

CASE STUDY

Harvest Green Agricultural Amenities from conception to realization



AGMENITY
cultivating community

Contents



This document is intended as a resource for the development of farm centered communities and their agricultural amenities. As much of the information herein is confidential, the authors request that this model not be shared with outside parties.

Introduction

Agmenity
Context

Physical

Location
Harvest Green
Agricultural Components
Village Farm
Edible Landscaping

Organizational

Development
Ownership
Agricultural Consulting
Third Party Service Contract
Staffing
CAM Vs Agriculture

Programming

Farm Access
Farm Fun Days
Farm Club
Events
Farmers Market
Tours
Associated Clubs
Super Volunteers
Communication
Production Ag

Financial

Consulting Budget
Development Budget
Operating Budget

Summary

Press

Introduction



A

Agmenity

Agmenity is a group of passionate food growing professionals who are interested in seeing agriculture change the way we relate to our neighbors. Based in Houston, Texas, Agmenity is a member of the Edible Group, a suite of small businesses involved in the production and consumption of fresh, sustainable foods. Agmenity designs, develops and manages agricultural amenities for institutions, businesses, developers and homeowners' associations. We believe that by bringing neighbors together to encounter agriculture that we can truly cultivate community.

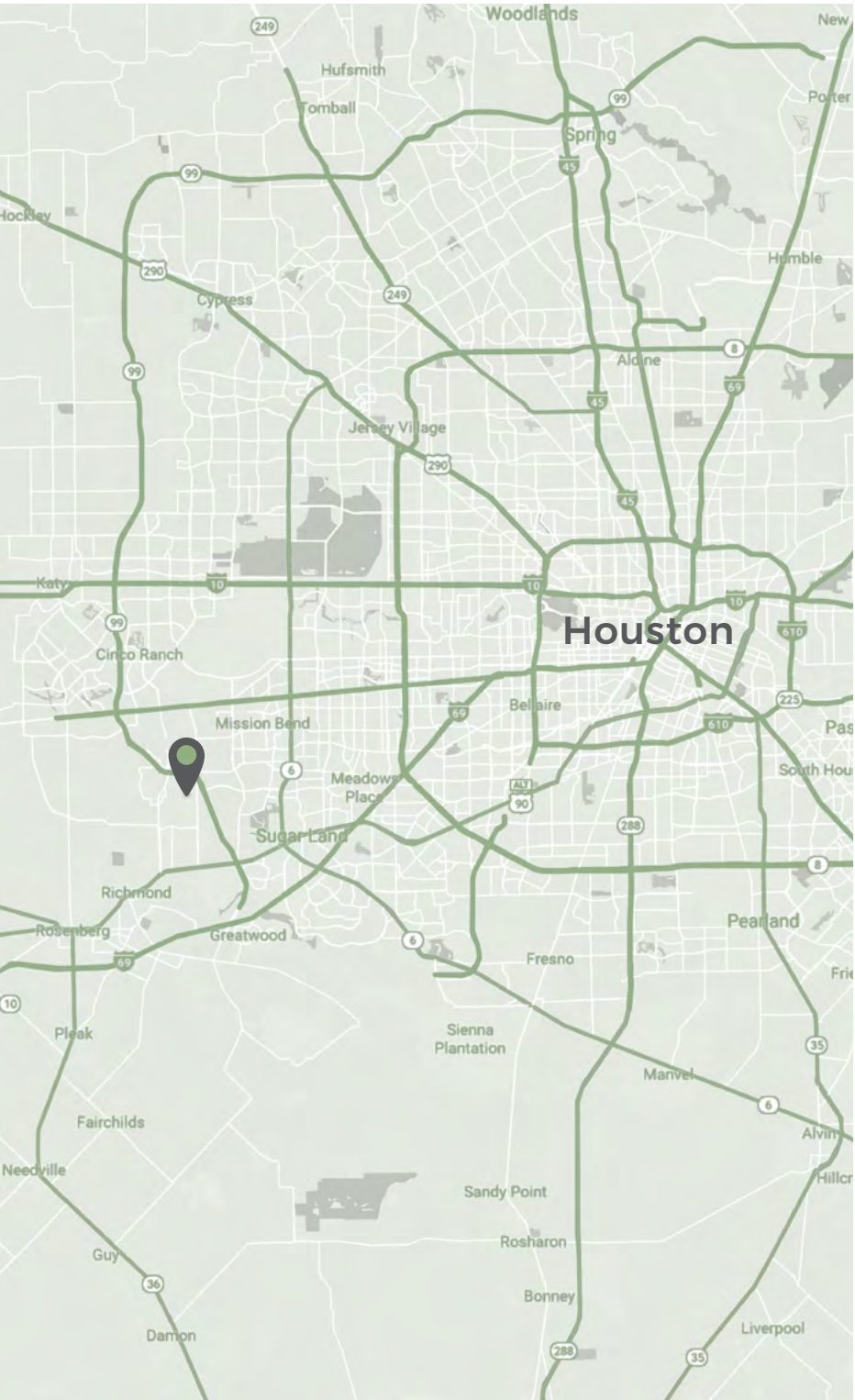
Our expertise with business-to-business relationships provides a single point of contact for the planning, management and accountability of operating an agricultural amenity. Not only can we help you dream it, but we can design, budget, construct, and operate your agricultural amenity to meet your desired objectives.

B

Context

The authors must first recognize that this is not the paving of a novel path and that there are larger movements of thoughtful, sustainable site and community design that have been pioneered and championed by others. Our hope is to continue to foster the growth of this movement and the wonderful communities that it strives to create. We would also be remiss not to acknowledge that it would be impossible to take on a project like this without as forward-thinking and patient of a developer as Johnson Development Corp.

Physical



A

Location

Harvest Green is a Master Planned Community by Johnson Development Corp in the Greater Houston metro area. Located directly between Katy and Sugar Land in Richmond, Texas, the community offers easy access to employment centers and business districts throughout the region.

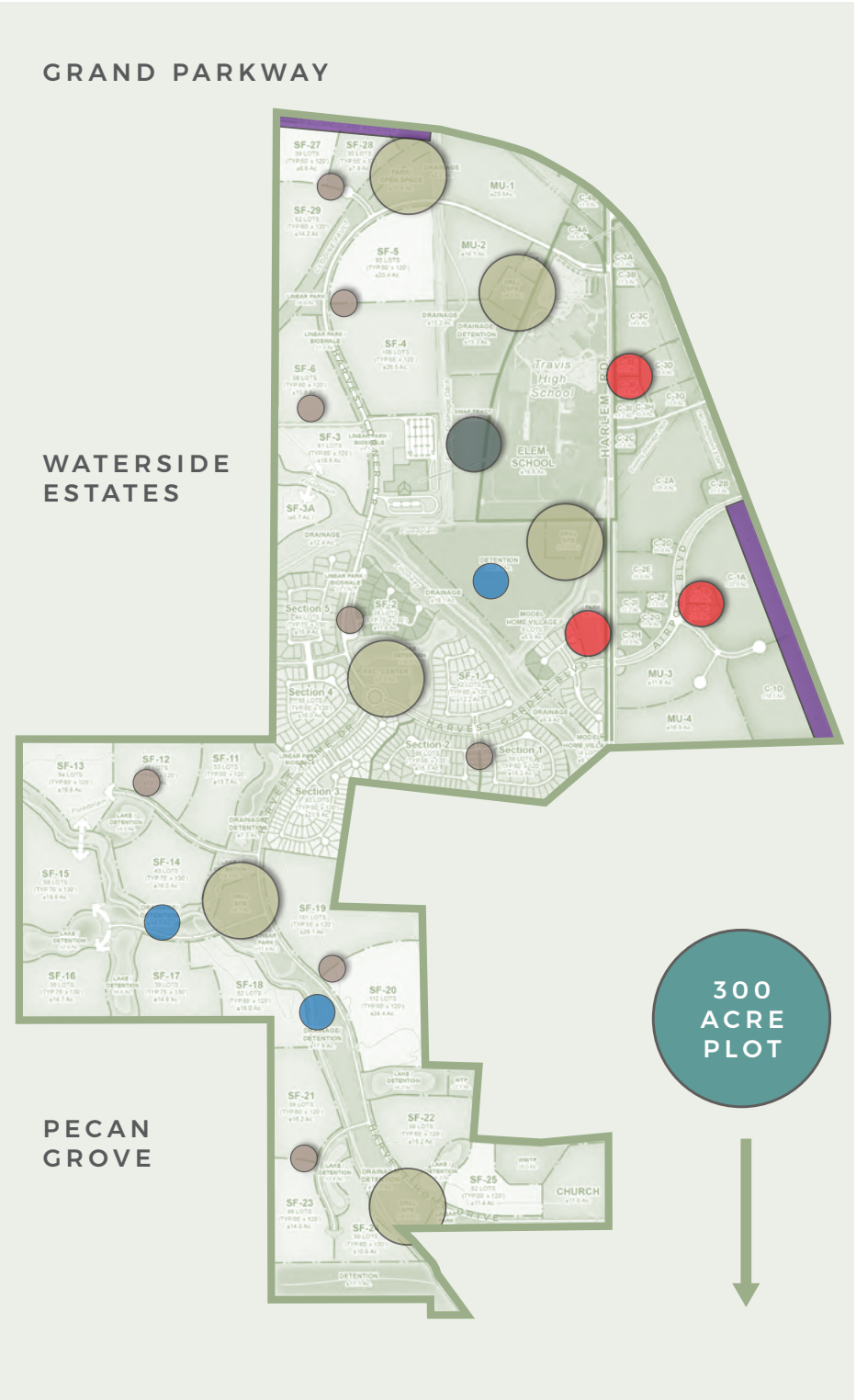
A significant part of the desire to incorporate agriculture into Harvest Green was the fact that the property had been almost continuously farmed since the 1820’s. A wide range of crops such as cotton, sugar cane, vegetables, sorghum and corn created a rich and diverse agricultural heritage that the developer wished to honor.

B

Harvest Green

Houston’s first farm-centric community, the 1,300-acre Harvest Green is located in Richmond along the Grand Parkway and minutes from Sugar Land and Katy. Residents enjoy numerous monthly events planned by an on-site lifestyle director; many of these events are centered on a healthy lifestyle and feature produce from farms found in the development. Homes are priced from the \$240,000s.

- Planned for more than 2,600 (1800 freestanding) residential units and 200,000-plus square feet of commercial/retail space
- Array of on-site, farm centric amenities, including a working farm, vineyards, greenhouse, chicken coop, goat pen, education classes, farm tours, farmers market, CSA program and a proposed farm-to-table restaurant
- More than 300 acres of lakes, parkland and green space and 17-plus miles of trail systems
- The Farmhouse amenity center includes a pool, fitness center, community rooms, event lawn, lakeside amphitheater and splash pad
- Weekly farmers market open on-site
- Innovative Farm Club allows residents to lease plots on the Village Farm to grow their own produce
- Listed as one of the nation’s 50 best-selling communities in 2017
- Homes start in the \$240,000s with a median price of \$363,000



C

Agricultural Components

In planning the community, great emphasis was placed on incorporating agriculture in multiple formats throughout the neighborhood. The developer wished to fully embrace Harvest Green being an agriculture-centered community rather than limiting the scope of agriculture to a forgotten corner, or a single showcase location. The components on the following slides all play a critical role in the immersive agricultural experience that Harvest Green residents enjoy.

The wide range of agricultural components throughout the community allow for all residents to interact in food production in the way that best fits their family.

In locating the components, the following characteristics were considered:

- Proximity to residences
- Proximity to other amenities
- Street visibility
- Non-Developable Land (floodplain, fault line, etc)

Key

Neighborhood Garden	
Community Garden	
Regional Farm	
School Farm	
Commercial Garden	
Cash Crops	
Aquatic Garden	



D

Village Farm

The Village Farm is the primary agricultural amenity within Harvest Green. It is located on both sides of the primary entrance to the residential section of the community and across the street from much of the planned commercial development. The Village Farm is composed of the following components:



Fig/Citrus Orchards

Featured at the farm entrances, our orchards include 20 fig and 50 citrus trees.



Educational Crop Fields

The western half of the primary crop area is split into four sections, each detailing a different cropping system for vegetables;

- 1. raised beds with permanent ground cloth
- 2. raised beds with plastic mulch
- 3. raised beds with vegetated furrows and
- 4. flat ground growing.



Overlook Berm

A 12' high hill was built adjacent to the farm, complete with grain bin themed gazebo at the crest. The berm overlooks the farm and allows for visitors to enjoy a breeze and a different perspective on the farm's agricultural systems.



Farm Club Plots

The eastern half of the primary crop area is reserved for members of Farm Club. Each club member has their own 20' x 20' plot (more on Farm Club in subsequent slides).



Food Forest/ EdibleTrail

Located just outside the farm fence, the food forest is a blend of low-maintenance edible perennials planted on either side of the walking trail that leads to the residential sections of the community.



Event Lawn

The bermuda grass event lawn is lined with sycamore trees and serves as a nice location for large scale events such as Chef Fest, as well as impromptu on-farm picnics, or reenactments of the tractor scene from Footloose (shot in nearby Beaumont).



Livestock

As the animals are one of the main attractions at the Village Farm, their housing was designed with human and animal safety in mind, while still allowing for meaningful interactions. The farm currently houses 20 laying hens of various breeds, 4 Nubian dairy does and a top bar European honey bee hive.

Physical

Village Farm, Con't



Post-Harvest Building

This 24' x 40' metal building houses dry storage, a small office, the walk-in cooler, and the wash line.



Compost

The on-farm compost bins are constructed of CMU and stucco and allow for a permanent place to cycle through farm wastes and provide a beneficial soil amendment.



Greenhouse

The 30' x 48' greenhouse, used to start transplants for the farm and Farm Club, is heated by a plumbed gas heater and has ventilation systems, full power and water hookups.



Restrooms

A park style restroom is being constructed adjacent to the farm parking lot to provide facilities for farm and farmers' market guests.



Parking Lot

The concrete farm parking lot has 40 spaces to accommodate all guests. Visitors must cross a bridge to enter the farm and this controlled access provides for the safety and security of the farm. The parking lot also functions as the site for our farmers' market.



Future Commercial

A 4 acre site has been reserved for a future agricultural commercial space. While the final use has not been determined, interest has been expressed in farm to table restaurants, brew pubs, wineries, etc.



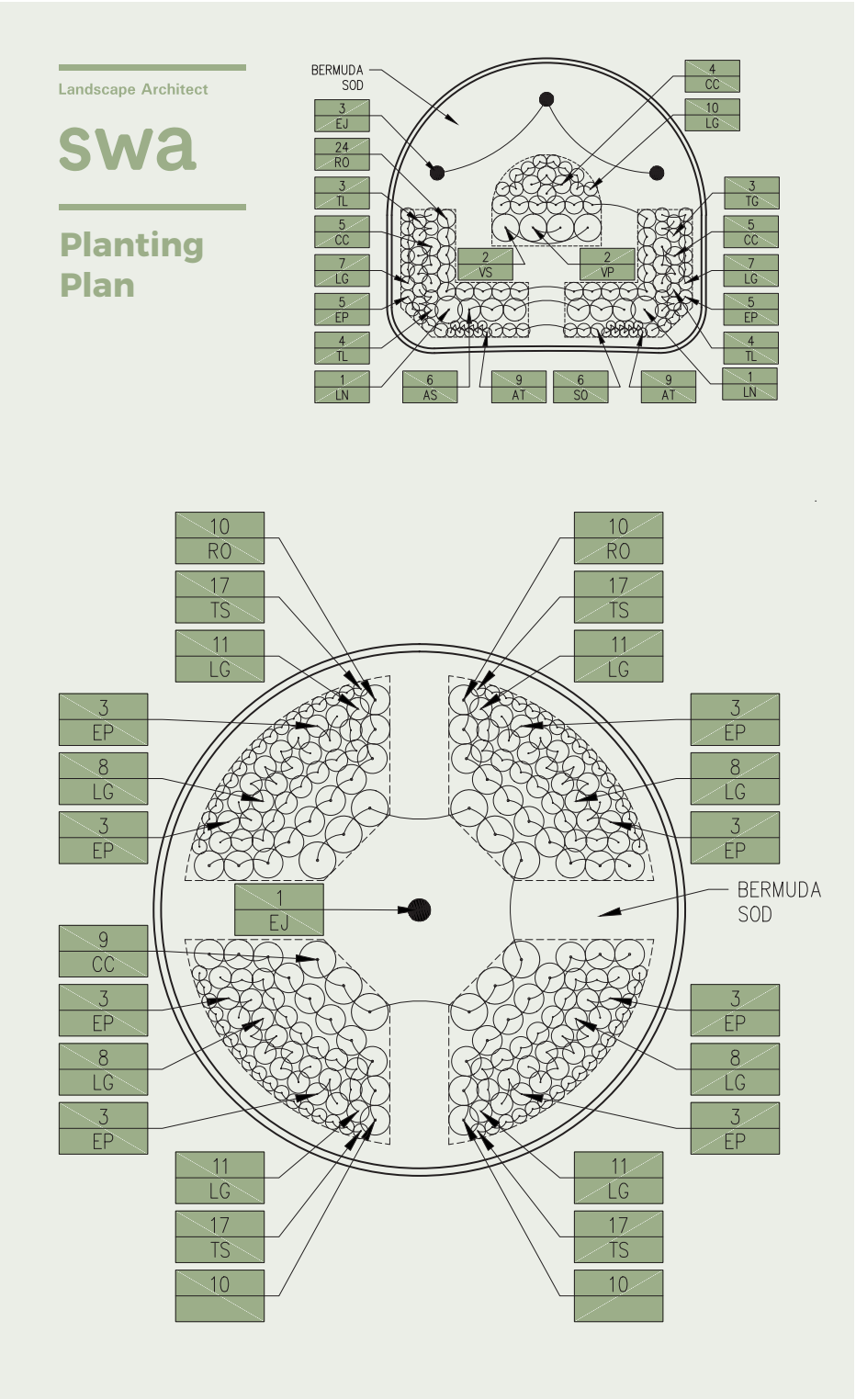
South Fields

Across the main entrance road from the Village Farms, and located in front of the model homes, is the South Fields which contain one acre of vegetables and one half of one acre of wine grapes.



Natural Playscape

Near the parking lot is a natural children's playscape including low climbing equipment, a horticultural maze, many natural play components and agriculturally inspired activity equipment.



E

Edible Landscaping

Throughout the community, portions of the landscape reserves have been planted with edibles. The following components serve to further the community’s interaction with agriculture:



Fruit Trees

Many traditional landscaping trees have been replaced with citrus, pomegranates, figs and loquats throughout the community.



Pocket Parks

These small, local parks have fruit bushes such as blueberry and pineapple guava, as well as fruit trees and perennial herbs.



Cul-de-sac Kitchen Gardens

Many cul-de-sacs in the neighborhood have been planted with perennial herbs and a fruit tree. These gardens serve as small, local kitchen gardens for those who live on the street to use.



Backyard Gardens

Residents have the option at the purchase of their home to add raised bed vegetable gardens as an upgrade.

Organization



A

Development

The leadership at Johnson Development Corp first encountered the concept of agriculture-centered communities at an Urban Land Institute forum, at a presentation by leading agriculture expert, Daron Joffe of Farmer D Consulting. With Farmer D on board as a consultant, JDC senior leadership championed the idea and determined that their new community, Harvest Green (which was unnamed at the time), would be a perfect fit to test the concept. Fortunately for Johnson Development, there were two SWA Group landscape architects, Jake Salzman and Matt Baumgarten, who had experience in agriculture and a strong desire to incorporate it into development.



Edible Earth Resources

Our edible landscaping firm, Edible Earth Resources (now member of The Edible Group), was engaged as edible landscape consultant for the project through our relationship with the aforementioned landscape architect.



Agmenity

Agmenity, another member of The Edible Group, was formed as a firm to serve the Harvest Green project as consultants, designers, installers and managers of the agricultural components within the neighborhood. Agmenity’s scope has since grown to offer agricultural consulting and agricultural amenity management nationwide.



Loam Agronomics

Originally included in the Harvest Green project, there was a 288 acre parcel of undesirable land from which the developer wanted to realize some value. Loam Agronomics (also a member of The Edible Group) was formed as a separate entity to serve the greater community as a large scale CSA farm. Loam Agronomics purchased the parcel from the development and is a specially classified member of the Harvest Green Commercial Association.

Organization



A

Development, Con't

The agricultural components at Harvest Green have been viewed as amenities since their inception. The developer bears the cost of installing the components while the responsibility for their upkeep falls on the HOA and the Foundation with transfer fees as the primary long term support. We believe this viewpoint is critical to the long term success of agriculture-centered communities.

While the farm is still in the tail end of development, much of the development of the farm happened in the first 12 months. Weekly coordination meetings between landscape architect, development manager, construction manager and agricultural consultants were key to the successful design and installation of the agricultural amenities.

C

Agricultural Consulting

As agriculture centered communities are still a developing movement, it has not been uncommon for developers and landscape architects to design agricultural amenities without first securing an agricultural consultant. While well-intentioned, these amenities are often set up in agriculturally impractical ways (inefficient labor model, incorrect equipment, lack of clear goals, etc). At Harvest Green, Agmenity was brought into the design conversation early enough to ensure that agricultural amenities were set up in a manner that made sense for the long term success of the project.

B

Ownership

Two critical concepts for a community to contemplate when considering an agricultural amenity are ownership and business organization. Early discussions in the consulting phase at Harvest Green were centered around whether the Agricultural Amenities would be separate businesses, owned by the HOA and managed by others or owned and managed by the HOA.

While this discussion will likely end up in individually tailored solutions for each development, at Harvest Green it was decided that the best arrangement was for a third party services contractor to manage the farms, which are owned and funded by the developer/ HOA. This arrangement allows for the HOA to keep significant control, limit legal liability and plan and budget for success.

Initially, equipment ownership was exclusive to the HOA. However, upon reviewing the responsibilities and costs of ownership, equipment is now being transmitted to Agmenity and we believe this to be the best route for future projects as well.

Organization



D

Service Contract

Operating with a service contract allows the developer/HOA to bear the burden of startup costs while ensuring that the long term goals of the farm are aligned with the developer and services provider. As agricultural amenities are typically included in developments to function as a community based amenity rather than a for-profit business, contracts like these are the best route to ensure that the community receives the services desired while allowing for the agricultural services provider to pursue agricultural objectives. Just as a pool or fitness center has yearly maintenance and management costs, so do agricultural amenities. However, the beauty of incorporating a farm as an amenity is that if it is carefully planned and properly managed, the operations can be scaled to provide even greater value as the farm can return income from events and sales of produce.

E

Staffing

Staffing an agricultural amenity is a daunting task. Farming requires a wide range of specific skill sets, however it does not typically require the level of interpersonal skills that being a Farm Educator (as staff members at Agmenity are called) requires. Our staff must be able to: work hard in difficult weather, be personable with all residents, efficiently prioritize the myriad of required tasks, understand the needs of the developer, communicate effectively and continually with all stakeholders and forecast the weather (amongst many other skills).

When planning an agricultural amenity it is important to scale the operation to require at least one full time and one part time staff member. Farming alone is quite difficult, having two sets of eyes and hands involved greatly increases the chances of success.



F

Common Area Maintenance vs Agriculture

While it is easy to consider agricultural amenities similar to landscape reserves, they have specific requirements that require a different level of management. In fact, at Harvest Green, there are some agricultural amenities that are best managed in a method similar to a CAM contract, and others that require a much deeper level of management. For this reason Harvest Green has both agricultural management and CAM contracts for their agricultural amenities. Identifying whether or not an agricultural amenity will require a simple maintenance or more complex management contract is a conversation worth having during the physical design phase.

At Harvest Green, we designed the Village Farm as the space where complex interactions requiring a management contract would take place. Most organized group resident and public interactions take place in this clearly defined space with managed access and staff present. This is also the place where livestock and annual agricultural production are focused. These two components require a high level of management which requires a more complex contract.

All planned agricultural amenities outside of the Village Farm are managed under our Common Area Maintenance (CAM) contract. Currently, all fruit trees and cul-de-sac gardens are managed under this contract. The plants in these spaces require a level of care that most landscape contractors are not able to provide, and due to the fact that the produce will be consumed, safety issues are another great concern.

Programming



A

Farm Access

As Harvest Green Village Farm was designed not just as an amenity for residents, but as a space for the larger community to gather and experience agriculture, it was determined that the farm should be open and available as much as possible. While access is not tightly controlled, the farm is open to residents and the public from sunrise to sundown Thursday–Monday. Access is governed by physical, easily bypassed barriers, like simple chains and low fences. When the farm is closed it is for safety and liability issues, rather than to protect the farm from theft. While crime rates in our area are low, the Village Farm is located adjacent to a high school and we do expect a certain level of adolescent mischief. For this reason, our animal pens are securely locked and all equipment and tools are kept secured as well.

C

Farm Fun Days

One of the primary agricultural interaction points for residents are our Farm Fun Days. Held at least twice a month, these days are typically light and fun volunteering events. We plan them around seasonal workloads and use them to provide our staff with extra hands. We often send our volunteers home with some u-pick veggies and fruits for their labor. We try to plan these days at least a week in advance and promote them primarily through the resident email newsletter.

B

Farm Club

Harvest Green’s agricultural amenities were designed to provide many access points with varying levels of commitment. Farm Club, as the premier access point, has been designed to offer residents the deepest interaction with agriculture and our Farm Educators. Put most simply, Farm Club is a small scale paid agricultural learning program. Members pay \$50/month to have their own ~20’ x 20’ plot in the center of the Village Farm, surrounded by the farm’s larger scale fields. The price includes seeds, transplants, tool usage, organic fertilizers and occasional expert speakers.

Members spend widely varying amounts of time in their plots, but minimum standards must be kept or members may be removed. This has not yet been an issue but any time that community is brought together to work in the same space, a framework of guidelines helps set equal expectations for all members.

As was hoped, Farm Club members have begun to self-organize other member events and promotional “plot tours” hoping to attract more members. The club is a relatively new program at Harvest Green and is still in its “soft open.” Fall of 2018 will be the full launch with additional outreach and support. Currently there are 11 members in Farm Club, with room for another ~100 members.

Programming



D

Events

Events are another key interaction point for residents and the greater public. We believe that generally, people are looking for something or someone to connect to and agriculturally focused events are a deeply meaningful way to fill this need. Plus, who doesn't love tasty food and beer.

CHEF×FEST

The second annual Harvest Green Chef Fest attracted 12 of the most talented local chefs from across the state and brought them together in a celebration of local produce, proteins and alcohol. Over 600 attended this year's event with tickets starting at \$75. Live music, farm tours and feeding the goats were all secondary highlights to the quality culinary creations that our talented chefs put together. Over 250,000 marketing impressions were generated for the event (digital, print and street signs).

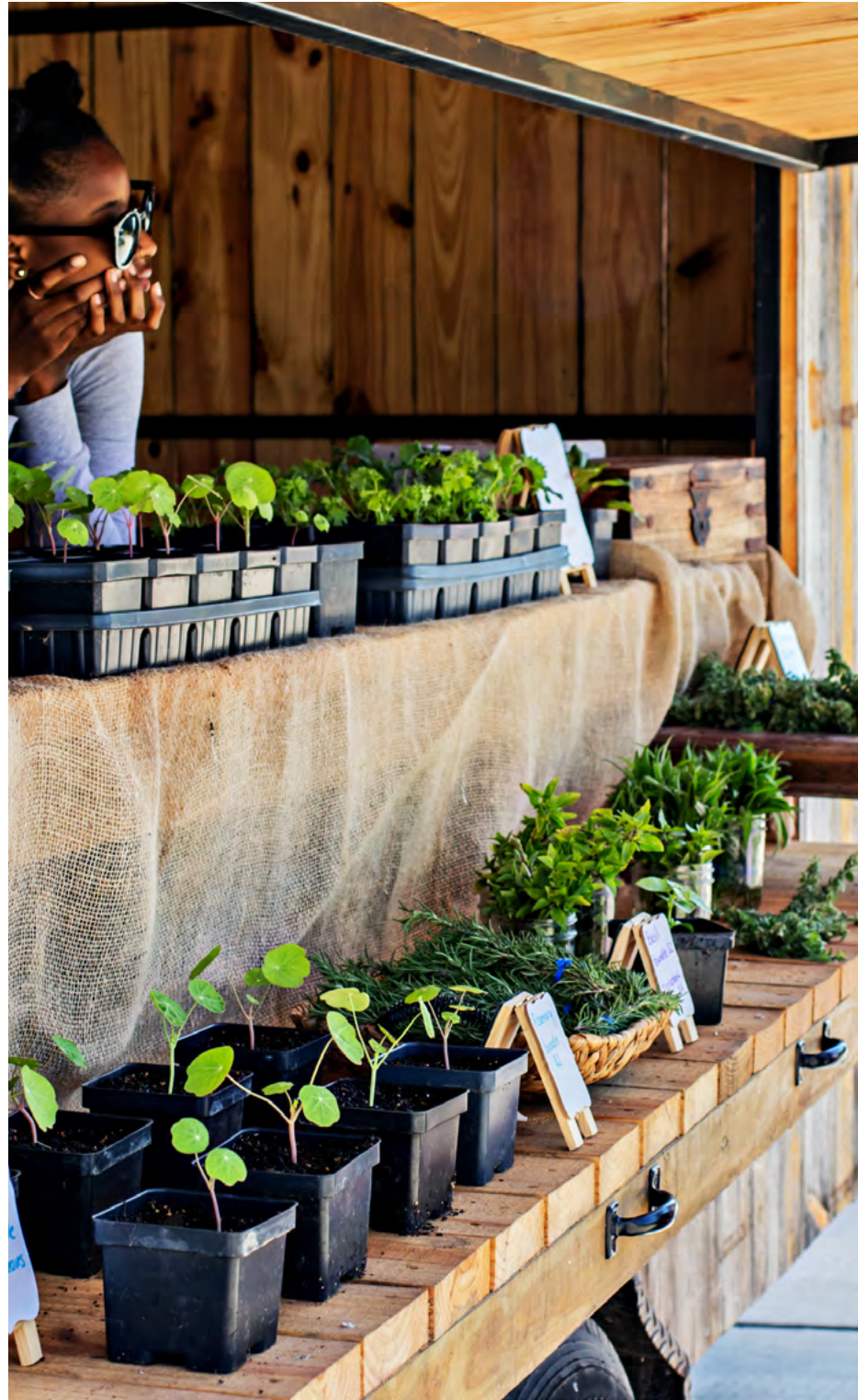
TOMATINA PADRE

La Tomatina Padre celebrates Fathers' Day and the famous La Tomatina festival of Buñol, Spain in an agricultural and unusual way by getting Harvest Green residents together to toss overripe tomatoes at their fathers. As our primary summer event, LTP is a small, quick event that is focused on the special bounty that summer tomatoes are, as well as the appreciation we have for the father figures in our lives.

Harvest FEST

Currently Harvest Fest, a neighborhood wide farm themed traditional Master Planed Community festival, is run by the marketing department at Johnson Development. Agmenity functions in a supporting role by providing a farmers' market, farm tours and livestock interaction. In the future, Harvest Fest will become a farm embedded event and will cater mostly to residents.

Programming



E

Farmers' Market

One of the most successful ways to take advantage of the marketing opportunities of Agricultural Amenities is through the development of a farmers' market. The country recently saw a marked increase in markets nationwide, however, the current trend seems to be a correction as the market retracts and weaker markets fail. Running a successful market takes commitment and resources. The Farmers' Market at Harvest Green was placed on hold due to county regulations that made it difficult for some market vendors to sell their products. Once the next infrastructure package is complete (including public restrooms) the market will reopen. The Farmers' Market at Harvest Green operates year-round as a producer only market with a strong focus on sustainability and food products.

G

Associated Clubs

Not only does Harvest Green Village Farm have its own Farm Club, but it also hosts other clubs as well. Compost Club and Pollinator Club are the first resident-only clubs to take advantage of the resource of the Village Farm. The farm provides space and other resources to the club, who makes sure to follow any guidelines set by farm staff, while still pursuing a resident focused agenda.

F

Tours

Visiting the farm is one of the most meaningful ways for residents and the public to experience agriculture. The Village Farm makes itself available to residents (upon request) and educational groups (schools, girl scout troops, seminar groups, etc) as a learning resource for tours and other educational opportunities.

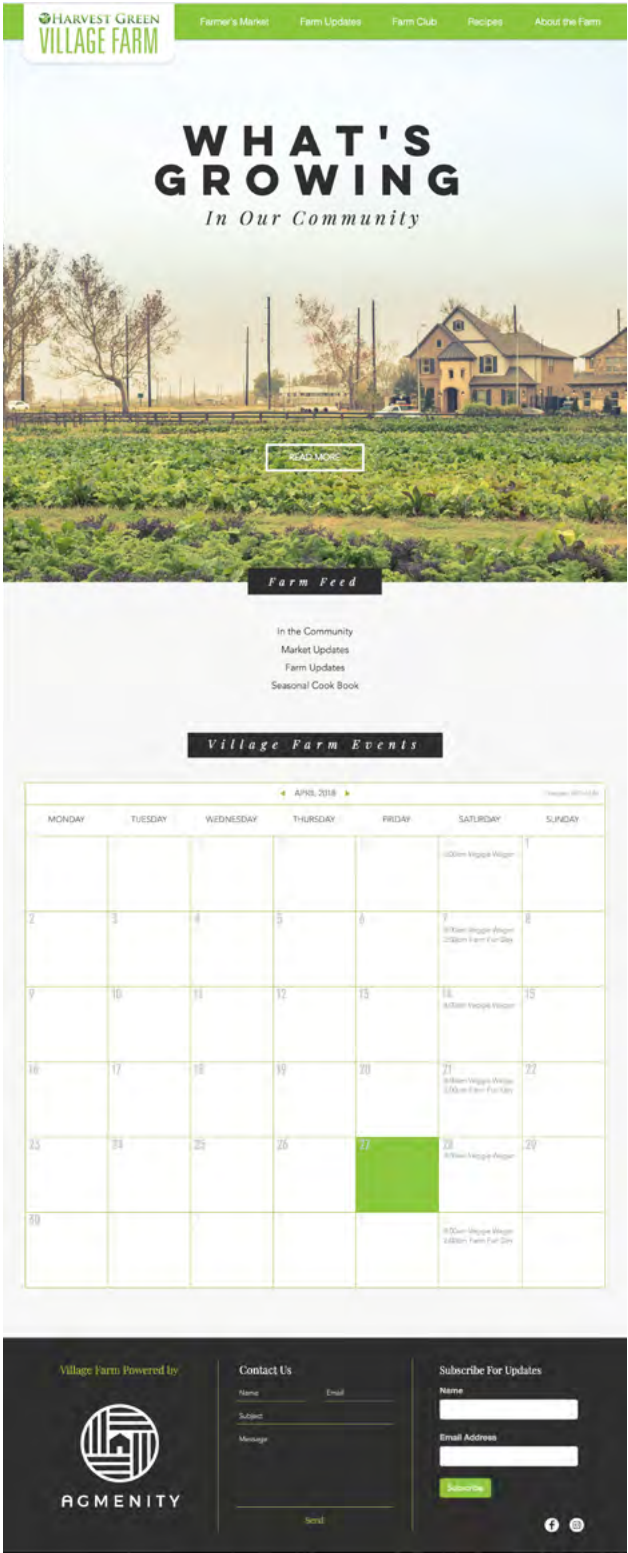
Balancing the commitment to outside education with marketing opportunities is critical in ensuring that critical farm energy is not wasted as the volume of requests for educational tours can be overwhelming. The farm is also open for regularly scheduled tours on weekends and select weekdays during the summer and holidays.

H

Super Volunteers

Farming, especially with livestock, requires 24/7 availability and significant time commitments. The Farm Educators at Agmenity have been able to identify residents who are committed to the farm and they have informally been designated as "Super Volunteers." These volunteers help the farm out in critical ways when there are special needs or when emergency access is required (in the case of sever weather events).

Programming



Communication

Communicating the value of agricultural amenities is a critical task for an agricultural services provider. For the developer to realize the value of the amenity and for the HOA (residents) to wish to continue funding agricultural amenities, information must be presented to residents and prospects in a clear and valuable manner. Our staff are involved in the production of targeted marketing and educational content for our developers.



Website

Initially the developer preferred to house all information within the development website. It was quickly realized that this arrangement did not allow for the farm to construct its own identity, a factor now heavily valued. Harvest Green Village Farm now has its own website which also houses the Farm Club and Farmers' Market web pages as well.



Newsletter

Residents in the community get most of their information about agricultural operations through the Harvest Green Village Farm newsletter. Weekly newsletters contain information about the goings on at the farm as well as recipes and volunteering opportunities.



Signage

Once on farm, significant educational signage is an excellent way for visitors to take a self-guided tour through the farm. This signage reduces the burden on our Farm Educators when residents or the public visit the farm.

Programming



J

Production Agriculture

While much of the value in the farm is realized through the promotion of the activities and agricultural engagement of the community, the core function of the farm remains production agriculture. By scaling the farm to a size that could otherwise be profitable, the developer allows the farm to function as an efficient amenity that offsets much of its own costs through produce sales.

Harvest Green residents appear to value the produce coming from the farm more when they have to pay for it than when it is given away free. For this reason, we do our best to sell a significant majority of the produce grown on the farm through our farmers' market and to local restaurants. Produce is completely controlled by Agmenity and all income is returned to the HOA to offset the cost of running the Agricultural Amenities.





A

Consulting Budget

Agricultural amenities are specialized systems that require integration into the community as well as care for environmental and food safety concerns. Every Agriculturally Centered Community will express itself through agriculture in a unique way and thus require considerable thought and planning. The consulting phase often includes research, on-site assessments, project conceptualization, design support, programming and contract development. We heartily recommend that agricultural services companies are engaged for consulting, when possible, a year in advance of the development of agricultural amenities to work alongside the development team and to provide lead time for programming development and farm educator development.

C

Management Budget

Without thoughtful financial planning, agricultural amenities are likely to fail. At Harvest Green, we carefully considered the amount of programming that activates the space, the ongoing care required for physical structures and the costs of the actual agriculture. The Harvest Green agricultural services budget is split into agricultural, community and operational categories, each with labor and expenses components. An additional management fee covers associated overhead costs. Expenses are passed directly to the HOA and budgeted out yearly. Harvest Green's current management budget includes 775 hours per month of labor. This includes all ongoing planning, implementation and management of operations.

B

Development Budget

At 12 acres the Village Farm is one of the largest operational agricultural amenities in the nation. We believe it to be a healthy middle ground between a project that is over cost-engineered and the full realization of idealistic farm conceptual designs. While we still hope to see at least a small event center with a teaching kitchen as well as permanent farmers' market pavilion, few other items from our wish list were not realized. It should be expected that development budgets will vary the widest of the three budgets based upon conceptual design, regulatory bodies and site specific development concerns. Harvest Green enjoys relatively light regulatory requirements and was developed on an existing agricultural field, requiring less rough development than many sites. While an intense, active amenity space like The Village Farm can be more expensive to develop, edible landscaping follows more closely with traditional landscaping costs. Depending on the accessibility of local fruit tree growing industry, edible landscaping should be expected to fall in the 1-2x price model.

Summary



G

Lessons Learned

Through the process of consulting, designing, installing and now managing the Agricultural Amenities at Harvest Green (all as a part of a wonderful team!) we’ve learned a few lessons along the way that we’re taking to our other future projects. We’ve outlined them here in the hopes that they will also be of value to others involved in this growing movement.

3

Thoughtful planning of business structure is important

Consider the long term success of your project and how to best align the incentives. Does the project need to be zero cost? or would residents be willing to use part of the HOA budget to fund an Agricultural Amenity. How do you incentivize a service contractor to reduce losses?

1

Having an agricultural expert is key!

Agriculture is a special creature and requires a great deal of knowledge and care. Having an expert literally “in the field” will ensure that your Agricultural Amenities are thoughtfully planned. Also, remember that even great staff members move on and have a plan to deal with those instances.

4

A new farm is a startup!

Make sure to plan for losses as the farm or other Agricultural Amenity starts up. Orchards may not return profits for 5 years, vegetable operations may lose money for 2–3 years. Consider using development budgets to fund these losses so the farm can be handed over to the HOA in a more stable state.

2

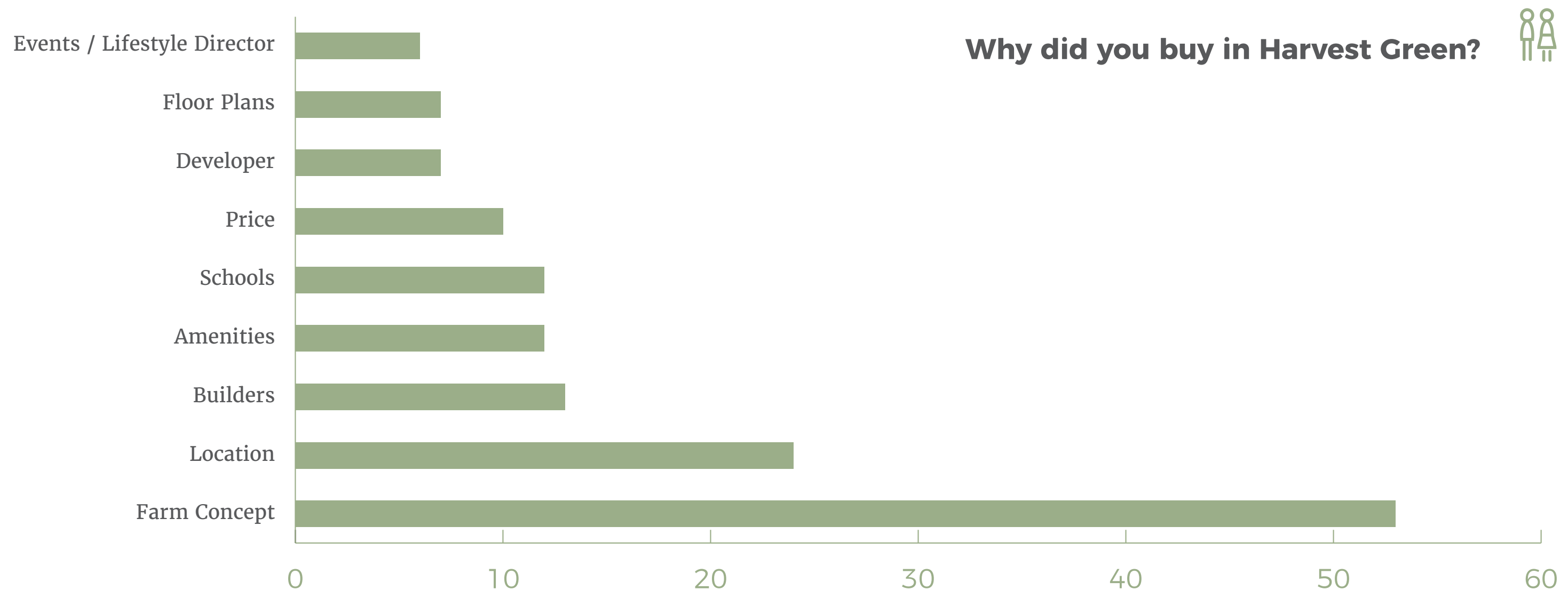
Communication is everything!

As in life in general, poor communication can break even a great thing. Good communication between coordination staff (developer, landscape architect, HOA staff, agricultural services company, etc) leads to better planning and implementation. Also, if you aren’t communicating the value of your Agricultural Amenities to prospects and residents alike, then they aren’t likely to last.

5

It's totally worth it

We get to feel it every day when we work the soil, plant seeds and interact with residents, but also want developers to understand this endeavor is valuable and worth the small risks entailed. In a survey of Harvest Green residents, Harvest Green Village Farm was overwhelmingly the number one reason chosen for buying in the community.



Internal/Promotional Links

Harvest Green Promotional Video
https://youtu.be/MwWkFN01nas
Chef Fest
https://www.johnsondevelopment.com/news/3696/check-out-the-chef-fest-top-chefs%21
https://www.cheffesthouston.com
Village Farm Website
https://www.hgvillagefarmblog.com/
Developer Website
https://www.harvestgreentexas.com/villagefarm
Farm Club Website
https://www.hgvillagefarmblog.com/farm-club
Farmers' Market
https://www.hgvillagefarmblog.com/farmers-market-updates

Press
https://www.houstonchronicle.com/neighborhood/fortbend/news/article/It-s-a-beautiful-new-day-in-the-agrihood-6887813.php
https://www.bizjournals.com/houston/news/2017/07/07/50-top-selling-master-planned-communities.html
https://www.probuilder.com/back-land
https://www.houstoniamag.com/articles/2018/2/5/2018-houston-chef-fest
https://www.chron.com/neighborhood/sugarland/news/article/Chef-Fest-dishes-up-4-000-for-area-charities-12805182.php

thanks for
reading