8-1, Point 02, the GRFS/MPL basically says that gardens do not fit with the library's vision:

"Community gardening on the roof of the library is not viewed as an activity that meshes with the library's vision or operational procedures now or in the near future."

Evidently, the library "vision" includes hiring consultants to reach community "stakeholders" but not exploring rooftop community gardens as a popular way to do so.

27. DCG BALLPARK COST ESTIMATES

Working with the incomplete and mostly unitemized information presented in the GRFS/MPL, the Downtown Community Gardens (DCG) group estimates that the overall costs of a rooftop community garden on the Central Public Library could be reduced from the staff's projected \$775,344.96 to \$296,000, or even less. (Extensive green roof costs are listed as \$156,000, p. 7-1.)

This reduction is accomplished by deducting the cost of electricity, the third elevator, and drip irrigation (\$120,000 savings, \$199,212 savings, and \$12,000 savings, respectively); and reducing the excessive costs for planters (\$125,000 savings), rain barrels (\$1200 savings), compost bins (\$1920 savings), and tool shed (\$21,000 savings).

In addition, DCG estimates that the annual maintenance costs might be reduced from staff's projected \$149,850 to as little as \$7,250.

This is accomplished by reducing utility costs by 2/3 (staff does not break out figures for electricity and water, so this is an estimate), eliminating costs for extra security, for removing abandoned beds (?), and for trash removal. It also removes \$3000 for guardrail repair, because we could not imagine how gardeners or tomatoes could harm an industrial-strength guardrail.

The DCG figures above do not include energy savings, extended roof life, runoff reduction, or potential property value increases, because the staff did not estimate these.

Background material for these overall estimated savings can be found in discussions above, and in Appendices to this report.

28. GETTING TO YES

The 2009 *Madison Sustainability Report* notes that "in many older cities, planning for urban agriculture will require a reevaluation of old zoning codes and expansion on developed but under-utilized public and private properties."⁸ That is the kind of reevaluation and creative thinking that "getting to yes" entails.

When Madison decides to Get To Yes, it gets there, as recent downtown issues illustrate. When the city staff wants to get to yes, they innovate, look at challenges from fresh angles, use their imaginations, propose variances, exemptions, and special conditional permits, and where necessary, even re-write ordinances, write new ordinances, and adjust zoning categories.

In the fixtures and materials for the gardens, many missed possibilities are noted in this report. In addition, comments from the public at the end of the report offer more ideas for cost reductions and

simplifications that bring us closer to feasibility.

In the computation of costs, the GRFS/MPL fails to cost out energy savings, extended roof life, and runoff reduction, and then apply these savings to the overall costs.

The GRFS/MPL has failed to pursue options in the area of creative problem-solving along the lines of what we see in Madison when it comes to winter street maintenance or large downtown developments.

Some examples of pursuing options and creative problem-solving include:

- * Providing a range of possibilities for each aspect of the garden, so as to select the more feasible options, instead of just selecting the most expensive and energy intensive way to do everything.

- * Invent a new zoning and/or building code category, for public vegetable gardens on roofs. Include appropriate but not excessive consideration for security, access, and the like.

- * Look for ways to make it possible, instead of finding every possible ordinance and legal consideration that might be an obstacle and increase costs.

- * Look to other cities and places where rooftop food production is already underway, and see what kinds of zoning and building code adjustments have been made.

Existing zoning codes and regulations were not designed with rooftop community gardens in mind. As a result, current law sets up obstacles that make rooftop community gardens more expensive than they ought to be. When this happens with desirable projects, standard procedure is to be creative in finding solutions, reinterpret the rules, or simply rewrite out-dated laws in order to adapt them to the new understanding of what sustainability and green cities require.

A community garden on a rooftop is a truly new combination. Existing regulations should be modified with that in mind.

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APPENDIX A. OTHER COMMENTS FROM COMMUNITY GARDEN SUPPORTERS.

(NB: Appendices B and C are separate attachments, as is a picture of the Chicago Youth Center organic garden.)

Note: Appendix A includes quotes from comments received by DCG about the Feasibility Study. Several have been redacted for length.

Most here are without names attached; those who want their views and names known to the world at large were encouraged to submit comments directly to staff or alders.

* WHY MAKE THE ROOFTOP COMMUNITY GARDEN A LIBRARY RESPONSIBILITY?

Several people asked why the cost of a community garden downtown should be the responsibility of the Public Library at all. I.e., since this is a public project, why shouldn't the city bear these costs as it bears the cost of winter street plowing, filling potholes, and other important public services.

* IS LIBRARY MANAGEMENT BEING SHORT-SIGHTED?

Verbatim from a gardener: We understand that library administrators have been preoccupied if not overwhelmed over that past several years with the challenges of getting a new library without the added challenges posed by a rooftop community garden. At the same time, we feel that library leadership and staff are shortsighted in not appreciating the many benefits that could accrue to the library from a rooftop community garden.

There are a number of good reasons why it is important not to close the door completely on the idea. These include: (1) Madison has a long-standing policy to promote community gardens downtown; (2) the mayor signed the petition indicating his support for more community gardens downtown; (3) rooftop gardens may very well be a better solution than ground-level sites; and (4) there are many environmental, economic, social, and cultural benefits of a community garden generally, and tremendous potential synergies associated with combining a rooftop community garden with a public library in particular.

* THAT DARN THIRD ELEVATOR PROBLEM

Verbatim from one concerned downtowner: What are the assumptions being made about gardens and gardeners?

There seem to be many misconceptions about both gardens and gardeners. I can understand not wanting dirt and plant material tracked into a pristine new library. There are, however, ways to address this issue. Bins could be used to place materials in for transport through the library.

Having garden plots on the roof does not necessarily mean the elevator will be hijacked for garden use for a significant portion of the work day. I would assume that there might be an initial demand in the early spring and then it would taper until a cleanup and preparation for winter in the late Fall. In the rare event that there became a problem with transport of mature plants, gardeners could be restricted to planting only with seeds or seedlings for transplant. Aside from the take-home product, plant waste would be composted on the rooftop. There would be no need to transport it in an elevator.

Are gardeners working from raised beds necessarily more dirty than your average library patron? With an appropriate raised bed size and shape there isn't much need to crawl into the raised bed. Gloves are typically worn while working in the garden. Gloves could be stored in the storage shed. There could be special mats to remove excess dirt from shoes. This type of garden simply doesn't require a special elevator.

Comments from another gardener: An additional elevator for gardeners is unnecessary. Able-bodied gardeners could be asked to use the stairs only. The heaviest objects gardeners will carry to their plots are tomato and pepper plants in the Spring and the fruits of the Fall harvest. There is no reason that an able-bodied gardener would need to use an elevator to do such. The large and messy items (soil, bed frames, shed, tools, etc.) will all be brought up at the onset of the garden before the library opens. If a wheelbarrow need ever be replaced, it could be done during off-hours of the library, in coordination with library staff as to avoid any serious traffic jams.

* EXCERPTS FORWARDED TO DCG FROM THE DEC. 18, 2009 MADISON SUSTAINABILITY REPORT

"...[a] growing awareness of the strong connections between food, public health, local economic development and environmental stewardship has caused many municipalities to explore ways of integrating the food system into their land-use, open space and economic development planning. Food system initiatives and policies typically [include] ... urban and regional agriculture [and the fostering of] community gardens through demonstration victory gardens on public land, long-term lease agreements; partnerships with job training, agricultural, and nutrition groups" (p viii).

"...food is an issue that must be addressed within Madison's sustainability framework" (p. 67).

"...public agencies are increasingly reevaluating under-utilized public and private properties within their foodsheds.... In many older cities, planning for urban agriculture will require a reevaluation of old zoning codes and expansion on developed but under-utilized public and private properties" (p. 69-71).

* A FEATHER IN MADISON'S CAP

Excerpts from Emily Duma of Slow Food-UW: I am in firm support of the addition of an intensive green roof (community garden) to the library proposal - it would be an asset to the community and the downtown area. I have read the study in its entirety, and understand the concerns of the city and the designers based on cost, but I believe that the benefits would far outweigh the additional fees associated with the project.

...it would be a feather in the cap of our city to have a rooftop community garden so close to the capital.

If this is not possible, I would very much encourage that the city just put in enough infrastructure to allow the possibility of the garden at some point in the future, giving outside organizations the time to find the necessary funds.

* THE SECURITY GUARD PROBLEM (est. \$131,100/year)

From one gardener: The following questions come to mind: Why is it necessary to have full time staff to monitor the community garden during all hours when the garden is open? What codes require this level of monitoring? What is the potential for modifying codes to accommodate a community garden on the roofs of public (or private) buildings downtown (or anywhere)? What other public space, e.g., park or parking ramp, requires or maintains this level of monitoring? What makes the library different?

From another gardener: The approach presented using full-time security personal seems to fly in the face of actual need. Assuming that you will have a security camera presence, then using a reprogrammable door lock in concert with the security camera system could probably achieve the same level of security for less than \$2,000 installed.

* WHY BOTHER WITH ROOFTOP SITES?

From a downtowner: Ground sites may be more accessible, visible, and less expensive, but rooftop gardens are worth pursuing as land downtown becomes less available and highest and best use may be other than community gardens.

DCG note: Over the years, the soil in a community garden becomes considerably enriched from composting and cultivation. One disadvantage of urban ground sites is that after years of such soil enhancement, the sites may be "de-commissioned" and taken for parking lots or office buildings, which is a terrible waste of good soil. Rooftop sites in urban areas may turn out to be more stable over time.

* GETTING TO YES AND COST FIGURES

From a gardener: During the Common Council meeting when the feasibility study amendment was voted on, at least one alder expressed hope that city staff would, as part of the study, attempt to "get to yes." Instead of trying to get to yes, I feel that city staff produced a study designed to get to NO, i.e., one that supports the pre-drawn conclusion that a rooftop community garden for the library simply isn't feasible. This lack of will to get to yes is reflected in what costs are reported and how they are reported, overlooking the many potential benefits of a community garden as part of the library, and the absence of

any forward thinking or creative problem solving.

Cost-related problems in this study include: the lack of sufficiently clear supporting documentation to make it possible to discern individual costs for specific garden elements; excessive costs; and including unnecessary garden elements. Whether intentional or not, these three aspects of the study not only suggest a lack of will on the part of city staff to get to yes, but a seemingly rushed approach to the task at hand.

There is difficulty in discerning specific costs. For example, the base cost given for the intensive green roof including planters is \$247,500. But how much of this is for the base cost of the intensive green roof and how much for the planters/containers, and how much for the engineered soil to fill them? How much of the \$21,800 listed for the shed is to cover the cost of the sprinkler system? Or, how much of the \$12,000 for plumbing is needed to cover the cost of the drip irrigation system *versus* supplying water to a few hose bibs? And how much of the \$120,000 for electrical is for emergency lighting and a back-up power source and how much for a light fixture at each raised bed and exit path lighting? At best, it is impossible to adequately analyze the costs involved or compare them meaningfully with those included for the other two roof types (extensive green roof and traditional roof). At worst, the figures give a highly misleading impression of the cost of a rooftop community garden.

* FAVORITE SHORTEST QUOTE

From a sustainability supporter: Rain barrels don't cost \$400.

* REVISE CODE

From a statewide household name: Why be restricted by these codes? Consider revising codes for this *unique* project?

* OVER-ENGINEERING OR DUPLICATIVE FEATURES

From a gardener: Figure 1 on page 4-1 provides a description of the elements typically called for in an intensive green roof that will accommodate large plants, shrubs, small trees, or vegetables. There are two problems with this. The first is that a community garden such as is proposed would not include large plants, shrubs, or small trees. Moreover, the use of containers obviates the need for the 6,000 square feet of intensive green roof components described in Figure 1 on page 4-1 of the study. All that would be required is a surface similar to what will be needed for the public terrace—that will support human traffic, certainly less complicated and less costly than putting in an intensive green roof as described in Figure 1.

* GUARD RAIL AND WINDBREAK

A gardener asks: And why call for both a guard rail and a windbreak, especially when each comes in at \$56,000? Why couldn't these be incorporated into one structure, as has been done at the Children's Museum of Madison?

* BACK-OF-THE-ENVELOPE COST REDUCTIONS.

Many gardeners glommed onto the Feasibility Study numbers and came up with their own ways to drastically reduce projected costs. We will not reproduce all of them here.

But one, for example, *reduced the project cost by almost \$500,000* (from the staff's original cost of \$775,344.96) simply by removing the drip irrigation system, the third elevator, lighting, guardrail/wind break redundancies, duplication in roof protections against leakage, and excessive costs for tool shed, compost bins, and rain barrels.

DCG note: These estimates could be reduced even further by reducing the number and size of planter beds, and cutting out the third compost bin set.

* SOCIAL BENEFITS OF COMMUNITY GARDENS.

From a gardener: Cities all over the world are recognizing the growing importance of urban agriculture and the development of under-utilized public properties, including rooftops, for this purpose. Here in Madison, both the new zoning code and the sustainability plan currently under development build on a history of support for community gardens and recognize the strong connections between community gardens and public health and wellbeing, strong neighborhoods, and environmental stewardship.

Community gardens can raise property values. But more than that, community gardens address

the issues of food security, health, and nutrition by providing affordable, highly nutritious food close to home.

Community gardens contribute to social capital and community health. By bringing people of all ages and backgrounds together, community gardens facilitate mutual understanding, foster healthy lifestyles, provide a source of personal and collective pride, offer an outlet for creativity, and provide opportunities for community participation and public education. Research findings show that community gardens can also reduce aggression and crime.

Community gardens support higher population density and promote strong and healthy neighborhoods.

From another gardener: The social benefits cannot go unstated. The intangibles are vitally important. Building strong community networks, creating an environment for diversity to flourish, and educational opportunities for people of all ages, etc. These are the factors that give community members the sense of place and ownership that reduces crime and in turn raises property values (i.e. increased tax revenue).

The 2011 City of Madison Sustainability plan calls for holistic land use in the future. What better way to lead by example than through a multi-faceted, multi-purposed City-owned building in downtown Madison that serves as the meeting center, the information center, an education center, and a garden hub? The feasibility study ought to be revisited with an approach that understands community gardens and the gardeners in them. Only then will we be seriously trying to get to yes.

DCG note: Our Powerpoint presentation includes a section on the role of community gardens in lowering crime, and raising property values.

***LACK OF REAL-LIFE RESEARCH.**

From a long-time gardener and recipe source: Most amazing to me is that they didn't even bother to do cost/benefit analysis based upon the real-life experiences of other rooftop gardens - but, I guess their mere existence would disprove the recommendation.

*** GREEN ROOF VERSUS SOLAR?**

From a sustainability advocate: Green roof does NOT preclude installation of solar panels – it can be quite compatible.

*** OVERALL COSTS EXCESSIVE?**

From an urban agriculture person: Overall costs seem excessive. A storage shed for \$21,000? More staffing and fulltime security for \$130,000? Why not just have a surveillance camera? Couldn't a group of volunteers coordinate as happens with other community gardens in Madison?

*** INDOOR LIGHTING STANDARDS APPLY?**

Another gardener questioned why indoor lighting standards would apply (IBC 1205.3 Artificial Light), and suggested that the garden area might qualify as "Assembly Group A-5" or as a "Court," with less demanding lighting requirements.

¹ *Growing A Stronger Community with Community Gardens: An Action Plan for Madison* (November 30, 1999 report), incorporated by reference into the City of Madison Comprehensive Plan (January 2006).

² *Madison Sustainability Report: Precedents from around the world & a synthesis of public input*, URPL 912, Fall 2009, Table 2, p. 111. This is the product of the Planning Workshop Class of the Dept of Urban and Regional Planning at UW-Madison. Jeanne Hoffman is mentioned prominently in the acknowledgments.

³ "Evaluating Green Roof Energy Performance," Jeff Sonne, *ASHRAE Journal* Vol. 48 (Feb. 2006).

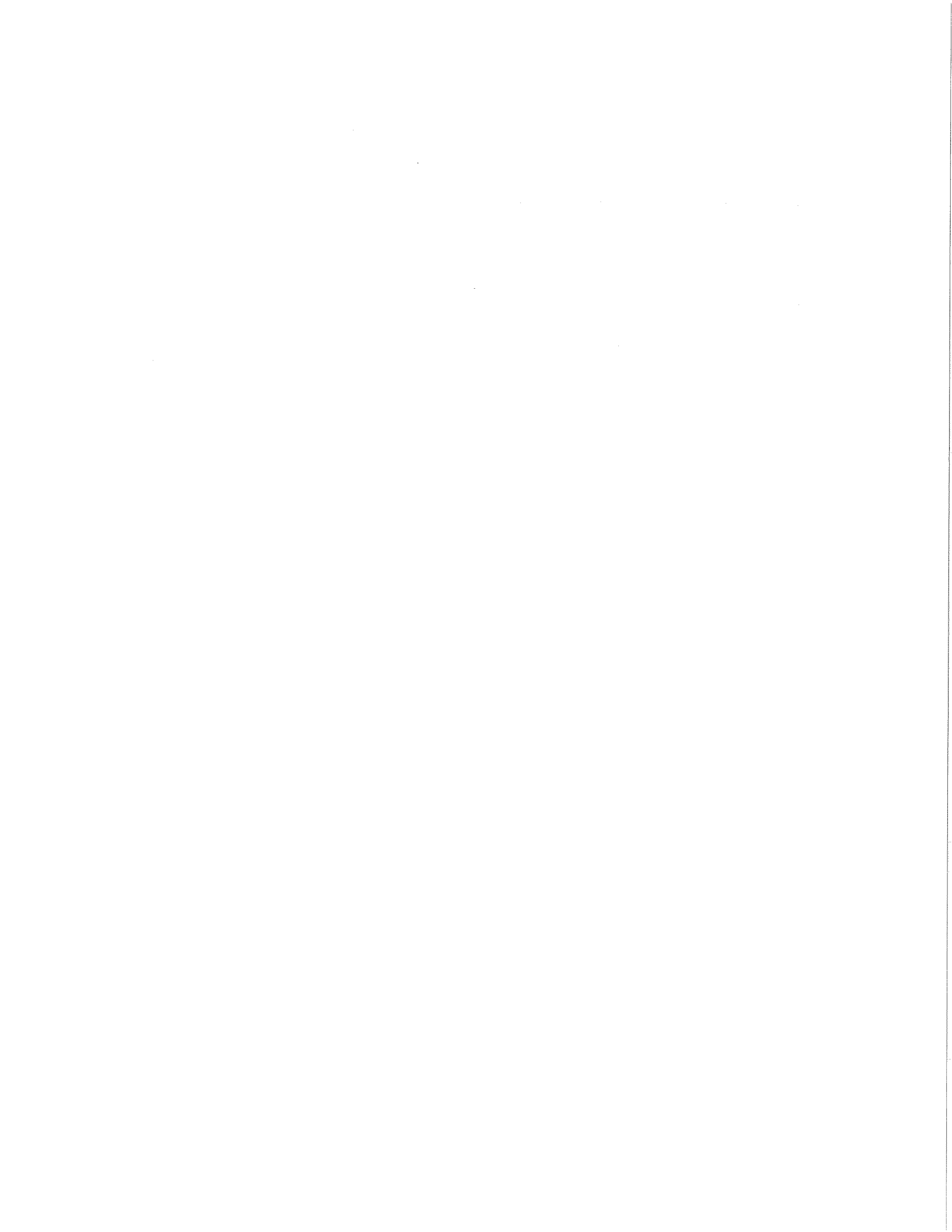
⁴ *Green Roofs: Green roofs can improve the energy performance of federal buildings, help manage stormwater, reduce airborne emissions, and mitigate the effects of urban heat islands*, Department of Energy, Federal Energy Management Program, 2004.

⁵ *Green Roofs and Green Walls: Potential Energy Savings in the Winter*, Brad Bass, Adaptation & Impacts Research Division Environment Canada, at the University of Toronto Centre for Environment (March 31, 2007 report).

⁶ *Green Roofs*, DOE 2004.

⁷ *Green Roofs*, DOE 2004.

⁸ *Madison Sustainability Report: Precedents from around the world & a synthesis of public input*, URPL 912, Fall 2009, p. 71. This is the product of the Planning Workshop Class of the Dept of Urban and Regional Planning at UW-Madison. Jeanne Hoffman is mentioned prominently in the acknowledgments.

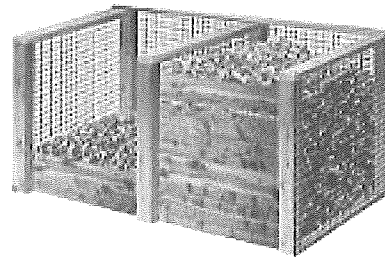


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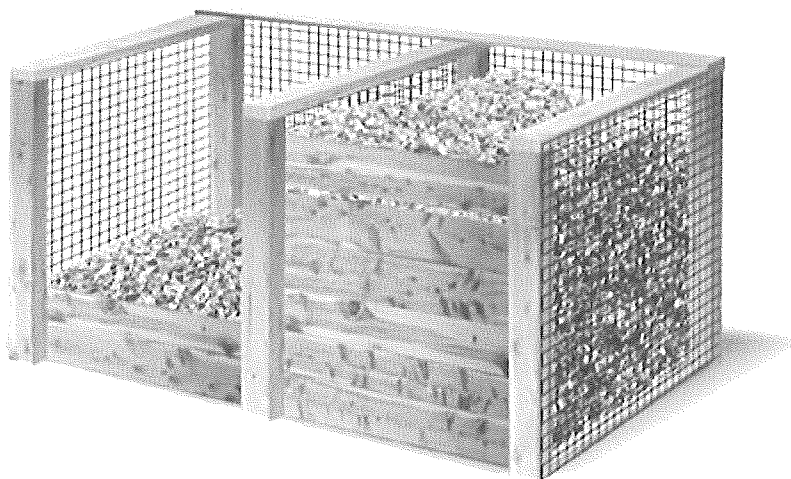
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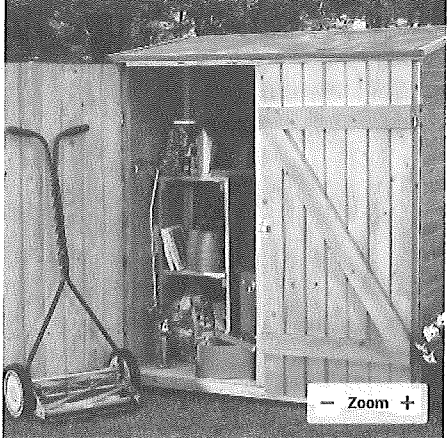
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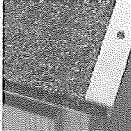
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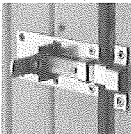
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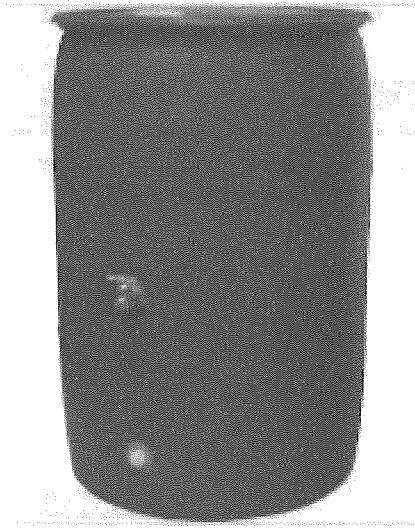
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- Easy to assemble in 20-30 minutes.
- Comes with overflow holes and solid brass tap.
- Universal downspout connection kit included.
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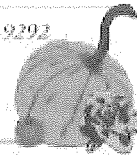
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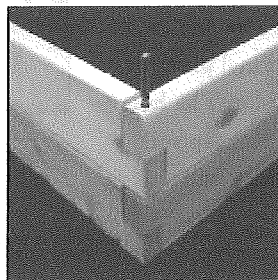
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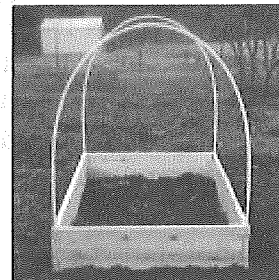
We have designed a kit to make building a raised bed as **easy as possible**. Just level ground, stack boards, and insert corner pins to create a long-lasting bed for your flowers and vegetables. **No tools necessary**. Assembly takes just minutes.



*Raised beds are available in hundreds of shapes and sizes.
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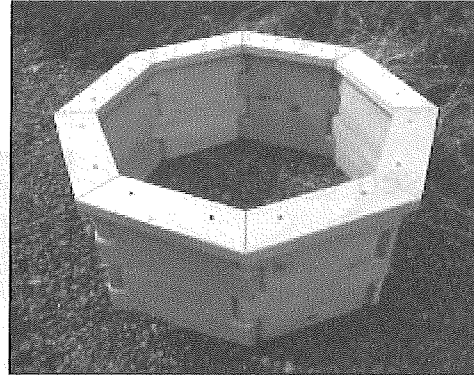
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We now offer hexagon- and octagon-shaped raised beds in a variety of sizes—from small **flower boxes** to large **tree planters**, as well as tall planters with holes made for vertical gardening. Our patented design allows each board to pivot on its corner pins, creating unique possibilities for unusual planter shapes. Assembly follows the same easy steps as our regular raised beds: just stack boards, insert corner pins, and—well, you're done!

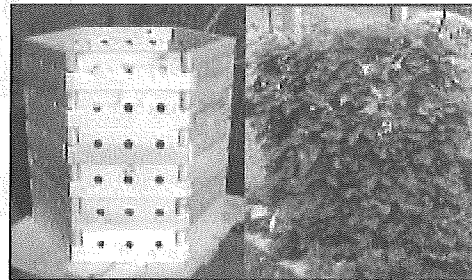
Vertical Garden Beds—Strawberry Planters and Potato Towers

Where space is limited, our hexagonal and octagonal **vertical garden beds** are an excellent option. The boards have 1½-inch holes drilled at 4-inch intervals to allow for additional planting surfaces along the sides of the planter. The holes are cut at an inward-sloping angle to keep soil and water inside of the planter. This results in greatly increased growing space, with minimal footprint, that's perfect for use as a potato planter or strawberry tower!

As with our regular raised beds, hexagonal and octagonal beds are available with optional planter bottoms, top rails, and trim pack options (see below). **Custom shapes and sizes** are also available. For more information and pricing, please call **(503) 802-9292**.



*2'x2'x11" Octagonal Raised Bed with Top Rail.
Please call for more sizes and pricing.*



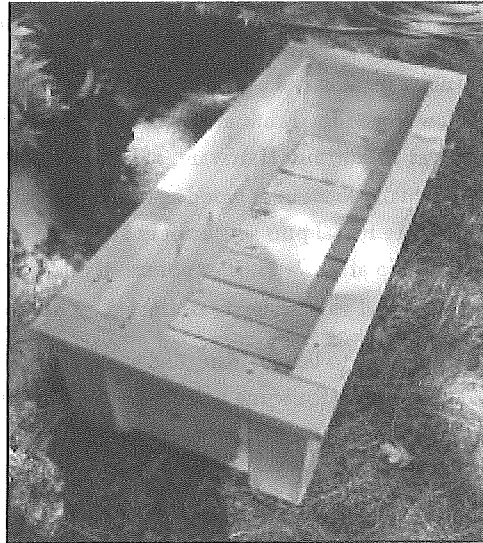
*2.5'x3'x33" Hexagonal Vertical Garden Bed
makes a great strawberry planter. Shown here
before and after planting.*

Also New! Trim Packs and Planter Bottoms

Raised bed planters of all shapes and sizes are now available with **optional trim packs** for a more finished look and added durability. The trim pack consists of 4-inch wide top rails that attach to the top of the planter and provide a convenient place to sit and rest tools while working in the garden. Also included are a set of **side and corner trim** pieces that fasten over the lap joints to increase stability and help protect against moisture.

Top rails can also be purchased separately as a stand-alone option. When assembled, the top rail adds one inch to the height and three inches to the outside dimensions of the planter.

For gardens on rooftops, decks, and patios, new **planter bottoms** are also available. Planter bottoms are made of evenly spaced slats on supportive struts that raise the planter one inch off the ground, providing **excellent drainage** on non-absorbant surfaces like compacted dirt or concrete. They are made from the same long-lasting cedar as our original raised beds and come **pre-assembled** for easy installation.



2'x6'x11" Raised Bed with Trim Pack and Bottom. Ideal for gardening on rooftops, decks and patios.

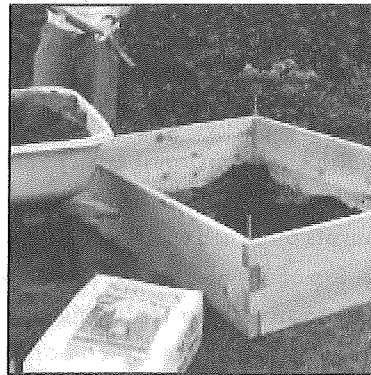
Sometimes, Simple is Better

Unlike most raised beds, the simple design of our kits allows wood to shrink and swell for **improved durability** in wet conditions. Hardware, such as screws and nails, eventually loosens as wood ages, but our kits assemble with rust-free metal pins set securely through the ends of each board. So after years of exposure, the **bed won't fall apart**, and yet can be disassembled by hand if needed.

In addition to being strong and easy to assemble, the pin design allows for some helpful growing options. You can fit flexible piping over the extended corner pins to provide easy support for cold frame or shade cloth covering. Attach piping over pins on the north side of the bed and tie **string for climbing plants**, such as beans and vine tomatoes. Raised beds come with extra long pins for exactly this purpose. If not needed, simply stake the pins into the ground to set flush with the top of the planter.

- **Tool-free assembly** - Raised beds assemble in minutes with no tools required and disassemble just as easily.
- **Superior strength** - No hardware, screws, or nails to loosen with wood shrinkage and swelling.
- **Rot-resistant wood** - Naturally durable Port-Orford cedar will outlast most lumber found in stores, even left unfinished.
- **Greenhouse ready** - Flexible piping over pins provides support for a coldframe to protect plants and extend the growing season.
- **Satisfaction guaranteed** - If you're not satisfied for any reason, just return the item within 30 days for a full refund.

Prices, Sizes, & Free Delivery!



Winner of Organic Gardening Magazine 2009 Editors' Choice Award.

"This item is ingenious; I have rarely been so satisfied with a purchase."

"Great product, fast shipping, excellent communication. Thank you!"

"Searched hi & low—by far the best item at best price! Love it!"


2009
EDITORS
CHOICE
ORGANIC

To help you choose the right size planter, we offer a [size comparison chart](#) in addition to detailed [price tables](#) with models, sizes, and soil capacities. Looking for something specific? Give us call for pricing on [custom sized beds](#).

FREE SHIPPING is by FedEx Ground to the contiguous United States only. Please call for more options. Most items ship in 3-5 business days following receipt of payment. Discounts are available for local delivery.

Visa/Mastercard, Discover, PayPal, checks, and money orders are accepted.

If you have any questions, please take a look at our [Raised Bed FAQ](#), or call **(503) 802-9292**—or just [send us an email](#).

Thanks for supporting our family and worker-owned business. Happy gardening!

ORGANIC
GARDENING

VISA



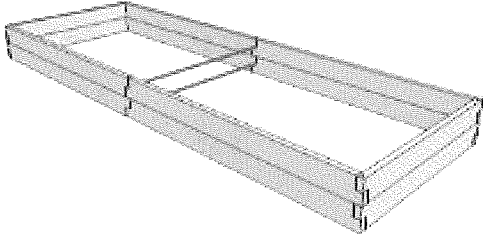
MasterCard

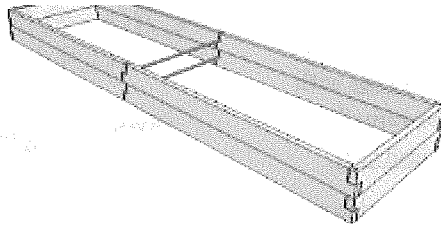
PayPal

To order, call (503) 802-9292
8AM-6PM, 7-days a week.

Have questions? See our
[Raised Bed FAQ](#).

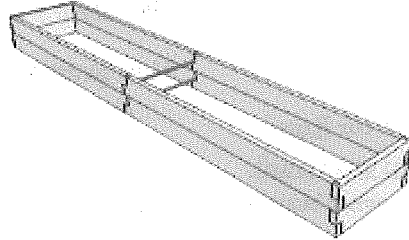
*Raised beds 2'-12' long in six height options. See complete price list for more bed sizes.
Economy-grade raised beds are available for up to 15% off regular prices.*

Raised Beds (11" Height Pictured)	Height Options	Cubic Yards	Price Each
 <p>4'x12'x11" \$345</p>	5.5"	0.67	\$175
	11"	1.48	\$345
	16.5"	2.30	\$510
	22"	3.11	\$670
	27.5"	3.93	\$835
	33"	4.74	\$995



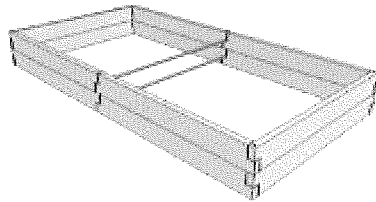
3'x12'x11" \$325

11"	1.11	\$325
16.5"	1.72	\$475
22"	2.33	\$630
27.5"	2.94	\$785
33"	3.56	\$935
5.5"	0.33	\$155



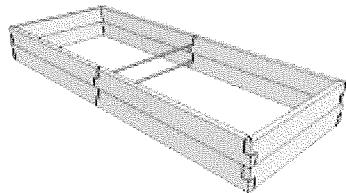
2'x12'x11" \$305

11"	0.74	\$305
16.5"	1.15	\$445
22"	1.56	\$590
27.5"	1.96	\$730
33"	2.37	\$875
5.5"	0.44	\$135



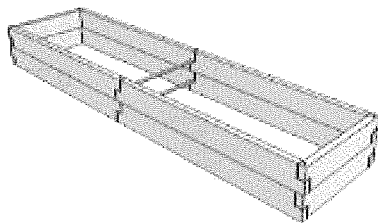
4'x8'x11" \$265

11"	0.99	\$265
16.5"	1.53	\$390
22"	2.07	\$510
27.5"	2.62	\$630
33"	3.16	\$755
5.5"	0.33	\$125

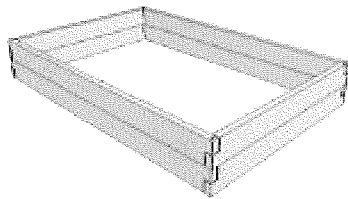


3'x8'x11" \$245

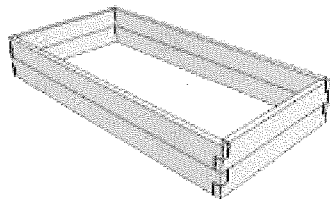
11"	0.74	\$245
16.5"	1.15	\$355
22"	1.56	\$470
27.5"	1.96	\$580
33"	2.37	\$695



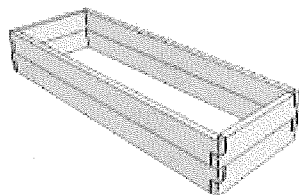
2'x8'x11" \$220



4'x6'x11" \$210



3'x6'x11" \$190



2'x6'x11" \$170

5.5" 0.22 \$115

11" 0.49 \$220

16.5" 0.77 \$325

22" 1.04 \$425

27.5" 1.31 \$530

33" 1.58 \$630

5.5" 0.33 \$110

11" 0.74 \$210

16.5" 1.15 \$310

22" 1.56 \$415

27.5" 1.96 \$515

33" 2.37 \$615

5.5" 0.19 \$100

11" 0.42 \$190

16.5" 0.66 \$280

22" 0.89 \$375

27.5" 1.13 \$465

33" 1.36 \$555

5.5" 0.17 \$90

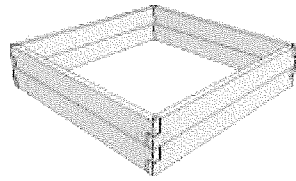
11" 0.37 \$170

16.5" 0.57 \$255

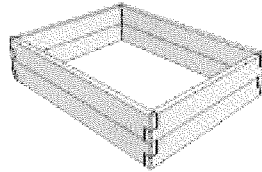
22" 0.78 \$335

27.5" 0.98 \$415

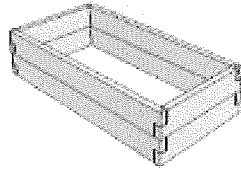
33" 1.19 \$495



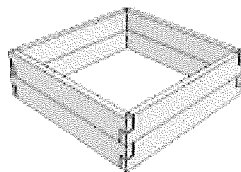
4'x4'x11" \$170



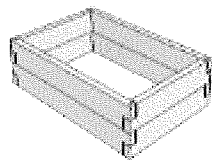
3'x4'x11" \$150



2'x4'x11" \$130



3'x3'x11" \$130



2'x3'x11" \$110

5.5" 0.22 \$90

11" 0.49 \$170

16.5" 0.77 \$250

22" 1.04 \$330

27.5" 1.31 \$415

33" 1.58 \$495

5.5" 0.17 \$80

11" 0.37 \$150

16.5" 0.57 \$220

22" 0.78 \$295

27.5" 0.98 \$365

33" 1.19 \$435

5.5" 0.11 \$70

11" 0.25 \$130

16.5" 0.38 \$190

22" 0.52 \$250

27.5" 0.65 \$315

33" 0.79 \$375

5.5" 0.13 \$70

11" 0.28 \$130

16.5" 0.43 \$190

22" 0.58 \$255

27.5" 0.74 \$315

33" 0.89 \$375

5.5" 0.08 \$60

11" 0.19 \$110

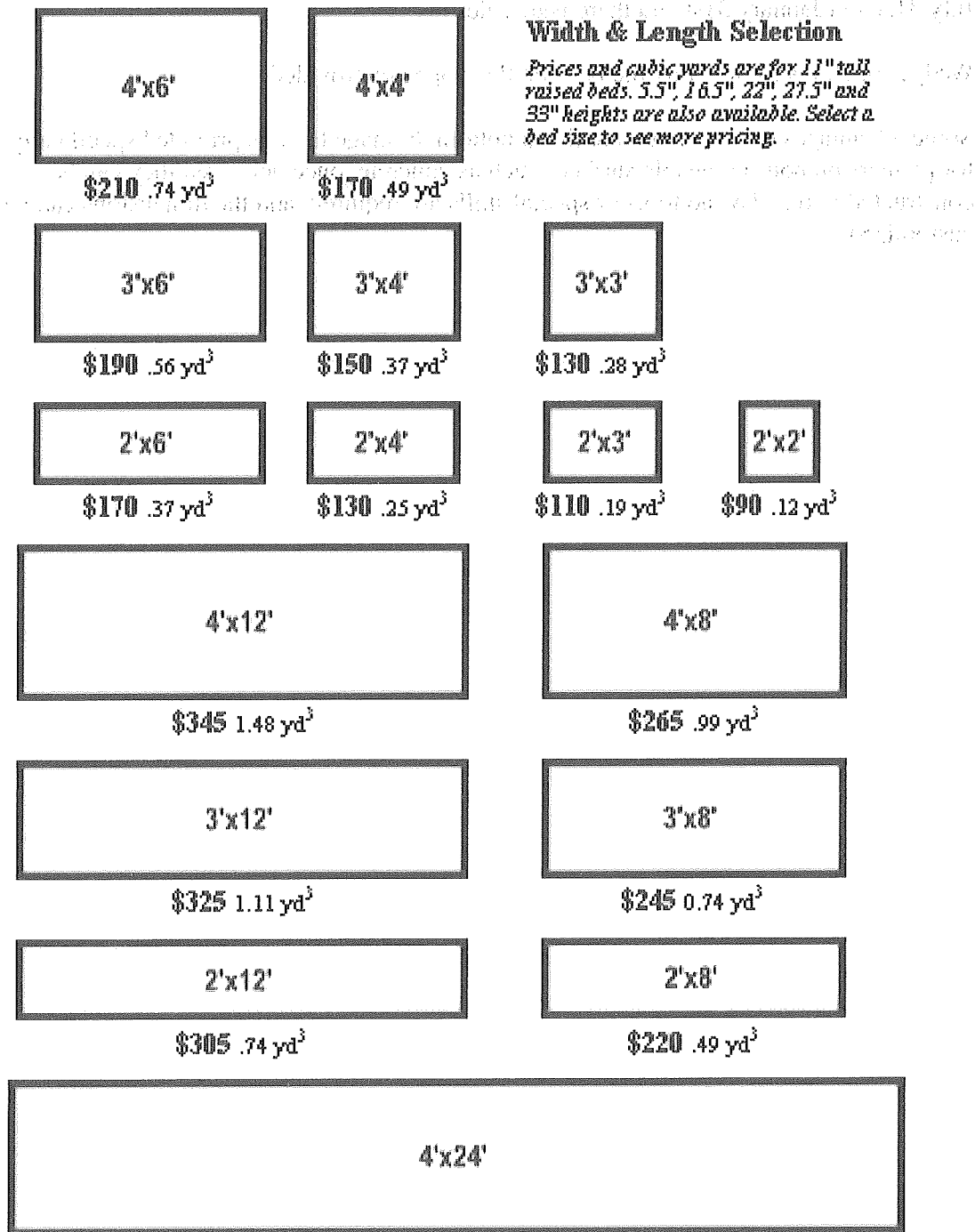
16.5" 0.29 \$160

22" 0.39 \$215

27.5" 0.49 \$265

33" 0.59 \$315

Size Comparison Chart



Below is a price estimate from a UW engineering student's project. This estimate could be reduced by ~15% by purchasing the economy lumber. The prices are lowest between July 31st and January 31st and there is no sales tax.

Wedges or shims for leveling the beds on the slope are provided.

Some advantages of this option are that a bottom drainage layer is provided specifically for planters on non-permeable surfaces such as concrete, once delivered they can be constructed in one day, no tools or special skills are required, and the dimensions can be customized.

Estimate

November 11, 2010

Naturalyards

PO Box 3180
Astland, OR 97520
Phone: (541) 400-0030
Email: info@naturalyards.com

875541



Bill To:

Carter Franz
None
Madison, WI
Phone:
Email: carterfranz@gmail.com

Ship To:

Carter Franz
None
Madison, WI
Contact: Carter Franz

Seller	Payment Terms	FOB Point	Shipping Terms	Ship Via	Req. Ship Date
cturns	COD	Origin	Prepaid & Billed	U.S. FedEx Ground	11/11/10

Item #	Type	Item / Description	Unit Price	Qty Ordered	Extended Price
1	Misc.	3' x 16' x 22" RAISED PLANTERS WITH BOTTOMS INCENSE CEDAR TREATED WITH INTERNAL WOOD STABILIZER.	\$ 848.00	177 ea	\$ 150,096.00
2	Discount	Special Discount 30%	-\$ 45,029.80	1 ea	-\$ 45,029.80

Approval: _____ Date: _____

SubTotal	\$ 105,067.20
Sales Tax	\$ 0.00
TOTAL	\$ 105,067.20



Elevated Cedar Raised Bed

Place Your Order Here

Order with
EASY PAY
0% interest

[Click here](#) to learn more.

Elevated Cedar Raised Bed - Item #39-388

\$299.00

Qty.

Use **Easy Pay** (8 installments of \$37.38 ea.)

[E-mail to a Friend](#)



[Add to Shopping Basket](#)

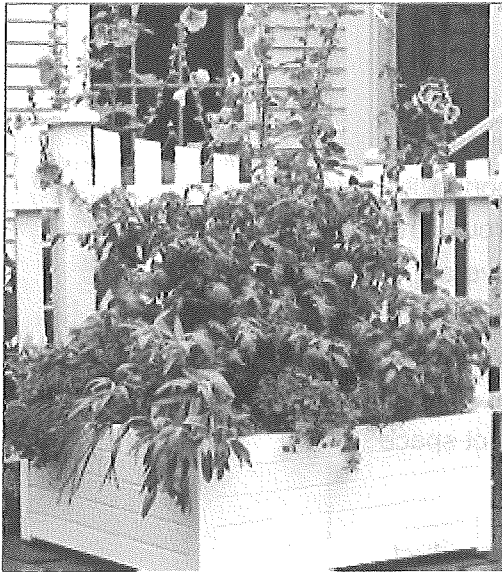
Easy-to-Tend Raised Garden is Handsome and Versatile

Bring your garden up to a whole new level! Our elevated bed is easy to plant, tend and harvest without kneeling or bending. Plus, it offers creative landscaping opportunities. Set up one or more of these rectangular beds around the edge of your patio to add privacy, or arrange several along a perimeter to create a garden "room". Like our other cedar raised beds, the sides are held in place with our sleek and sturdy aluminum corners. There's a false floor set 10" down from the top so there's plenty of root space for vegetables and flowers.

Please note: This popular Vermont-made product is currently on backorder and is expected to ship in approximately four weeks.

- Cedar is naturally rot-resistant
- Aluminum corners have an attractive copper finish and won't rust
- Complements our other cedar raised beds
- Vents allow air to circulate and excess moisture to evaporate
- Marine-grade plywood false floor has drainage holes
- This oversize item has a \$10 additional shipping charge each

http://www.gardeners.com/Elevated-Cedar-Raised-Bed/VegetableGardening_RaisedBeds,39-388,default.cp.html



Self-Watering Raised Beds

Place Your Order Here

Self-Watering Raised Bed, Bronze - Item #38-978
\$169.00

Qty.

Self-Watering Raised Bed, White - Item #34-004
\$169.00

Qty.

Self-Watering Raised Bed, Loden - Item #39-331
\$169.00

Qty.

Made of dense UV-stabilized polypropylene (crack-proof, fade-proof)

39-1/4" x 39-1/4" x 18-1/2" H

Two 4-gallon reservoirs (water gauge tells you when to refill)

Easy assembly

http://www.gardeners.com/Self-Watering-Raised-Beds/VegetableGardening_RaisedBeds,17403,default,cp.html

This is my statement:

As a professional in the green roofing industry for nearly a decade and one of the people who placed together the budget numbers together for M.A. Mortenson and City Officials the price of \$40/S.F. can be reduced substantially without compromising the integrity of the project. In past agricultural green roofing projects that I have either witnessed or been involved with I have seen pricing from just under \$20 S.F. for basic agricultural green roofs to about \$50 S.F., with the \$50 price tag having the look of a park on a roof. Generally most of them are within the \$25-\$32.50 range. As an example of a green roof that I designed and installed in Madison, The Madison Children's Museum Intensive Green Roof's price tag was about \$31/S.F.. This roof has a water feature, green wall, retaining walls, a chicken coop, wood decking, etc. albeit not a complete agricultural roof it does have that component and is much more complex than the preliminary Library designs. The reason that they were able to attain that price was that the design was approached cost consciously. In the renditions that I have seen of the Library green roof, I have seen that there are *many value engineering opportunities* that would be able to lower the budgeted price to that \$25-\$32.50 range. I would recommend that if the City is interested in moving forward with this project that they should take another look at the numbers. If this is the case, we would be happy to assist you in anyway possible.

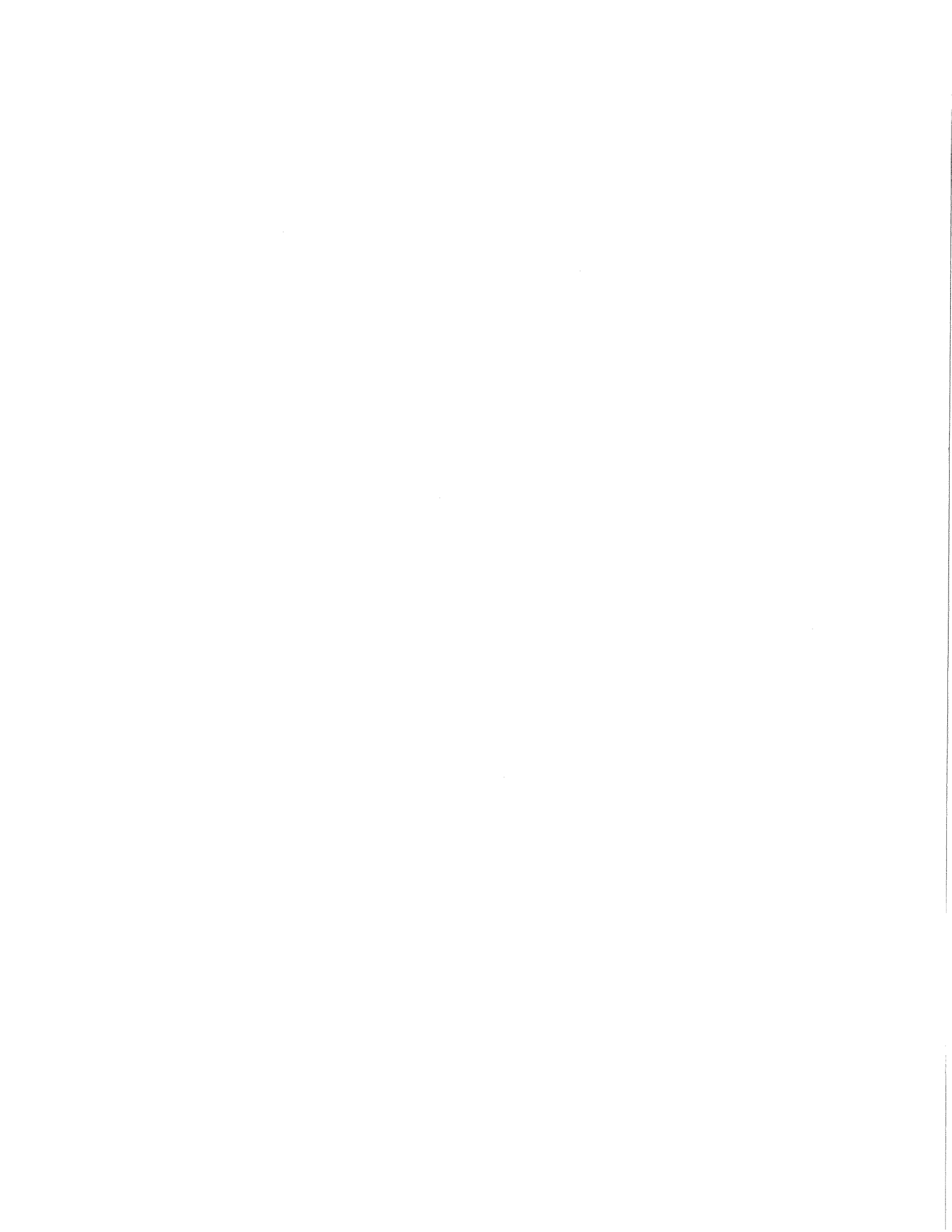
I would like to thank Danna for passing on my message in my absence, I have family obligations tonight.

Kind regards,

Anthony Mayer, LEED AP, GRP

Hanging Gardens, LLC

Wisconsin Green Building Alliance Board of Directors



BARBARA VEDDER STATEMENT

To Madison Common Council, April 19, 2011.

My name is Barbara Vedder. I have represented District 2 on the Dane County Board of Supervisors since December 2005. I served on the Madison Common Council from 1995 to 2001. It was during that time that the Reynolds Community Garden was established downtown.

Reynolds was unique as the first community garden downtown. The road to establishing it was a long and complex one. Because most housing downtown was apartment buildings or multi-unit condos without any space for gardening, constituents from my district came up with the idea of using vacant space downtown for community gardens.

Both the Community Gardens Committee, and the policy of retaining, preserving and expanding community gardens in Madison, resulted from the movement to establish the Reynolds garden.

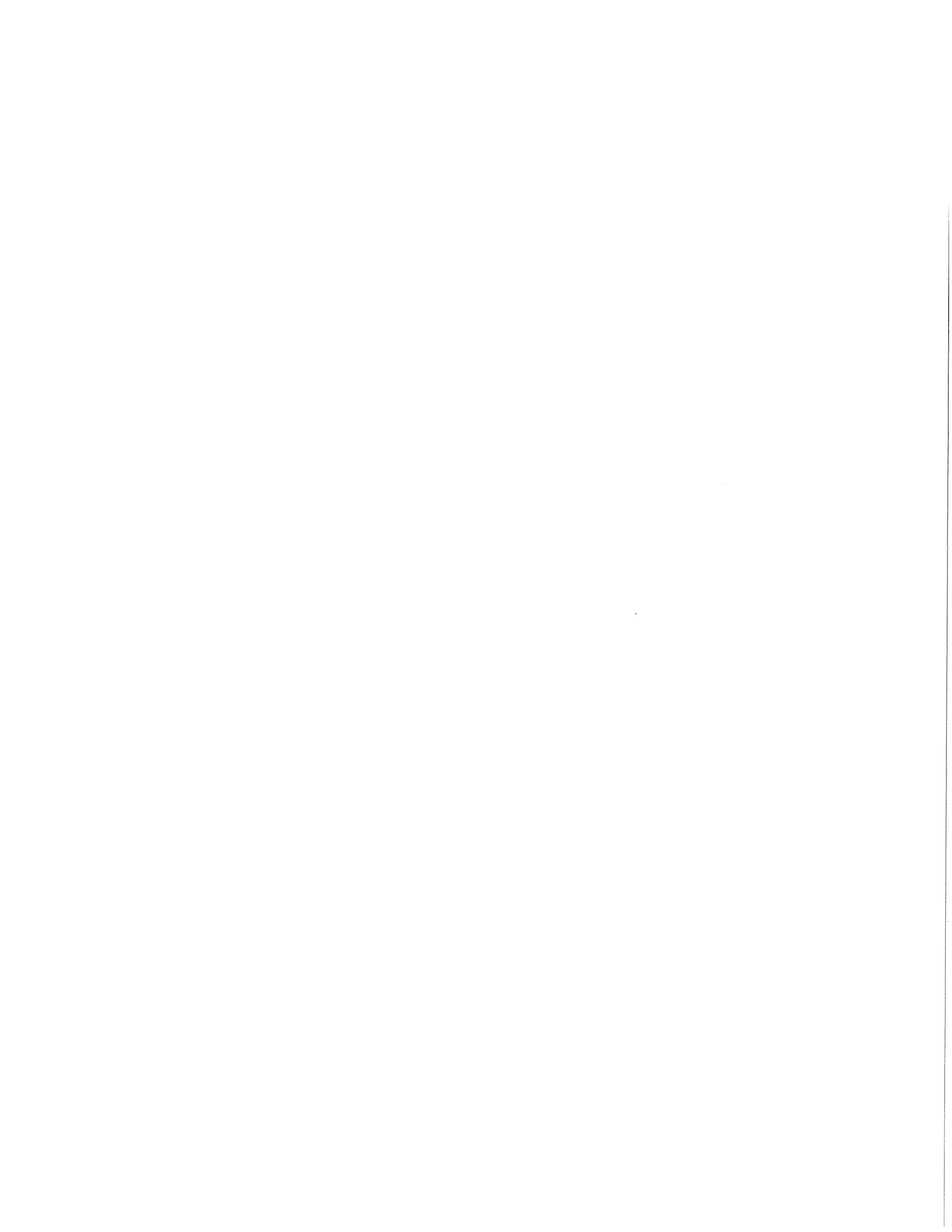
Many new community gardens have been developed in Madison since that time, but none are downtown. The intention of building more downtown community gardens, with the Reynolds garden only the first, has not been fulfilled.

When I heard about people trying to get a community garden on a rooftop downtown, I thought it was an incredible way to go forward with getting more community gardens established downtown, since ground-level vacant space is so rare and pricey.

In addition to all the wonderful grow-local, buy-local movements going on now, what better way of providing fresh local produce than with rooftop community gardens downtown.

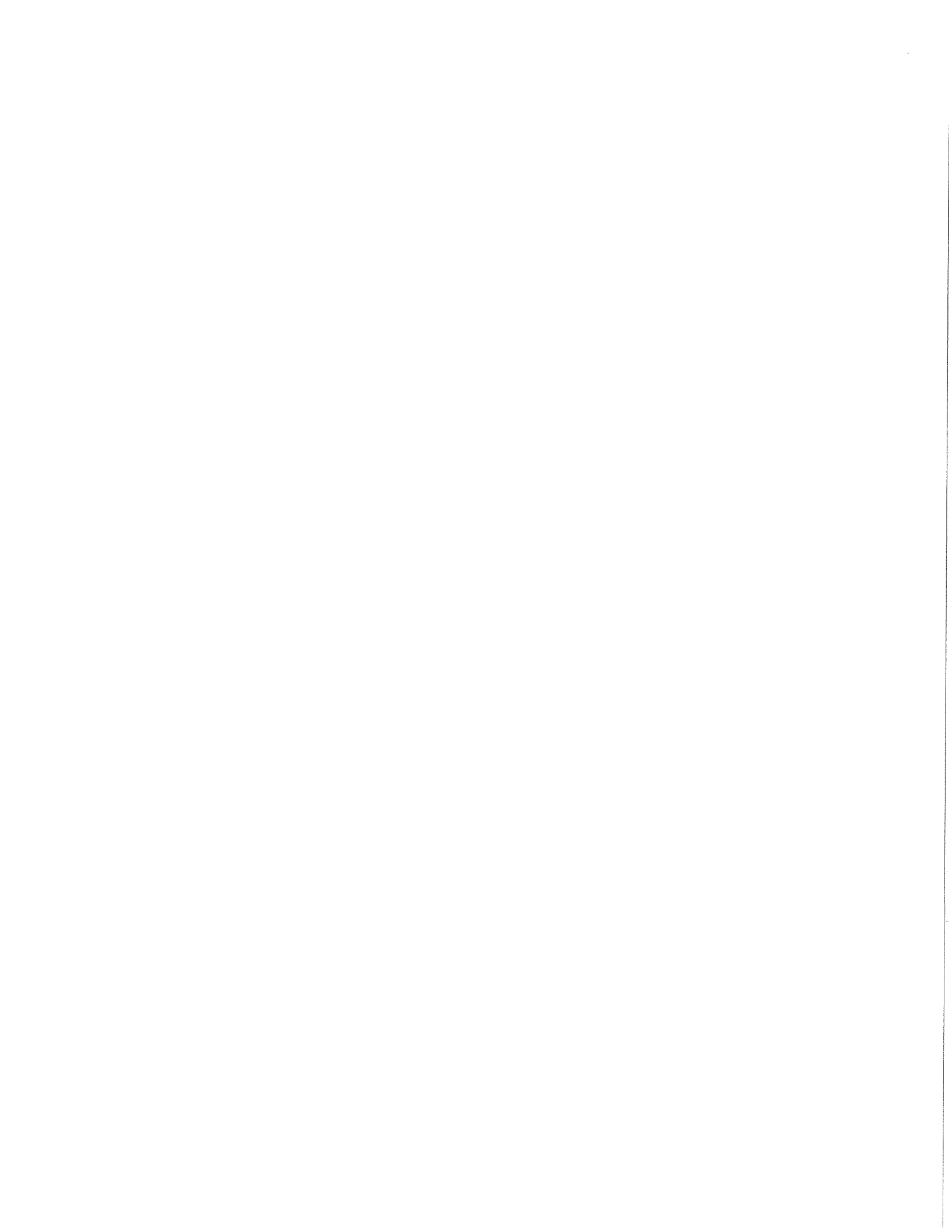
I have read over both the staff Feasibility Study, and the Downtown Community Gardens group's response. I think it would be unwise for the Council to accept the Feasibility Study in its current form, because it does not carefully explore the issues involved.

I think that Downtown Community Gardens group has brought out some very serious and important points that should be taken into consideration. One in particular being the seemingly over-the-top prices for various aspects of the rooftop garden, including the third elevator, and security costs. Second, instead of calling rooftop community gardens unfeasible, this is a good time to look at them as a challenge for the downtown.



It is time to seize the moment and take advantage of this unique opportunity to have something very innovative happen with community gardens downtown. We need to look to the future, and consider how daunting our economic situation is. We need to think pro-actively and find ways for the community to come together to meet mutual needs as well as supporting one another.

I urge the Council to take a close look at the Downtown Community Gardens group's report. It provides much useful information and framing of issues that will be helpful not only in reevaluating the library rooftop but in considering other potential downtown rooftop sites as well.



21380

Item 21
4-19-11

Testimony for April 19, 2011 Common Council Meeting

My name is Sue Rosa. I live at 3427 Viburnum Dr. I speak as a private citizen and as a member of the Downtown Community Gardens Group.

I am speaking in opposition to item 21 regarding the Green Roof Feasibility Study. I ask that you neither adopt nor accept the Study because I feel that it should not serve as a guide going forward with regard to the possibility of a community garden on the roof of the central public library or anywhere else downtown.

The Feasibility Study recommends against a rooftop community garden on the new library at this time because it costs too much, library administrators don't want it, and ground-level sites in city parks offer a less expensive and thus better solution.

We fully realize that a rooftop community garden is not going to happen in the immediate future of the central library. That's been clear for a long time. But that doesn't mean that it isn't a good idea or that it shouldn't or won't happen at some point in the future.

The new library has been designed to serve this community for 100 years. Administrations will change. In time, more money will become available as city leaders come to appreciate the importance of urban agriculture in addressing issues of food security and food sovereignty. Madison spends money on what it feels is important. It is simply a matter of priorities. Someday our priorities will include community gardens.

This is not just about a community garden on the roof of the new library. This is about more community gardens downtown---within reasonable walking or biking distance for people living downtown.

The study suggests that putting community gardens in existing parks downtown may be part of the solution. This may be true, but it is not without problems. Some of this land is contaminated. Current park users are likely to resist having this precious space taken away from them for use by gardeners. And there are those who feel that taking existing green space for another green purpose at the expense of creating more green space is not the way to go, a sentiment that our group shares

Downtown is unique with special challenges. Land is very expensive. And, as already pointed out, is likely to be contaminated. Rooftops offer a good alternative. And because the idea of putting community gardens on rooftops is new, creative solutions will be needed. Existing codes will need to be revisited.

This study does not give adequate attention to these issues. In deed, the study's conclusions seem to argue against the idea of rooftop food-producing gardens on public buildings for use by citizens because, the report claims, they are too expensive to create and manage. This is not the message we want to convey going forward. Rooftop food-producing gardens are not new; they are thriving and growing all over the world. Madison is behind the curve on this one. Let us not let the Green Roof Feasibility Study be the latest word on the subject.

Thank you.

