

WELBY FRAMEWORK PLAN

URPL 6630 & 6631: Planning Studio I & II

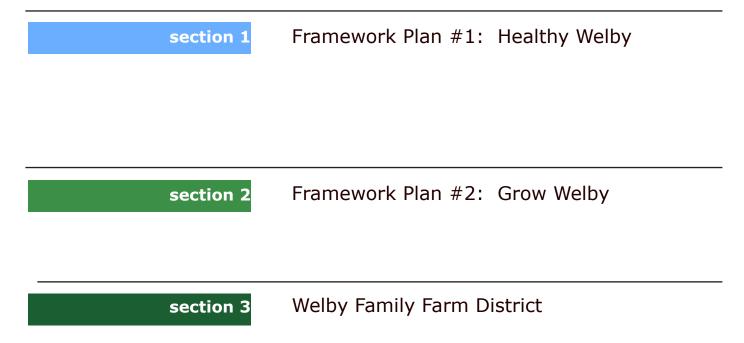
Spring 2013

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Table of Contents



ng Studio I & II - 2013 University of Colorado at Denver

Section One



Executive Summary

- Land Use Conflicts
- Nodes
- Street Transects
- Trails and Open Space

Vision Statement

"Welby will be a vibrant mixed use community; an attractive place to live, visit, and invest. This will be accomplished through preservation of Welby's unique character and development of new amenities and opportunities."

Goals

Mitigate land use conflicts

Promote vibrant node development

Preserve and expand open spaces and trails

Objectives

Land Use Conflicts

Mitigate current conflicts
Avoid future conflicts
Promote organized, compatible development patterns

Vibrant Nodes

Plan focused centers of activity Create pedestrian and consumer friendly places Create new opportunities for development

Open Space & Trails

Plan for desired future condition
Acquire additional open space parcels
Expand trail network, including new parcels
Integrate trails and transportation planning



Introduction

As part of a partnership with Adams County and the University of Colorado's Urban and Regional Planning program, five graduate planning courses were intergrated to develop a framework plan for Welby. The area is located within the western portion of Adams County, representing approximately four square miles. Bordered by Interstate 25 to the west, 88th Street to the north, the South Platte River to the east, and Interstate 76 to the south, Welby has a rich history rooted in agricultural development by European immigrant families beginning in 1908 (Welby Heritage Foundation, 2011).

However, over time Welby has grown in a diverse and eclectic manner, and in some cases, created conflicts between residential and industrial uses. Because of this, the Urban Planning Studio II course sought to delve further into the issues Welby faces, building the foundation of a community influenced framework plan which the county may then implement.

In the following chapters, we will discuss the various stages of analysis undertaken to build a framework plan that integrated input from community meetings, policy in place, successful elements from analogous regional places, as well as some nationally recognized theories. We will first highlight the process for establishing our vision for Welby, then detail land use conflicts and zoning in the existing condition. The Lynchian concept of Nodes will be introduced as a pillar of our framework plan, as well as transects and then street cross sections as prescribed by SmartCode. Lastly, we will examine the existing open space and trail systems within Welby, noting suggestions for improvements for future development.



Vision

When developing a framework plan for the study area of Welby, we first made an effort to build individual impressions of the area through windshield surveys, fact gathering, and anecdotal conversations. We then collaborated to determine what issues Welby is facing that are paramount to planning for long term sustained prosperity. Through this discussion, we determined that Welby lacks a clear identity; that its identity could easily be enhanced through effective planning techniques, but without an intentional land use plan, Welby could run the risk of being absorbed as an extension of Denver or Thornton. We felt strongly that if we could enhance this identity through places that would attract current resident and visitors alike, Welby could safely thrive.

Node development, we agreed, would be an excellent tool by which Adams County could strategically influence the type of growth that could foster a sustainable identity for the residents and visitors. With that in mind, we then sought to develop streetscapes and, with the guidance of our professor, turned to SmartCode as a guideline to introduce the types of measures necessary to meet our goals. Some of those goals included street calming measures, aesthetic improvements, and pedestrian safety. (Hartley Purdy Architecture, Inc.)





Although we had a clear idea as to how to improve Welby for its residents and future development, we were also careful to consider what circumstances may lead to a deterioration of its uniqueness. As we will explain in further detail, we realized that the industrial sector in the southern portion of Welby had begun to creep further and further north, encroaching upon agricultural and residential uses. Because of this diverse mix of uses in such a relatively small area, we felt that it was imperative to address land use conflicts and establishing zoning regulations to do so. This significant framework initiative would become another central tenant to our framework plan. Source: (Belhumeur)

Lastly, through our discussion of the assets of the study area, we were quick to identify the current open space and trail systems within Welby. While many of the issues we identified in Welby require new solution, the trails and open space present in Welby are an asset that can be leveraged to improve the whole area. It was clear that the connections to the Clear Creek Trail, Niver River Trail and other recreational open spaces were significant resources that could be utilized well not only in their current state, but also expanded to increase multimodal access within Welby. Similarly, we also determined that preservation of open spaces such as agricultural land should have certain incentives, provided by Adams County, for preservation. Through some simple measures, we were confident that our framework plan could leverage the significant assets already in place to create an identity within Welby that would be attractive to residents and visitors.

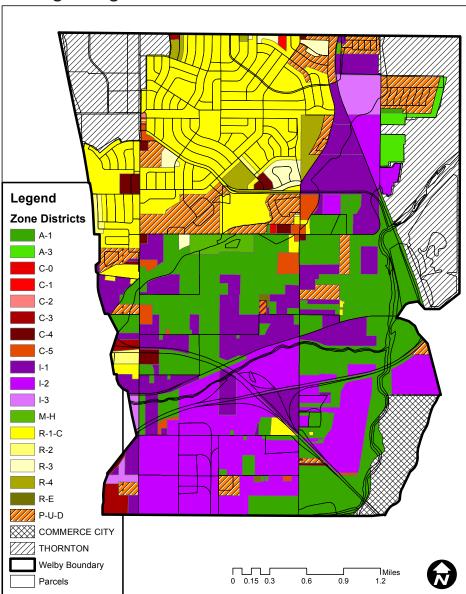
After ascertaining the major tenants on which our framework plan would focus, we began a short process of encapsulating our thoughts into a unifying statement. The vision statement, following a series of revisions, would become:

"Welby will be a vibrant mixed use community that will be an attractive place to live, visit, and invest. We will accomplish this through preservation of Welby's character as well as developing new interests."

This simple statement would guide us in our development of ideas, policies, regulatory details, and proposed implementation methods presented in the framework plan.



Existing Zoning



Note the prevalance of A-1, I-1, I-2 and R-1-C land uses in Welby. This existing zoning map does not depict the extent of the jumbled nature of the existing land uses in Welby. It is noteworthy that a number of properties in the central Welby area contain land uses other than those provided for in the existing zoning.

Land Use Conflicts

Land use conflicts have been cited by residents as one of the most significant problems is the area, undermining their quality of life and property values. In some cases, conflicting land uses involving industrial uses can have negative health impacts to adjacent residential uses, as well as environmental impacts for the area as whole. Mitigating these conflicts and avoiding future conflicts through effective planning measures should be a priority for Adams County in the future planning for Welby.

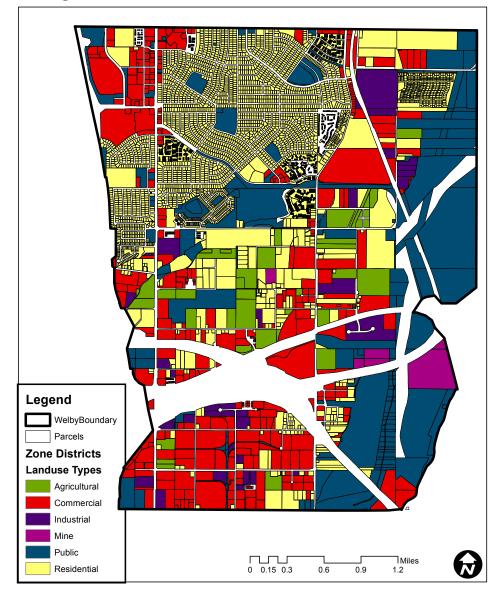
Adams County should seek to avoid land use conflicts in future development activities through the use of the following policies and regulations:

Less inclusive zoning districts (ie A-1, I-1, I-2, C-1) Aesthetic guideline descriptions for each zone district Improved public participation processes



This school bus depot presents a potential noise and air quality problem to the adjacent residential neighborhood.

Existing Land Use



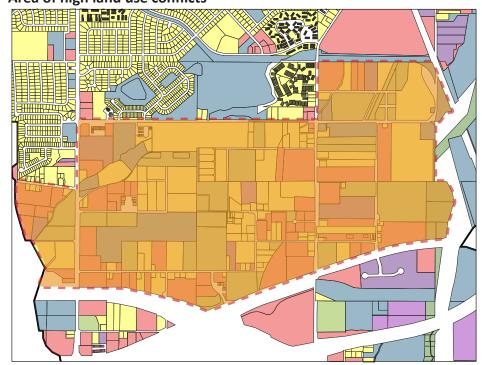
The existing land use map illustrates the jumbled nature of land use, particularly in central Welby. When existing land use is taken into account, A-1 uses appear far less common compared to commercial and residential uses.



The central Welby area (highlighted in orange below) has a particularly high concentration of land use conflict areas. Industrial and high intensity commercial uses abut low-density residential areas. Considering the poor or non-existant condition of pedestrian infrastructure and low road quality and connectivity, these conflicting uses often extend beyond property boundaries and into the right-ofway and adjacent properties.

Adams County should focus in particular on this area in its efforts to mitigate land use conflicts. One strategy that could be deployed is the establishment of industrial and residential growth boundaries (shown to the right) to mitigate the potential for the development of future land use conflicts. The boundaries could serve as a guide for developers considering projects in central Welby, as well as for potential residents who would benefit from a clear understanding of the development potential adjacent to their property.

Area of high land use conflicts



Proposed Industrial & Residential Growth Areas



Potential Benefits of Growth Area Boundary Policy:

Provides increased clarity for land owners and developers Improved land value stability for non-industrial properties Decreased negative health impacts for future development Predicability for County planning officials in future land use Increased potential for mixed-use development in Welby Public support of County and regulatory policies

Potential Draw-backs of Growth Boundary Policy:

Resistance to expanded regulation

Reconciling non-conforming uses within boundaries

Limited growth of popular industrial uses outside of boundary

Increased administration of zoning policies

Additional Zoning Recommendations Make zone districts less inclusive:

By further defining each zone as distinct from the others in the code, the County can improve predicability in the development potential of parcels in Welby. Currently, many uses in the various agricultural, industrial and commercial zones overlap, and the various zones do not fully distinguish between the intensity of development allowed. Making some zones less inclusive will provide greater clarity ofr residents, developers and propective land owners concerned about land use impacts.

Provide detailed 'zone descriptions' for each zone district:

Adding detailed aesthetic guidelines to each zone will enhance the quality and appropriateness of future development in Welby. Such descriptions would identify development and design criteria above the typical use and dimensional requirements currently provided in the zoning code.

Develop mechanisms for new and existing land use impact mitigation process for Welby:

Improving public participation through design charettes and meaningful public comment periods could go a long way to alleviating some residents concerns over land use impacts.

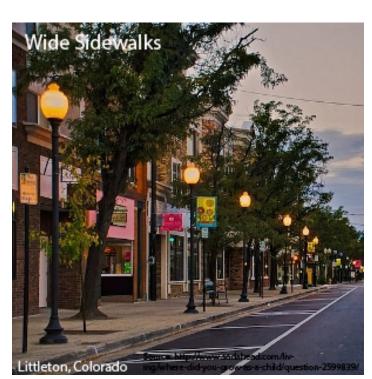
Additionally, the use of restrictive covenant agreements and similar private land use controls could ensure that future development is compatible with adjacent land uses.



Vibrant Node Development

Nodes are concentrated areas of economic and social activities in cities or towns. They often function as small neighborhood centers and offer a variety of services for residents. Nodes are usually focal points for communities and areas of interest that draw people into the community. Small neighborhood centers provide a wealth of economic and social benefits including increased job opportunities, stimulation of neighborhood economies, recreation opportunities, and increased tax base. (Shao, 2010). Nodes usually feature a mixture of different uses ranging from corner markets to restaurants to dry cleaners and other small businesses. The focus is on pedestrians and traffic calming measures are used to slow traffic and create a pleasant pedestrian experience. Buildings can be two to three stories with varying facades. Sidewalks are wide to accommodate pedestrians and patio seating. Street trees offer shade and create an inviting pedestrian atmosphere. The goal is to encourage local business growth and provide an area where residents can do their shopping and daily activities in one place.

Tree-lined streets calm traffic, enhance pedestrian safety, enjoyment, and improve aesthetic quality.



Wide sidewalks improve pedestrian access and comfort, provide commercial opportunities and activate commercial spaces.



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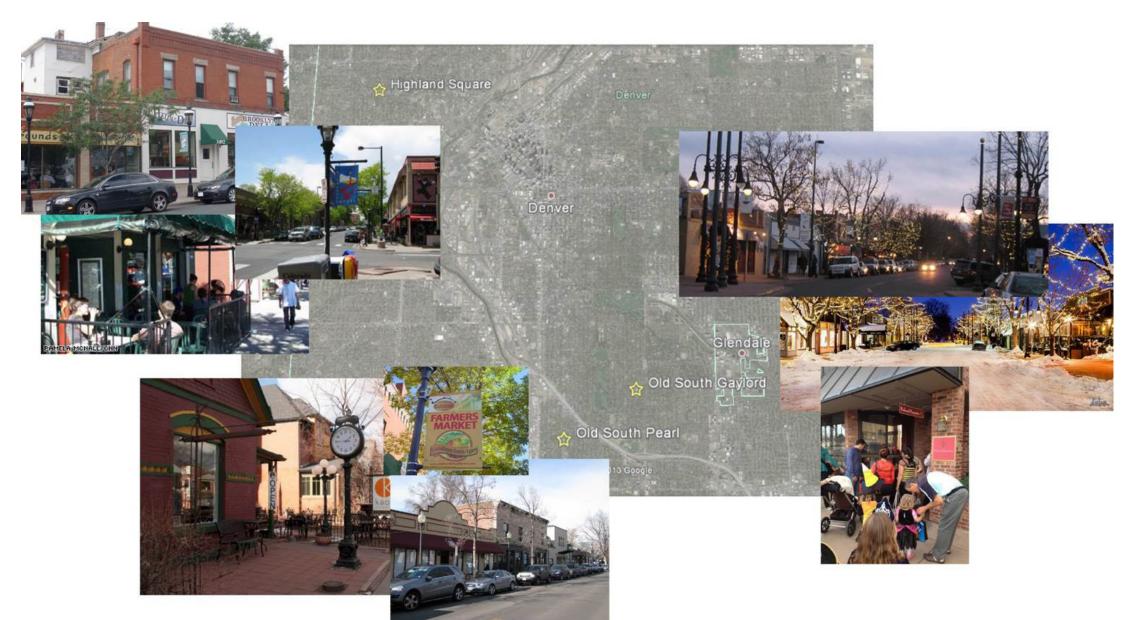
Mixed, human-scale building facades create an inviting and aesthetically pleasing pedestrian environment.

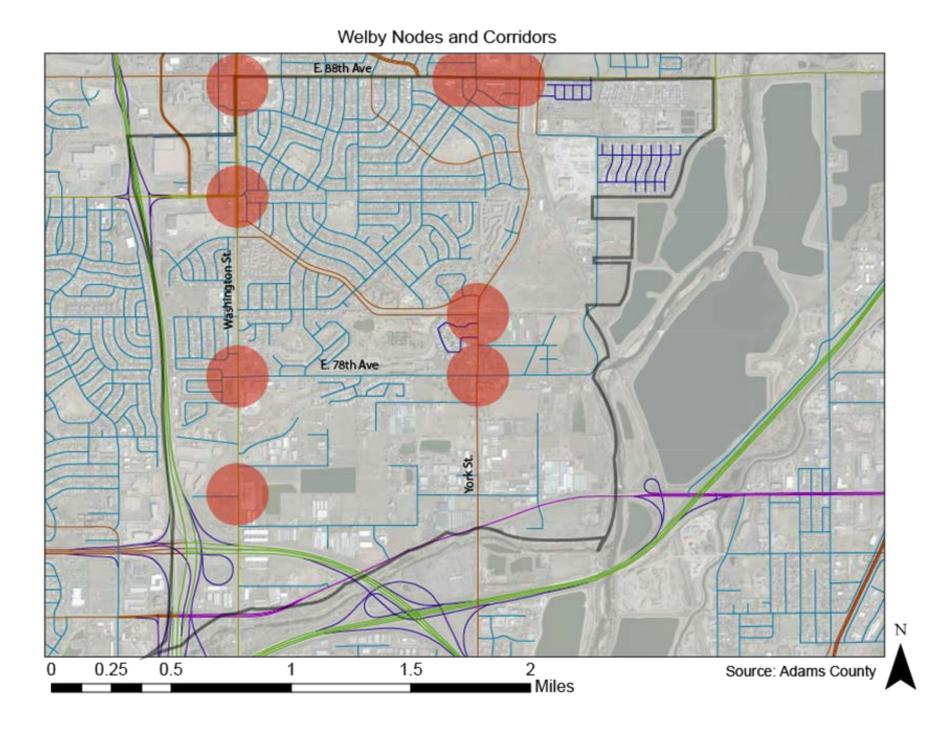


Example Neighborhod Nodes

Denver features myriad examples of neighborhood districts or nodes. Old South Gaylord, Highland Square, and Old South Pearl are examples of very successful nodes in Denver. These nodes are characterized by denser, compact development with a mixture of different commercial and residential offerings.

As neighborhood service and commercial districts, node development patterns provide retail and other commercial opportunities to local residents while attracting visitors from outside the neighborhood. In conjunction with community and economic development initiatives, this development pattern can enhance communities and economics in Welby.





A node development concept is proposed for Welby to help foster a sense of community, cluster useful businesses in areas where residents live, and make Welby a destination for those who live in the Denver metro region. Several intersections in Welby are ideal for creating higher density nodes. We chose to focus on two nodes and one corridor as examples of what the character, streetscape, and density could look like for other areas in Welby. Our areas of focus are:

E 73rd Ave and Washington St

E 78th Ave and York St

E 88th Ave between Devonshire Blvd and Rainbow Rd.

We began the process of identifying nodes by assigning certain nodes a higher qualitative rank than others. The thought process behind this approach was that by designating certain nodes of higher importance, Adams County could encourage development of certain nodes that would be of highest benefit for the residents of Welby. We discarded this approach after receiving feedback from Adams County that it would be difficult, if not impossible, to encourage development in particular areas. Developers will tend to buy whichever property suits their needs and make necessary infrastructure improvements in these areas. We revised our node map by removing priority from the identified nodes and weighting them all equally and choosing to focus on a few nodes as case studies for how the node idea would be implemented.



78th Ave. and York St. is an excellent location for the development of a node to provide neighborhood retail and service opportunities.



Transect Analysis

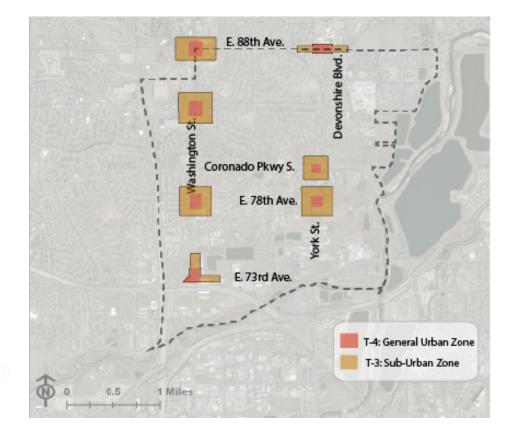
Looking at nodes through transects offers a new way to approach density in Welby. The transect concept was borrowed from ecology, in which transects are used to describe changes in habitat over certain distances. Transects translate to city planning in that they help describe density ranging from rural areas to urban cores. Instead of regulating which uses are appropriate in certain areas, transects help determine type of buildings and their density in different areas within a regional setting (Useful Community Development).

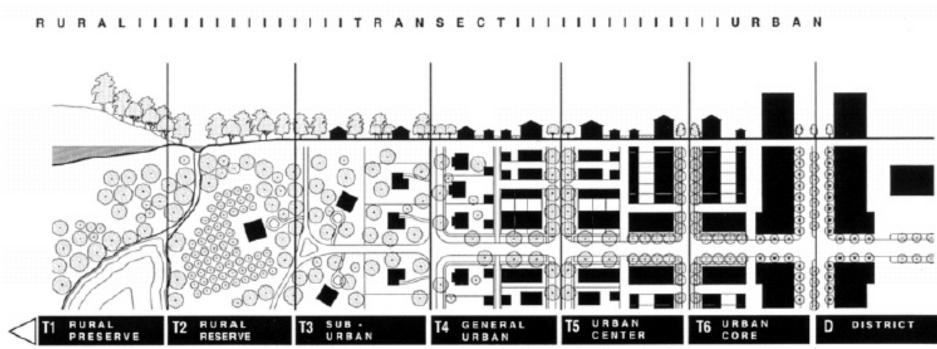
Transects range from the T1: Rural Preserve zone to the T6: Urban Core zone. T2 through T5 zones describe conditions of increasing density. The transect concept was incorporated into the node analysis of Welby, providing a means to establish a density gradient to connect more dense development nodes to the neighborhood surrounding.

The nodes appropriate for intergration into Welby include:

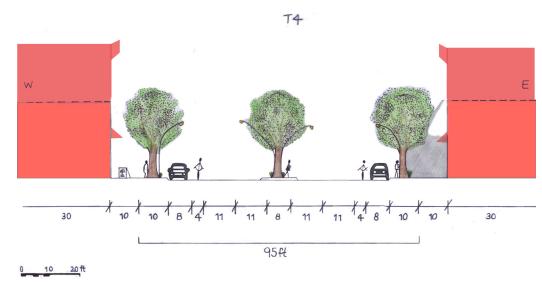
- T4: General urban density with a ring of less dense
- T3: Sub-Urban development surrounding the slightly higher density

T4: Moderate urban density located at node center. The transect corridor map shows the transition from denser red T4 zones to less dense orange T3 zones. Instead of depicting traditional zoning, the transect corridor map is used to show density and bulk of building forms. The density of an area generally corresponds to the level of development intensity and over-all activity of the area. Any areas outside the T4 and T3 zones are of a T2 Rural Preserve character. The T2 zones would not require additional development, as the character of most of Welby is already in the T2 pattern.





Sample Transects: T4 - T2

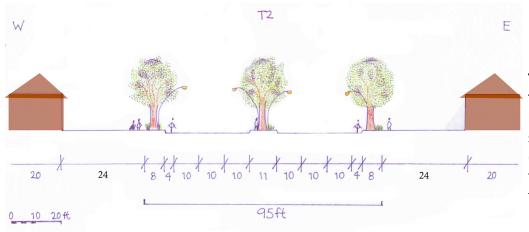


T4: Moderate Density

Transect 4 is the General Urban Zone, it consists of walkable and consumer friendly amenities and mixed use retail/office. The overall design of Transect 4 includes: street trees, streetlights, 10ft minimum wide sidewalks, 8ft wide on street parking, 4ft minimum bike lanes, tree lined medians, and 11ft wide vehicular lanes. The building setback (10ft) and height (2-3 stories) help to create a sense of enclosure for pedestrians. Bike lanes, street trees, and on-street parking create a barrier between pedestrian and vehicular spaces. The addition of bike lanes and on street parking to the streetscape can help to slow traffic and vehicular speeds.

T3:Decreasing Density

Transect 3 is the Suburban Zone, it includes more residential uses and building setbacks (24ft) are farther from the right of way. The design of Transect 3 includes: 8ft wide sidewalks, bike lanes, on street parking, tree lined medians, streetlights, and 11ft wide vehicular lanes.



95ft

T2: Low Density

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Transect 2 is the Rural Zone, and consists of mostly agricultural land. This transect is followed by the natural/open space zone (Transect 1). The rural zone has more lower density uses and only 1-2 story building heights. The rural zone has higher building setbacks (24ft+, smaller vehicular lane width, no on street parking, wider bike lanes (5ft), street tree spacing is spread farther apart, and may or may not have medians (depending on the speed limit).

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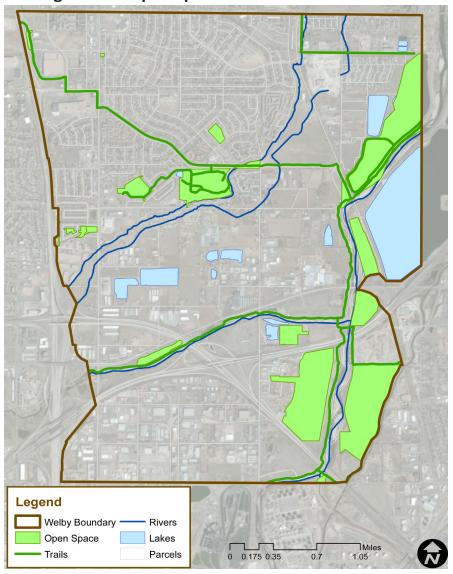


Trails & Open Space

Trails and Open Space

One of Welby's strongest assests is the extensive network of regional trails and open space parcels in the Platte River corridor. There is excellent north-south and east-west trail connectivity, putting Welby along various walking and cycling routes from Denver and surrounding areas. Welby has also benefitted from the Adams County Park and Recreation open space acquisition program.

Existing Trails & Open Space



Open space is a valuable amenity, especially in a metro-region such and Denver. One of the principal tenents of new urban development styles is the provision of open spaces and recreational opportunities, as they enhance public health and make more pleasing and attractive places.

Most communities in close proximity to Denver do not have nearly the amount of open space, agricultural land and preserved areas as are present in the Welby neighborhood. This unique asset is not only character-defining, it is also an opportunity to enhance Welby's appeal as a destination in the metro region and attractive location for current residents and new development.

In surveys and public meetings, Welby residents cited open space as one of Welby's strongest assets. Expansion of open space and preservagtion of agricultural lands was also cited as a high level priority by residents. Given the current state of development, particularly in central Welby and along the Platte River corridor, there are a number of opportunities to preserve agricultural and open space parcels, integrated into the existing open space network. The acquisition of additional open space will allow the County to expand the trail network through Welby, enhancing an exisiting amenity to the benefit of existing and future residents.







Future Trails & Open Space

Agricultural and undeveloped parcels adjacent to the Platte River Corridor provide a unique opportunity for Adams County to preserve some of Welby's unique character and provide a recreational amenity and attraction in the heart of the Denver metro area.

When planning for the future condition of Welby, maintaining a robust open space program will provide the area with one of the largest networks of preserved agricultural and open space properties in the metro-region. Over time, the open spaces and trails could be improved, amenities added and the program could be an attraction for cyclists and other recreational users throughout the area. The network would also provide Welby residents with recreational opportunities, enhance property values in Welby and attract new development seeking to leverage the open spaces into high quality of life for future residents.

The following recommendations should be included in the Welby subarea plan:

Concentrate open space parcels in and around the Platte River corridor

Fund the purchase of undeveloped parcels
Secure conservation easements on existing agricultural parcels
Plan for additional trails throughout Welby to enhance
connectivity and recreational amenities
Integrate trail and surface street bicycle path planning

Without planning for an expanded open space program and additional trails, Adams County would miss an opportunity to add a valuable amenity to the Welby area. Over time, as the Platte River corridor is activated in various communities throughout Denver, it will become an increasingly relevant and valuable open space resource. Welby could position itself as an integral piece of the corridor through the adoption of these recommendation.





Conclusion

This framework plan is meant to address current and future development issues in Welby. As such, it includes provisions for improving land use patterns and impacts for developed and under-developed areas. The zoning analysis and recommendations component of the plan is intended to address the concerns of residents regarding negative impacts from the high variability of land use types, particularly in central Welby. The recommendations also provide a general framework for planning for development patterns that avoid land use conflicts in the future.

In the development of our framework plan, we employed Kevin Lynch's concept of Nodes as an effective way to focus development and activity to bring Welby residents and visitors together. We suggested that clustering activity at nodes would invite economic growth, provide centers for community activities, and safe, people-focused areas. The plan also prioritizes node selection based on a criteria of supporting density, based on expectation of commercial and community performance, but recognized the difficulty in forcing that development. Because of this, we strongly recommend that future development take on forms prescribed in the T-2, T-3, and T-4 transect models.

In designing future streetscapes, we sought to develop an aesthetic guideline, reflective of the feedback heard in the community meetings, utilizing the SmartCode guidelines. We were also careful to introduce measures to increase safety and consumer friendly nodes. At the same time, the plan places appropriate levels of urbanization through implementation of transects T-2, T-3, and T-4, gradually decreasing densities further away from a node. Despite these prescriptions, we recommend partnership with the community to further develop unifying design elements that will be a part of future development.

Finally, the trails and open space recommendations provide techniques for the County to develop Welby into a regional leader in land preservation and recreational amenities. This will provide a vital asset for new and existing residents, as well as attract visitors from around the Denver metro region.

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Section Two



- Introduction & History of Welby
- Site Analysis
- Grow Welby
 - Vision Statement & Goals
 - Plan Map
 - Agritourism
 - Welby Food Trail
 - Garden Village Center
 - Economic Feasibility
 - Civic & Recreation Center
 - Welby Waterfront Park
- Summary & Future Nodes / Bicycle Improvements
- Appendix I: Resources

Introduction & History of Welby

Location

According to the Census Class Code Definition, Welby is both a populated place and census-designated place belonging to code U5. It is an innerring suburb located within Adams County, Colorado less than 30 minutes from downtown Denver. Physically, the area is bounded by 88th Avenue to the North, Highway I-25 to the West, Highway I-76 to the South and the



Platte River Trail to the East. Welby covers an approximate area of 3.7 square miles with a population of 14,846 (US Census 2010). Niver Creek basically bisects the area into two halves and the existing Union Pacific rail line cuts through the northeast corner of Welby. The name Welby is said to be derived from the last name of railroad official Arthur E. Welby.



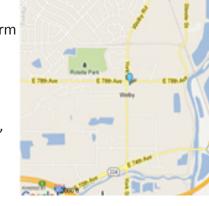


Historical Context

The precise history of human settlement in Welby area is not clear. However, it can be roughly dated back to 1889. Before this time, people were travelling to the mountains for goldmining opporunties. When the gold rush ended, these miners started living along the riverside and began farming. In 1893, the four-classroom Cline School was constructed at the corner of 78th Avenue and York Street in order to serve the growing agricultural population. The school was in operation until 1955 and the building was finally demolished in 2001 at the decision of the church members.

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By 1908, Welby was an established farm town. Most of the Italian immigrants were working in mining and railroad operations at that time. Later they began vegetable farming in Welby, producing crops such as green onions, carrots, and celery. About 300 Italian families were involved in small-scale "truck farming" in the Welby area in 1920.



Over the years Welby farmers constructed ditches, obtained water rights, while the Cline school grew and other schools and churches were developed. Also, traditional farming was changed into intensive gardening. The population of Welby diversified, growing to include Americans, Scandinavians, Germans, and Japanese residents who were mixed with the predominant Italian population.

The Assumption Church was built in 1912, next to the Cline School. It was the first institution of its kind in Welby, serving as a community center bringing people together for religious



purposes, and various other activities such as an annual bazaars and spaghetti dinners. The farming industry served Denver City's Market and Denargo Market until late 1940. However, the development of

chain grocery stores combined with Adams County land development policy created a hardship upon Welby farmers. As a result, the growing industry started to decline.

At present, Welby is one of the most diverse communities in the region. It has about 4000 private owners, showcasing a diversity in race and economic wealth. However,

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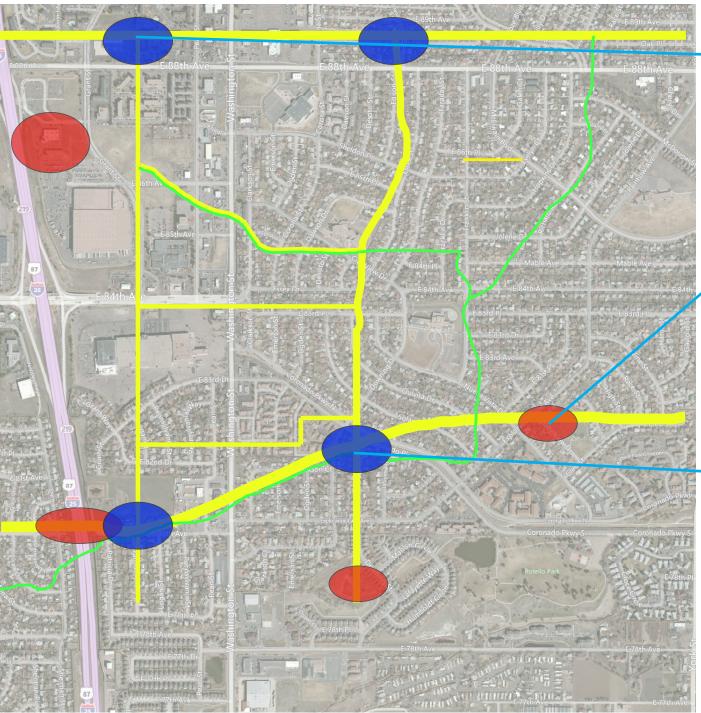
it is struggling to gain its identity without proper management and development policy to address the growing conflict among residents and businesses, most notably industrial and commercial enterprises. Despite of its significant homesteading history, its wealth of natural resources, and its agricultural value, Welby is at risk of becoming an underused thoroughfare connecting north and south instead of a destination with character and value.



In order to properly create a sub-area framework plan for the future of Welby, it is important to first understand what the current situation is, the strengths and challenges of the area. An overall challenge for the area is the dichotomous nature of Welby that shows the split between the well-developed northern residential area and the lesser developed agriculture and industrial area in the south. Creating a plan that will address both areas to create a single unified Welby will be difficult but not impossible.

Whether driving through Welby or analyzing from the computer, one of the first challenges recognized is the conflicting land uses in much of Welby. An industrial plot may be next to both an agricultural and a residential plot. This creates conflict in land and road uses that has led to much frustration expressed by the residents. Also, partially as a result of these conflicting land uses, the road network in much of Welby ends in dead ends rather than making connections through to other streets. This produces excessive vehicle miles traveled and limits other options. Another major challenge is the lack of sidewalks, bicycle lanes, and other multi-modal transportation methods. The car is the option of choice because it truly is the only option in Welby; there are simply no other safe ways to get to many areas.

The demographics of the area also indicate potential challenges for the future. Most of the northern region of Welby is younger, more Hispanic, and with more children, while the southern portion is older, whiter and with no children. This means that many owners of agricultural land in the southern portion may be looking to sell in the near future while those in the north will require more schools and services for children in the near future. The median income and land prices are also lower than many other areas of Denver indicating an opportunity for new development in the area to provide housing that is affordable for residents with different income levels.









Bicycle TrailsMajor Surface Roads

Major Surface Road Entry Points



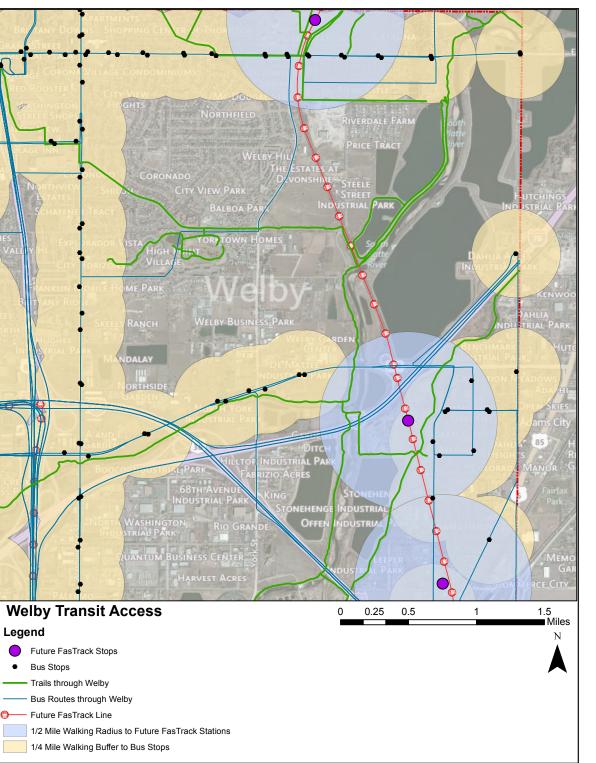


The primary transit locations in Welby are along Washington, 88th, and Highway 224. These are primarily bus stops, with pickups occurring approximately every 30 minutes. These are shown with 1/4 radius circles to indicate walkability. There is also a planned light rail route with stops at 72nd and Colorado, and above 88th and York, shown with a 1/2 mile walkable area. Both these stops are outside the boundary areas of Welby, but will doubtless have an impact. There is no transit in the interior portion of Welby, rendering most residents dependent on their autos.









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Issues:

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There is a significant lack of transit access within much of Welby. Also, the stops that are present have infrequent pickups, making travel by transit more difficult. Many of the stop locations also need improvements to infrastructure.

Opportunities:

More routes through the center of Welby would increase ridership and lower car travel. Also, increasing the frequency of pickups would also make the area more walkable. If the light rail stops can be sufficiently tied into the Welby area, they could become benefits to the community.



Vision

Create a vibrant community that prospers economically and promotes and preserves the historic and agricultural heritage of Welby.

Goals

Showcase Welby's agricultural heritage by conserving and enhancing existing agricultural lands and encouraging targeted mixed-use growth to provide needed services amenities for existing residents and to attract new economic opportunities to cultivate a local community centered around agritourism and education.

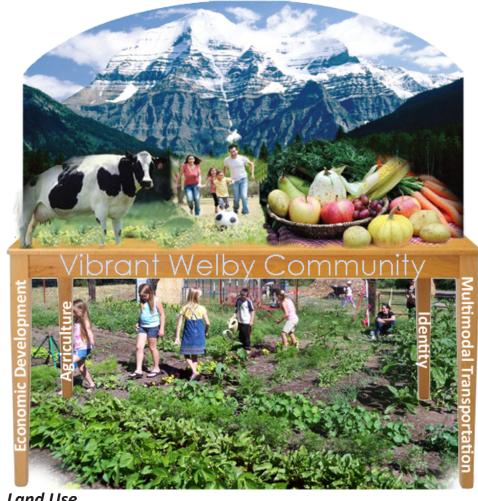
We will create a unified Welby and build a unique identity by bridging conflicting residential, agricultural, and industrial uses through street improvements, land use unification, and the development of new mixed-use nodes.

Economic

- Create a politically and economically viable plan for the Welby
- Implement agritourism as a tool for agricultural preservation and economic growth
- Increase economic opportunities for Welby residents and business owners

Development

- Increase housing density to create local town centers with a mix of retail, commercial, and residential uses
- Encourage local retail and small business operations
- Restrict new big box development
- Create a low-medium density housing in the southern half of Welby to encourage growth of agricultural communities



Land Use

- · Control and direct density and land use to create agritourism and town centers
- Allow ADUs on agricultural parcels to support agritourism
- Preserve existing historic properties
- Locate industrial growth in areas of least adverse impacts
- Rezone parcels to encourage and incentivize desired uses

Circulation and Transportation

- Lessen car dependency for residents and visitors
- Improve and expand bicycle trail networks
- Create pedestrian-friendly sidewalks that engage users through street section improvements, traffic calming measures, and beautification
 - o Street parking
 - o Parking in rear of structures
 - Wider sidewalks
 - Trees and medians
 - o Elimination of dead ends
- Provide connections to future TOD
- Connect residents and visitors to parks, tra ils, and open space amenities by increasing multi modal transportation networks

Agriculture

- Create an hub for agricultural tourism centered around local, fresh produce
- Preserve existing agricultural lands
- Establish a local farmers market to serve the residents and draw visitors to Welby
- Connect residents to the Welby's agricultural heritage and its farmers

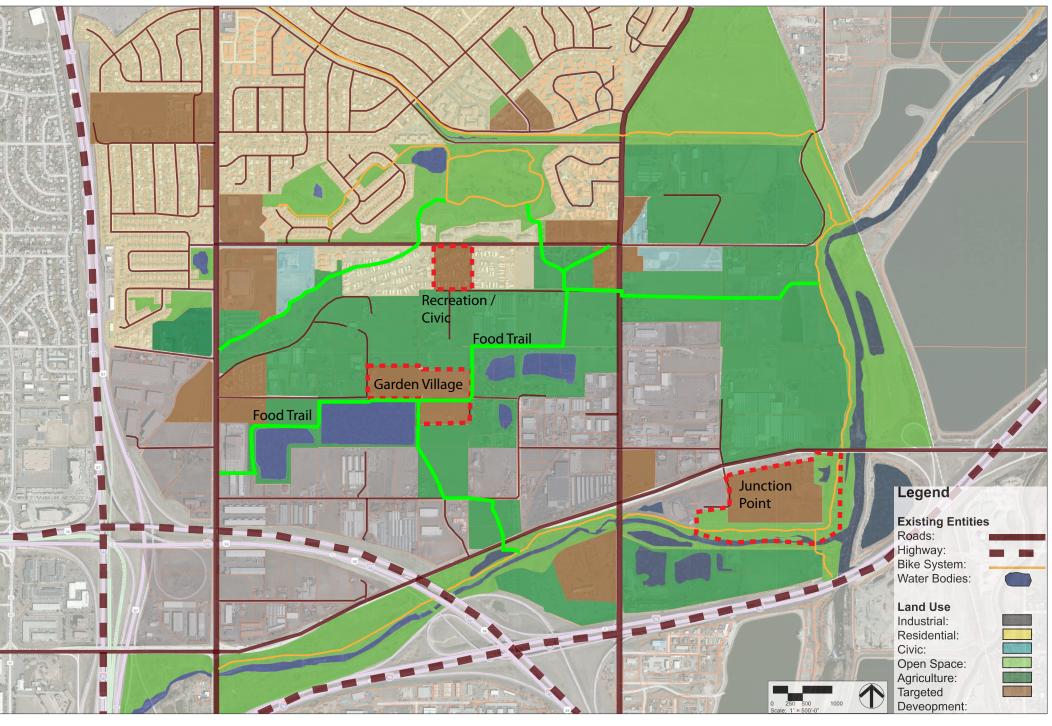
Community

- Create gateways to Welby to promote a sense of place
- Establish a unique brand for Welby centered on local food and community
- Organize community activities
 - o Movie in the Park
 - o Clear Creek Confluence Park
 - 5K run
 - o Fitness Trail system



Overall Plan Map





Grow Welby

Grow Welby is an idea to create a community based on the four principals and vision and goals listed on the previous page. This map shows the overall areas of change.

Economic Development

Targeted & Limited Development

Agriculture

Keep Farming Heritage

Identity

Make Welby a Destination

Multi-modal Transportation

Choice of Transportation



Agritourism

"An enterprise at a working farm, ranch or agriculture plant conducted for the enjoyment of visitors that generates income for the owner."

-American Farm Bureau



Agritourism is about the involvement of people (suppliers and consumers) in different agricultural activities for mutual benefits.

Simply speaking, it can be defined as a destination where farmers and ranchers offer varieties of recreational, educational, leisure or entertaining activities or services and products related to agriculture in-order to cater the needs of consumers or visitors. Increasing number of people like agritourism for reasons such as entertainment in an outdoor recreational environment, that is other than the bustling crowd of modern plazas and super-stores. Individuals get to interact with nature, animals, buy fresh produce, pick their own fruits or vegetables of choices, show kids how the farmers grow the foods that we consume everyday, and get to interact with where the food comes from.





Agritourism have become a very popular and one of the fastest growing industries in the history of eco-tourism industry in the United States and around the globe as well. Agritourism in general can be defined in various ways according to the context, however, the primary objective of agritourism is to add value to the land without necessarily adding acreages.



History of Agritourism

Agritourism dates back to the late 1800s when city dwellers escaped urban life on short vacations to the farm to visit their relatives. In the 1920s, the growth of automobile travel made it easier for people to head for the country. Rural recreation rose significantly in the 1930s during the Great Depression and in the 1940s following World War II. In the 1960s and 1970s, horseback riding and farm petting zoos became popular. In the 1980s and 1990s, farm vacations, overnight stays at bed and breakfasts and commercial farm tours became popular. Today, demand continues to grow for agritourism.



Benefits of Agritourism

Agritourism can provide many benefits to the agricultural producer:

- Cash flow during the off-season
- Opportunity to sell the "experience" of your agricultural venue
- Opportunity to sell products grown and harvested in your agricultural operation
- Opportunity to share your passion of agriculture with others

Anyone planning to start an agritourism venture should look at the venture as a BUSINESS. First, ask yourself, "What type of agritourism business do I want to operate?" Will it be to (1) supplement cash flow, (2) earn a profit or (3) provide educational fun and enjoyment to others without making a profit?





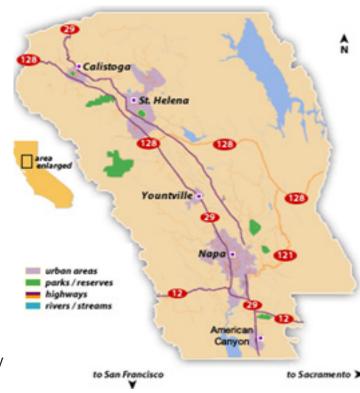


A) Napa Valley Wine Trails (Napa, California)

Napa Valley is about 30 miles long and 5 miles at its widest point and houses 400+ wineries at present. The popular activities in making Napa Valley the most successful agritourism industry are:

- Napa Valley Wine Train
- Hot air Ballooning
- Cruise along the Napa River
- Wine Tasting
- Spa Treatments / Massages
- Napa Valley Opera House
- Lincoln Theater
- Golfing
- Hiking
- Bicycling

The first commercial winery was started in Napa Valley (Northern California) by the Charles Krug Winery in 1861. Several other wineries started after the successful operation of this winery in the area. The group of vintners and other community members envisioned the



future winery industry and agricultural potential early on. As a result they started to preserve open spaces and prevented the area from future over-development. Today the area has become one of the best destinations in the United States and the world averaging about 4.7 million visitors each year.

Winery Tours



Source: http:// winetrain.com/ about/napa

Napa Valley Winery Tour consists of a thirty-six mile round-trip journey from the historic town of Napa, through one of the world's most well known wine valleys to the quaint village of St. Helena, and back. This tour is the most attractive activities of all in the Napa Valley that offers a full Napa Valley experience. The various programs within the tour packages can be visit of some of the unique destinations within the valley, testing and sample local Napa wines, Wine educator in the stations, gourmet lunch on the train, vineyards tour, sightseeing, lodging & food etc.





The various private companies offering tour packages and programs provide visitors the choice of vacation packages that fits best. It is creating local jobs by boosting-up the local economic activities and ultimately adding a high value to their lands.





B) Berry Patch Farms (Brighton, Colorado)

Berry Pitch Farm is one of the successfully running small scale agritourism industry in the states of Colorado. It is a certified organic farm by the USDA that offers the following services in general,

- Pick-your own products in the farm such as sweet strawberries, rasp berries etc.
- II) Runs its own farm market featuring a wide selection of our justpicked produce, including roasted chilies, vine-ripe melons, tomatoes, peppers and varieties of fruits, healthy snacks, prepared food etc.
- III) Offers educational school tours, field trips for adults, cooking classes and other special events
- IV) Picnic spots with tables for small sized groups.
- V) Hay-rides
- VI) Farm animals / critters like chickens, pigs, turkey etc.
- VII) Farm dinner
- VIII) Vegetables & Flowers





These kind of precedent studies about agritourism have guided us about how to address the needs of preservation in the context of Welby's agricultural heritage. The traditional way of farming today should be modernized to be competitive and achieve the full advantage of the applied labor on the resources. Since Welby has regional importance due to its location context, it can benefit from accessibility, rapidly increasing population in Metro Denver region, availability of agricultural lands, water resources, scarcity of Denver based food production industries, increasing health problems due to frozen or packaged food items, lack of fresh foods etc.







Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa Instructor: Korkut Onaran, PhD

Forms of Agritourism:

Agritourism has a various forms and ventures of business opportunities. The table provided showcases some forms of Agritourism.

Outdoor Recreation: Educational







Entertainment:

On Farm Direct Services:





















- Fee Hunting
- Fee Fishing
- Camping
- Picnic Areas
- Bird Watching
- Wildlife Viewing & Photography
- Horseback Riding
- **On-Farm Rodeos**
- Skeet Shooting
- 10. Snowmobiling, crosscountry skiing, offroad motorcycling, mountain-biking

- 1. Cannery / Food **Processing Tours**
- Aquaponics
- Wine-Tasting & Tours
- Microbrewery Tasting & Tours
- **On-Farm Museums**
- Cooking Classes
- Bee Farm Operations
- Garden/Nursery Tours Agriculture Exhibits
- 10. Working dog trials/ training
- 11. Guided crop tours
- 12. Farm or ranch work experience

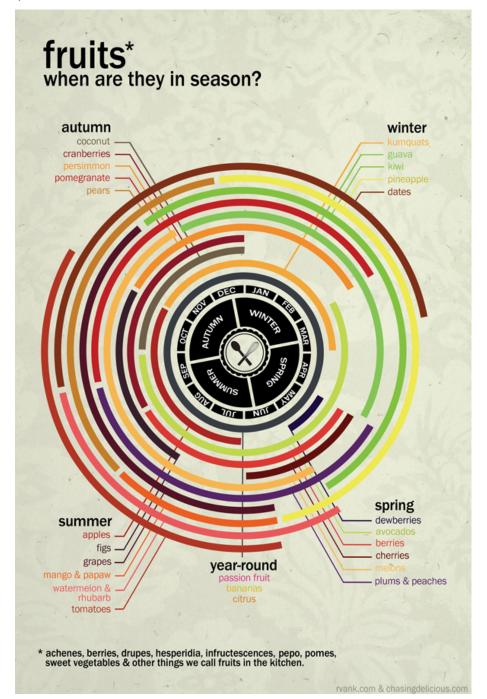
- 1. Overnight Farm or Ranch Stays / Bed & Breakfasts
- **Guided Tours**
- Farm Tours
- Dude Ranch
- 5. Field to Table Restaurants
- Youth Camp
- 7. Special Events: Weddings, retreats, family reunions. meetings

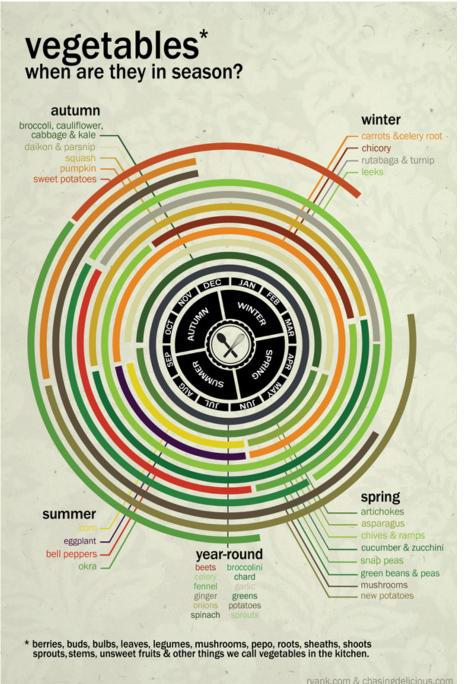
- 1. Harvest Festivals
- 2. Barn Dances, Hoedowns
- Concerts
- Petting Zoos
- 5. Tractor / Wagon / Hay rides
- Sleigh Rides (winter)
- Tractor Pulls
- **Exotic Farm Animals**
- Hay Bale or Corn Mazes
- 10. Pony Rides
- 11. Photography or Painting classes

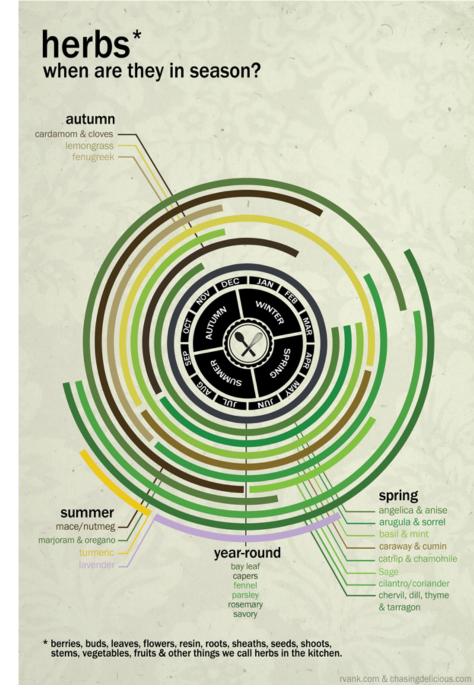
- **Christmas Tree Sales**
- Pick-Your-Own Operations (fruits, vegetables, trees, etc.)
- Roadside Stands
- Farmers' Markets
- Agricultural crafts



Agritourism is a sustainable economic model since it supports a diverse range of agricultural crops with growing seasons that occur year-round.









Based on Welby's agricultural history and current land use, we propose the establishment of an agritourism trail in the southern portion of the Welby area.

This trail would preserve and celebrate Welby's agricultural heritage by creating new economic opportunities for landowners of agricultural land. By creating a community of farmers, small business owners, and local residents through granting new development rights, the trail would provide an anchor for Welby agritourism.

The Welby Food Trail would be primarily a pedestrian and bike thoroughfare, but could also support horse and agricultural vehicular traffic to accommodate agritourism activity. The trail would allow visitors and residents to experience the agricultural activities occurring within the Welby area. It would also further expand the bike connections within Welby, creating additional recreational activities for trail users.

Development along this corridor would be focused on parcels with frontage to the trail. Setbacks of structures serving the trail would be limited in order to help create a continuous and accessible agritourism community.

Benefits of the Welby Food Trail:

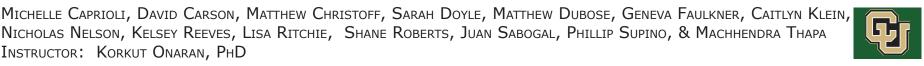
- Local source of food
- Educational opportunities
- Attracts economic opportunity
- Adds value to agricultural properties
- New recreational opportunities
- Increased connectivity for cyclists
- Creates local economic wealth by attracting new visitors



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INSTRUCTOR: KORKUT ONARAN, PHD





Garden Village Center

The Garden Village Center is at the heart of the Agritourism concept and is developed around the existing agriculture and future food trail development at the center of the agriculture buffer next to the existing gravel pits on E. 75th Avenue in Welby. The Garden Village Center provides an important niche market for farmers and residential suburban growth in the future of Welby. It combines a truly sustainable initiative improving the quality of life by combining the rural living with the advantages of urban conveniences and culture. The Garden Village Center would incorporate a mixture of uses that revolve around agriculture and tourism while incorporating a small community feel. The principals of the Garden Village Center are based upon the Agritourism concept, which combine agricultural



Location Map

production, outdoor recreation, hospitality, educational components, entertainment, and on farm direct services. Key elements within the Garden Village will include such items as food production and mechanisms for selling food items (farm stands), social network areas such as community gardens, and financial developments such as farm to table establishments that will create a commercially viable mechanism for individuals and businesses to truly become self sufficient and create tourism within Welby.

INSTRUCTOR: KORKUT ONARAN, PHD

Some of the key features in the Garden Village will be:

- Agricultural Production: No loss of agricultural value or revenue from sales of crops to restaurants within the village, markets, or food vendors along the trail, or a combination thereof.
- Locally Grown Food: Production of a significant portion (30 to 50%) of dietary requirements grown within or in the immediate surrounding area of the community, which allows for residents and tourists to know how their food was grown as well as have a connection with the farmers.
- Conserves and Promotes Natural Resources: Appropriate and efficient use of natural resources to provide housing, transportation, recreation and fresh food through creative, harmonious land planning and landscape architecture for the community. This includes use of alternative energy sources as well as land and water.
- Self Sufficiency: Provide a commercially viable opportunity for enhanced self- sufficiency for community residents, tenants, and guests.
- Financing: Incorporate established entities (Metropolitan Districts, HOAs, and Adams County) to finance both traditional infrastructure (streets, water, sewer) and environmentally friendly agricultural infrastructure (drip irrigation)



Boutique Market & Stores

The main focus within the Garden Village will be a community that has improved agriculture, enhanced development, and community context with various on-farm recreation activities occurring. The Garden Village location within Welby and Metro Denver is the key to bringing development and change within Welby. The location of the village near cities and suburbs benefits the residents and farmers as the tourism aspects will increase stimulating the local economy as well as the residents will have areas of activities and recreation within their neighborhood. Higher land values as well as local government tax revenues use to support local school and other public sectors may be created from Agritourism and the Garden Village Center.

Some of the recreational events and types of businesses within the village are:

- Boutique Markets & Farm Stands
- Farm-to-Table restaurants
- Pick-Your-Own Operations
- Farmer's Markets / Food Stands
- Agricultural Heritage Museum
- Festivals
- Farm Tours /Food Manufacturers



Bed & Breakfast



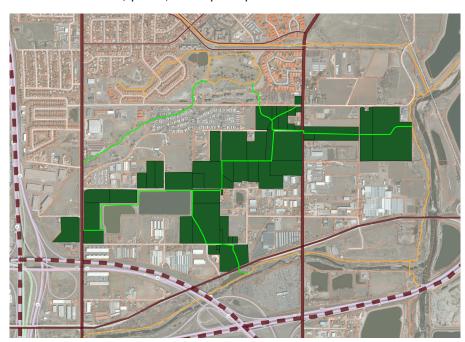
Economic Feasibility

Agritourism Development

In order to successfully develop a healthy agritourism industry in Welby, the public and private sectors will have to work together to achieve a common vision.

Public

Adams County can play an integral role in the growth of agritourism in Welby. The county can introduce and facilitate discussions about agritourism in Welby, helping the community come to a collective understanding about the implications and opportunities of the Welby Food Trail. Zoning and regulations can be amended to grant specific development rights to parcels in properties that may support agritourism activities. The county can also plan and implement the bicycle and pedestrian path, extending their current network of recreational trails, parks, and open space.



Parcels highlighted in green have frontage to the Welby Food Trail and are eligible for increased development rights.

Development Parcels

Adams County can rezone specific parcels of land to grant additional development rights to land parcels adjacent to the food trail in order promote the growth of the Welby Food Trail. Different uses and amount of allowed development may depend on property lot size and location along the trail. Proposed allowed uses include:

- Agricultural Industry
- Community Farming
- Small restaurant sourced from local farms
- Local shops
- Farmers markets
- Food stand
- Bed and Breakfast-style lodging
- Low-density residential housing

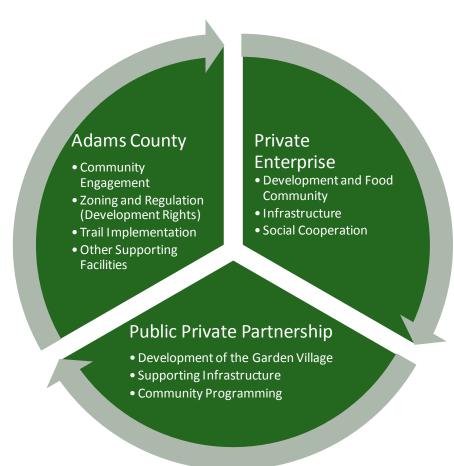
Lot Size	Approved Uses
Large	Semi-industrial Agricultural Industry, Agricultural Cooperative, Lodging, Restaurant, Shop, Stand, House
Medium	Lodging, Restaurant, Shop, Stand, House
Small	Shop, Stand, House

Private

Private landowners, developers, and organizations will be primarily responsible for the development and establishment of agritourism activities within Welby. These stakeholders must create financially sustainable businesses and profitable agricultural operations in order to support the growth of the food trail. Private enterprises should work together to arrange the necessary infrastructure for their operations, as well as work together to create a cohesive agritourism community.

Public Private Partnership

Adams County can partner with the private sector to develop the Garden Village. Because the Garden Village is a key center of Welby agritourism, the government and private developers can collaborate to ensure that both community and county needs and expectations are being met.



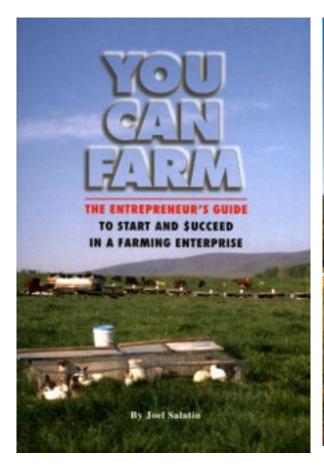


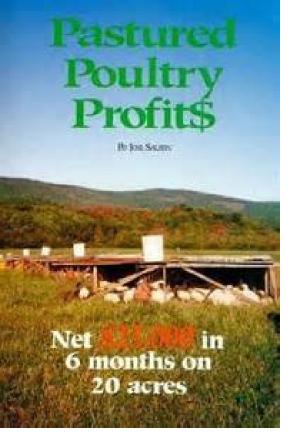
One of the potential hindrances with moving to an Agritoursim based economy is the perception that small scale farming isn't profitable. Most people think the only viable agricultural model is large scale conventional farming. Despite this perception, the truth is that small scale family farming can be more profitable per acre than large scale farming. Polyface Farm in Virginia is one such example of a possible family farm model. Their primary products today are beef and chicken, supported by eggs, pork, vegetables, and firewood, as well as farm tours, internships, and even a bed and breakfast.

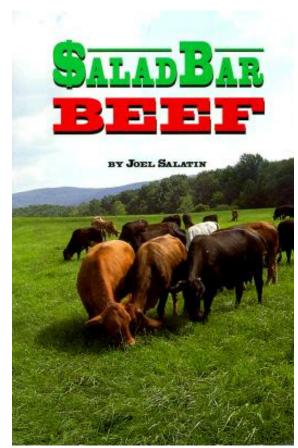
The production model of Polyface farm is not the conventional, heavy machinery model of feedlots and factory farmed chickens. Instead, both beef and poultry are pastured fed, with mobile fencing and chicken coops that mimic the natural buffalo and bird symbiosis that once dominated the plains of America. The farm's intensive grazing management rotation system allows for maximum production before moving the animals to the next grazing area. This allows high productivity and profit at very low cost and maintenance.

Examples of such net profit figures are: \$5.50 per Broiler chicken, \$15 per hen per year for eggs production, \$12.50 per Turkey, and \$3,350 per cow in yearly milk production. These figures are independent of size, allowing for individual farmers to start small, like Polyface farm started out, and grow as much as the farmer wants to grow.

Product	Net Profit	Unit
Broiler Chickens	\$5.50*	Per Bird
Egg Hens	\$15*	Per Bird Per Year
Turkeys	\$12.50*	Per Bird
Cow Milk Production	\$3,350**	Per Cow Per Year







Economic Feasibility

Another example of small scale family farming is Johnson's Orchards & Peaks of Otter Wineries in Bedford Virgina. Like many small farms, they initially specialized in a single crop, in this case apples. In the 1980s, winter threatened the apple production, so them opened the farm up to school groups and guests to "pick you own" fruit and save what they could of the apple harvest. This paved the way for the operational model of the farm to change to a pick your own operation, another form of Agritourism. The family then opened the farmhouse as a Bed and breakfast for over night guests.

The combination of direct marketing, pick-your-own, lodging, and a new winery supplement to supplement apple production are examples of how a small family farm can become more diversified and therefore economically stable and profitable. Like Polyface Farm, both farms started small but chose alternative paths to conventional farming to be able to survive and thrive. The options of alternative farming paths is almost endless, from typical animals such as beef and chickens, to vegetables, bed and breakfasts and camping, carnivals, aquaculture and fishing, wineries, breweries, home baked goods, and a thousand other different products.

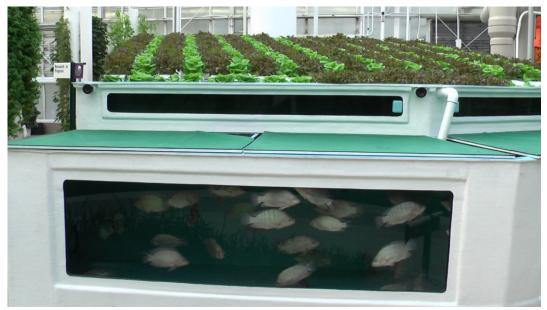
The goal for most family farming is not to become a large corporation, but instead to provide a needed service and be part of the community. Polyface farm has less than a thousand consistent customers in its area of Virginia, but the same type of small scale farm model could be replicated many times in each state, county, and even city. Instead of large national chain supermarkets, customers could get their food directly from the local farmer and keep the money in the local economy.

The examples of these two farms show alternatives to conventional agricultural and farming, which relies heavily on machinery, loans, and volume to try to make a profit. Instead, Agritourism and small scale agriculture can provide a diversity of income and a niche in the community for these farmers.











Community Supported Agriculture (CSA)

Community Supported Agriculture (CSA)

"Since our existence is primarily dependent on farming, we cannot entrust this essential activity solely to the farming population--just 2% of Americans. As farming becomes more and more remote from the life of the average person, it becomes less and less able to provide us with clean, healthy, lifegiving food or a clean, healthy, lifegiving environment. A small minority of farmers, laden with debt and overburdened with responsibility, cannot possibly meet the needs of all the people. More and more people are coming to recognize this, and they are becoming ready to share agricultural responsibilities with the active farmers." Groh Trauger & S.H. McFadden

Consumer Supported Agriculture (CSA) (sometimes known as subscription farming) is an old farming idea that has been gaining momentum since its introduction to the United States from Europe in the mid-1980s. The concept originated back in the 1960s in Switzerland and Japan where consumers were interested in safe food and farmers were seeking stable markets for their crops. CSA's are a partnership where a community of individuals pledge support to a farm operations so that the farmland becomes, either legally or spiritually, the community's farm, with the growers and consumers providing mutual support and sharing risks and benefits of food production. Typically, members or "share-holders" of the farm or garden pledge in advance to cover anticipated costs of the farm operation and farmer's salary in return for farm bounty's throughout the growing season. This could include a box (bag, basket) of seasonal produce each week throughout the farming season. This also allows members to reconnect to the land and participate directly in food production. Members also share in the risks of farming, including poor harvest due to unfavorable weather or pests. All CSAs take a shared commitment to building a more local and equitable agricultural system, one that allows growers to focus on land stewardship and still maintain productive and profitable small farms.



Community Agriculture



Some of the rewards to farmers and to members are:

Advantages to Farmers:

- Get to spend time marketing the food early in the year, before their 16 hour days in the field begin
- Receive working capital in advance early in the season, which helps with the farm's cash flow
- Receive better prices for their crops
- Gain financial security
- Help relieve some of the burden of marketing
- Guaranteed direct market for farm products
- Have an opportunity to get to know the people who eat the food they grow

Advantages to Members:

- Eat ultra-fresh food, with all the flavor and vitamin benefits
- Get exposed to new vegetables and new ways of cooking
- Exposure to a diversity of vegetables, fruits, and herbs in season;
 some providing a full range of farm produce, including shares in eggs, meat, milk, baked goods, and even firewood
- Usually get to visit the farm at least once a season

- Find that kids typically favor food from "their" farm even veggies they've never been known to eat
- Develop a relationship with the farmer who grows their food and learn more about how food is grown

A CSA is a great way for small local farms to gain support in their farm and create a sustainable, self-reliant system where community is fostered. .

Trauger M. Groh and Steven S.H. McFadden, Farms of Tomorrow. Community Supported Farms, Farm Supported Communities. Kimberton, PA: Bio-Dynamic Farming and Gardening Association, 1990. p. 6

USDA National Agricultural Library http://www.nal.usda.gov/afsic/pubs/csa/csadef.shtml





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"Men cannot labor on always. They must have recreation." - Orville Dewey

As Mr. Dewey, an American theologian has stated above, recreation can be considered as a basic need of human beings after lodging, food and clothing, in-order to function properly.

Similarly a Civic center is a common place / center where the members of a community can gather for physical, social, or cultural activities. Civic Institutions are regarded as,

- A civic tools for community needs
- **Community Anchors**
- **Great Public Places**
- Partnerships for Improvement
- Social Cohesion



Source: http://www.pps.org/reference/civiccenterssolutions-2/



In this 21st century, people are more concerned with health and fitness and are engaged with their physical fitness. Welby lacks a community center that can bring people of all ages and all groups together. Civic and recreation centers are a must for every town to cater the needs of its people. The sizes and amenities in this kind of center is based on the size of the towns and population, the growth trend, and future capacity to accommodate the growth etc.

In general the Civic and recreation center needs the following facilities:

- Ι. Library
- Parks and parking spaces II.
- Multi-purpose Hall with provisions for the following activities far as possible:
 - Community meeting room
 - Fitness Classes
 - Lounge Spaces
 - Indoor Club Sports
 - Squash / Racquetball Courts
 - Basketball / Volleyball Court
 - Badminton / Netball / Table Tennis court
 - Changing Rooms / Locker Areas
 - Swimming pool (outdoor or indoor)

Instructor: Korkut Onaran, PhD





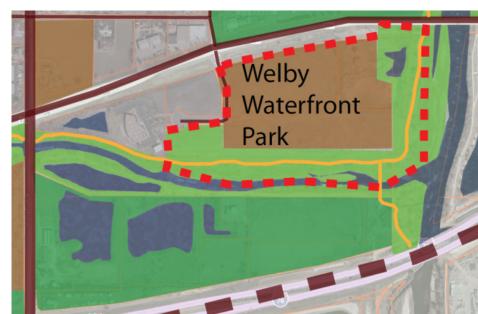


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Welby Waterfront Park is an example of a possible targeted mixed use development to plan for where future development would be targeted to go in the Welby area. The area proposed is south of CO-224 and north and west of the confluence of Clear Creek and the South Platte River. The main focus of the development would be the Waterfront Park. This could be similar to Confluence Park in Denver, providing access to the rivers allowing people to play in the water during warm weather. The current bicycle trail along the water would be retained, and a boardwalk added even closer to the water's edge. A large grass field would be part of the park, providing opportunities for recreation similar to Washington Park in Denver.

Also as part of this development would be mixed use buildings with retail on the first floor and apartments or condos above. These buildings would be four or five stories maximum height to prevent large towers from being erected, but would also allow for a density concentration that would preserve most of the agricultural land for agriculture. Retail businesses would ideally also be connected to the agricultural nature of the Welby agritourism industry, though more typical retail as the market demands would also be welcomed to provide economic development. The apartments above would fill the future need for the growth and expansion of housing in Welby while preventing the sprawl of low density housing.







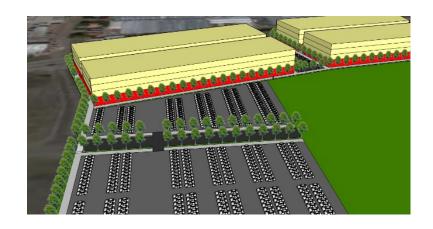






Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa INSTRUCTOR: KORKUT ONARAN, PHD







Welby Framework Plan

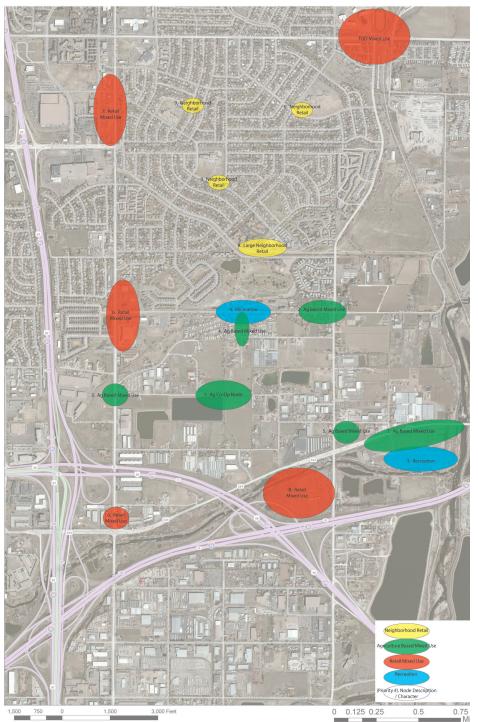
Summary & Future Nodes / Bicycle Trails

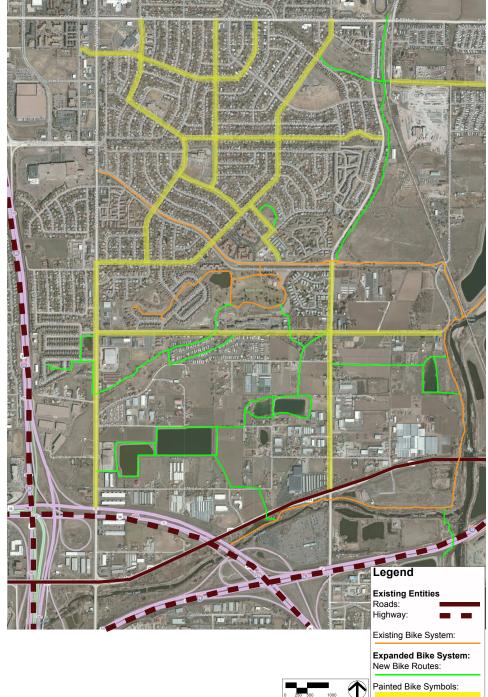
The proposals we have described in the previous pages are what we envision to be the beginning of the future sub-area plan for Welby. There will continue to be increased growth pressure because of population growth and low prices, so even beyond our initial proposals we must look further into the future.

Seen to the right is an example of future possible targeted node development. These are areas where developed should be directed to preserve the open and agricultural land as much as possible. These nodes will be pockets of increased density that will provide many of the needed neighborhood amenities that are currently lacking in the Welby area. Blue and green circles indicate the recreation and agriculture nodes associated with the food trail, while red indicates a larger mixed use retail and residential node, and yellow represents a smaller neighborhood amenities node.

The bicycle trail map to the far right also shows the full trail and bicycle lane network envisioned to allows residents to more easily access every parts of Welby without their car. The improvements will begin with the southern portion, but also continue into the northern portion of Welby.

In total, these ideas represent only a fraction of what is possible if the residents and county are fully committed to making Welby a vibrant community. The residents themselves may have additional ideas that will emerge through more community meetings and hearings, and these should be included with high priority. We recognise that no one person, no one organization has all the answers to meet every need. That is why this sub-area framework plan is intended to be a framework for future planning projects to either develop or reject our ideas based on what is best for the community. We believe Agritourism, the Welby Food Trail, and the rest of the ideas presented here will be an valuable addition to the community, once again making it a vibrant community.







Appendix C: Research

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Wineries



Aquaponics



Wildlife / Bird Watching



Horse Back Riding



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Section Three



- Introduction
- Optional Zone Concept
- Why Family Farms?
- Family Farms Village District
- Family Farms Cottage District

Welby Framework Plan

- Goals
- Support Networks
- Conclusions











As a step to fulfill these desires, Studio I's work proposes two Optional Zone Districts (OZD). These two separate districts - the Welby Family Farms Village District and Welby Family Farms Cottage District, are the main focus of Section Three.

The guidelines and examples laid out in this Section strive to help Adams County provide the following opportunities in Welby:

- Preserve Welby's agricultural lands
- Foster economic revitalization
- Celebrate the area's history and identity
- Create a more livable neighborhood



Welby Gardens Established in 1948

Introduction

Juan Sabogal

Welby faces the challenge of promoting economic growth while maintaining the resident's quality of life and strong sense of identity. To address this challenge, the Adams County Planning and Development staff began a collaborative effort with the Welby Community and the University of Colorado at Denver (UCD) Masters of Urban and Regional Planning students to plan for future development in the area. This process began with a dialogue to identify residents' priorities.

As a community with a rich agricultural tradition tracing back several generations, one of the themes that arose out of the conversation was the preservation of Welby's agricultural identity and heritage. At the same time, the area residents voiced their concern about the area's economic vitality and asked for options to foster growth without changing the agricultural character of the neighborhood.

With these concerns in mind, the students of the Studio I course embarked on a final project with the aim to preserve Welby's agricultural lands and identity while creating a vibrant economic climate that will foster appropriate businesses in the neighborhood.



Instructor: Korkut Onaran, PhD

Workers in a Sugar Beet Field Denver Public Library Call No. CHS.X7847

Optional Zoning District Defined

Juan Sabogal

MICHELLE CAPRIOLI, DAVID CARSON, MATTHEW CHRISTOFF, SARAH DOYLE, MATTHEW DUBOSE, GENEVA FAULKNER, CAITLYN KLEIN

NICHOLAS NELSON, KELSEY REEVES, LISA RITCHIE, SHANE ROBERTS, JUAN SABOGAL, PHILLIP SUPINO, & MACHHENDRA THAPA

An Optional Zoning District (OZD), also known as a Floating Zone, "delineates conditions which must be met before that zoning district can be approved for an existing piece of land... It provides flexibility for developers, who can use the zone to obtain density bonuses, height extensions, etc., in exchange for meeting other requirements or goals in the floating zone.¹"

An OZD, therefore, grants development rights to land owners who fulfill the prerequisites and rezoning criteria determined in the optional zone code. This optional code defines land uses, densities, existing conditions, transportation networks, and other requirements prior to consideration of adoption of the OZD on any given parcel. It is essentially the same as any other zone district's requirements, with the exception of identified and specific location.

If a landowner meets the qualifying conditions, they may opt in and apply for the OZD to be applied to their parcel. This effectively increases development opportunity on a parcel that would have limited development rights prior to the adoption of the OZD.



Why Family Farms Districts?

Considerations for the Adoption of Welby Family Farms Districts *Lisa Ritchie*

When determining the application of Welby Family Farms
Districts, the following considerations apply to the two concepts:

Locational Considerations

The OZDs have specific standards for land use percentages, access requirements, building densities and other criteria that must be accommodated within their design. Certain parcel-specific characteristics and natural amenitites, such as water or trails, may be taken into consideration to change the requirements. If such a consideration exists that would be deemed beneficial for the community, open space or other access considerations may be increased.

• Residential Must Be on the Periphery of the Zone

In order for the residential areas to be served by public improvements, such as streets and utilities, homes must be on the periphery of the parcel. This serves the additional benefit of accommodating the agriculture as one unit on the interior of the parcel, without the daily interference of residential activities.

• Agriculture Must Be Given Priority

As one of the main goals of this section is the preservation of agricultural heritage and identity, agricultural use on the parcel must be given priority. This includes access for vehicles and farm equipment, water rights, the best soils, and solar exposure.

• All Residences Must Be Within 1/4 Mile of a Community Garden

This section will later describe the proposed land uses for both OZDs, including a Community Garden or Shared Space. All residences must be within walking distance, typically considered 1/4 mile, of the community garden or shared space. This will foster connectivity and community within the development.

Access to the Welby Family Farm Village District must be on Arterial Streets

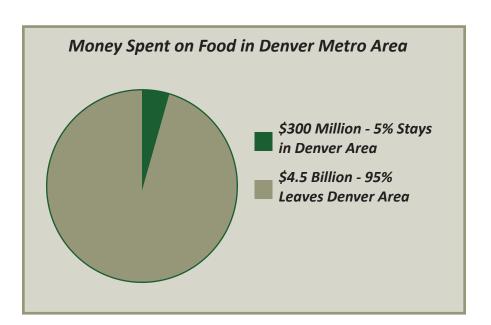
To enable the best access, visibility, and network required of a mixed-use development, all proposed Village Districts must border on at least one side an arterial street in Welby.

Our Unsustainable Food System

Shane Roberts

The adoption of OZDs centered on agriculture preservation is advantageous for Welby on many levels—one of which is by remedying some of the effects of our unsustainable food system.

On average, the food we eat in the Denver Metropolitan Area (DMA) travels 1,500 miles before we purchase it², making us highly dependent on fossil fuel in order to eat. A study from Iowa State University found that if Iowa (whose population is only slightly larger than the entire DMA) increased its consumption of regional produce by just 10% they could save 300,000 gallons of fuel annually and it would reduce CO₂ emissions by 6.7 million pounds³. In addition to the high cost of transporting our food, current food prices promote unhealthy eating habits among low-income families. In fact, eating a healthy low-calorie diet can be up to 10 times as expensive as an unhealthy calorie-dense diet⁴. The cost of our food system, however, is not limited to our ecosystem and individual health, but is also holding back the DMA from receiving millions—if not billions—of dollars in potential revenue. Of the \$5.7 billion that is spent annually on food in the DMA only 5% (\$300 million) of that stays in the region, while the remaining 95% leaves⁵.



Proposed Alternatives

Shane Roberts

A food system that relies primarily on locally-grown and locally-sold food can help to remedy the aforementioned problems. A comparison done by the Ferry Plaza Farmers Market in San Francisco shows that on average food sold in their farmers market traveled only 9% of the distance traveled by its counterpart in a terminal market setting⁵ This means that more farmers markets could lower fuel consumption and CO2 emissions. Locally-grown food can also help cure some of the social ills brought on by our current food system. A study from the Leopold Center suggests that most of the food sold at farmer's markets is less expensive than its counterpart sold in a terminal market⁷.





ROYER'S

COFFEE



This could help lowincome

families and individuals have healthier diets. From an economic perspective locally-grown food has potential to help the DMA to benefit immensely. Though it is not realistic to think locally-grown food can capture all of the \$5.7 billion we spend on food, there is opportunity for Welby to capitalize. If individuals in the central Iowa region (1/5 the size of the DMA) ate 5 locally-grown items of produce a day for 3 months out of the year, the region could make an additional \$6.3 million annually. If a similar goal were set for the DMA, it is not unreasonable to think at least that much could be made here.



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Why Family Farms Districts?

Benefits of Family Farms Village and Cottage DistrictsShane Roberts

If Adams County were to implement OZDs like Family Farms Cottage District and Family Farms Village District, the area could profit from an emerging segment of the real estate market that centers around locally-grown food and community supported agriculture (CSA) (see examples in Framework Plan 1: Healthy Welby). Once there are a few acres of operational farmland devoted specifically to locally-grown food, Welby can begin to attract people from surrounding counties and municipalities who want to shop at a farmers market. As the DMA inevitably grows, Welby will begin to attract people to the area who want the conveniences of living near a city and the experience of being a part of a functional farming operation or CSA. If Welby Family Farms Districts are developed it has the potential to attract revenue from produce sales. This can lead to more people wanting to be part of an agricultural based new community, and may bring more development and income to the area. Welby Family Farms Districts can help spur development in Welby, preserve its farming heritage, and bring in revenue and tax base all while fulfilling the goals outlined in the Imagine Adams County Plan.

Additional Benefits

Shane Roberts

In addition to the aforementioned benefits, below are some other potential benefits that could come from Welby Family Farms:

- Solve land conflicts by being placed in the "buffer area".
 (see Framework Plan 1: Healthy Welby)
- Preserve the heritage of Welby
- Preserve desired land uses in a dynamic region of Colorado
- Preserve Agriculture and Open Space
- Mitigate some externalities of our unsustainable food system

Family Farms Village District

Matthew Dubose

Family Farms Village District is a type of Mixed Use zoning, which is increasingly being included as part of suburban and rural frameworks plans. In traditional and urban settings, mixed use developments promote a diverse mix of uses and housing varieties, a strong neighborhood identity, and walkability. In suburban and rural settings, mixed use developments can discourage big-box stores, and industrial sprawl, and protect the small town living citizens outlined during community discussions.

Zoning suburban and rural regions for mixed use is perhaps even more crucial. Land, typically farmland and open space, is often scarce. Mixed use developments focus on clustering housing, productivity, and entertainment to preserve as much land as possible. These zones also prioritize the needs of people rather than automobiles, creating a lively atmosphere. A Family Farms Village District for Welby aligns with the vision set out by Adams County in its comprehensive plan.



Berwyn Avenue, Chicago Illinois - www.chicagotribune.com

Eligibility

Matthew Dubose

To preserve the rural nature of Welby, eligible land for Family Farms Village Districts will be bound by a specific land acreage, location, land use, and alternative transportation methods to the automobile. Due to the developed residential nature of the northern portion of Welby, little opportunity is available for new growth. The south is much more attractive for development as well as preservation where vast farmland and open space currently lie. Although new development may be limited to the south, economic growth will create a "ripple" effect for the north.

Land Use Mix

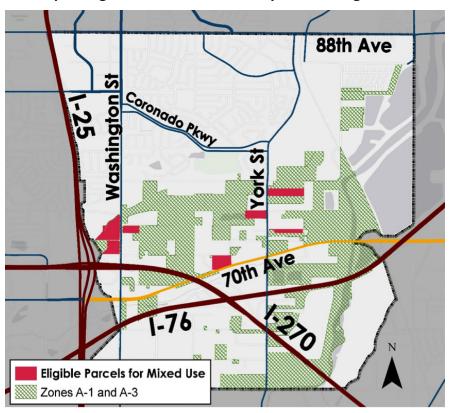
"A more detailed Future Land Use map is needed for the Welby area to guide the appropriate mix, intensity, and distribution of land uses over the next ten to twenty years. While the countywide Future Land Use map designates much of the area as Mixed-Use Employment (See Table 5.1—Land Use Categories for definition), a more refined delineation of uses is needed at the subarea level. This will require a parcel-by-parcel analysis of established uses and opportunity areas and in depth discussion with area residents and property and business owners. Until a more detailed land use plan can be developed additional development should be carefully evaluated to minimize future conflicts." - Adams County Comprehensive Plan

Mixed use OZDs are most suitable along infrastructure that can sustain higher levels of traffic-whether automobile, bicycle, or pedestrian. Therefore a Family Farms Village District must border a major or minor arterial such as Washington, 70th Avenue (CO 224), or York. An existing or proposed bike trail must also pass alongside or through the land to compliment density. The size of the land must be between 4.5 to 15 acres and zoned for agriculture (A-1, A-2, or A-3) for a landowner to opt in. This helps ensure land most susceptible to encroaching industry (primarily land north of 70th Avenue), grows while preserving its farming roots.



Family Farms Village District

Map of Eligible Parcels for the Family Farms Village District



Requirements

Matthew Dubose

Mixed use zones come in all shapes and sizes. Welby needs a district that will bring in new residents, shoppers, employees, and community space without jeopardizing local heritage. The districts' uses and character should largely relate to landmarks and areas of significance in Welby. Development should primarily provide benefits to locals in the form of amenities, commercial space, and civic space. A mix of land uses in the form of residential, retail, office, civic, community garden, and preservation each should have minimum and maximum allowable coverage in the district.

The following table denotes the land use percentages allowed in the Family Farms Village District.

Land Use Type	Minimum	Maximum
Civic	3%	5%
Retail or Office	4%	6%
Residential	9%	11%
Community Garden/Shared Space	3%	4%
Agriculture	75%	80%

Civic space and commercial space need to front the arterial to draw in passers-by. Street level activity in the form of ample sidewalks, bike trail connections, signage, and patio seating creates a lively atmosphere where people can relax. Boyer's Coffee provides a third place where someone can sit and relax on a lunch break rather than speeding through Welby.

Within a lively mixed use district, someone can stop off from their bike ride home and pick up dinner ingredients at a community farmer's market. Handpicked vegetables from adjacent agriculture, meats, and other locally produced items are all found in a potential community center occupying civic space of an optional district.

> An active commercial and civic frontage compliments new avenues within the Welby Framework Plan. Building orientations should compliment neighboring units while framing the streetscape. Parking is the responsibility of the developer and should be tucked away underground, structured, or behind buildings. Bike-share stations are suggested for eligible land within 3/4 of a mile to a trail. Compact development is encouraged and must be visible from the street. Density ensures land is utilized efficiently and a closely

communities can thrive. Commercial space should be at ground level along the arterial with residential living above in a range of 2-4 story structures. A maximum vertical length for each floor is also necessary. A minimum of 10 dwelling units per acre on row homes behind commercial and civic space acting as a transition into preserved land. A maximum of 25 dwelling units per acre is best for residential space above commercial in mixed use buildings.

Concept - Family Farms Village District Nicholas Nelson



The photo above is a real parcel located on Highway 224 in Welby midway between Washington Street and York Street, and is currently 8.03 acre parcel zoned as Agricultural land. The image is a massing study showing a possible breakdown of our allowed uses within the parcel.

The image on the following page is another real parcel located on Washington Street immediately south of 75th Avenue. The parcel is 4.81 acres and the massing study show uses and percentages for the parcel.







Family Farms Village District Models



Using Google Sketchup with Google Earth and ArcGIS, an image of the parcel was brought in to Sketchup for further development. Using the same massing as the previous image, buildings were overlaid on the parcel to show a model of what this "Village" could look like. The building fronting Washington Street is a mixed-use building which would have retail shops or restaurants on the ground floor, with either residences or offices above. The other structure fronting the street is a Civic/Community space which could house a farmers' market or similar use. The Community Garden divides the developed portion of the parcel and multi family residential fronts the alley, as well as the preserved agricultural land.









The model clearly shows that 30+ dwelling units per acre are achievable while allowing space for the community to gather. The development this model supports can be appealing and functional, while granting limited development rights to help preserve precious agricultural land in Welby.

Instructor: Korkut Onaran, PhD

Family Farms Cottage District

Kelsey Reeves

In addition to the Mixed Use Village District, we propose another OZD, the Family Farms Cottage District. This district provides a new residential opportunity for Welby that supports an agrarian lifestyle for both existing and new residents. Family Farms Cottage District achieves the following objectives as laid out in the Welby Framework Plan:

- Enhance resident quality of life by eliminating land use incompatibilities and putting health, safety and welfare of citizens foremost
- Promote of sustainable growth patterns through preservation of agricultural land as well as coordinated and connected growth
- Foster economic growth and prosperity locally through appropriate land use planning
- Affirm Welby identity, sense of place, and sense of community

Requirements

Lisa Ritchie

MICHELLE CAPRIOLI, DAVID CARSON, MATTHEW CHRISTOFF, SARAH DOYLE, MATTHEW DUBOSE, GENEVA FAULKNER, CAITLYN KLEIN

NICHOLAS NELSON, KELSEY REEVES, LISA RITCHIE, SHANE ROBERTS, JUAN SABOGAL, PHILLIP SUPINO, & MACHHENDRA THAPA

The following requirements must exist prior to the adoption of this OZD on any parcel.

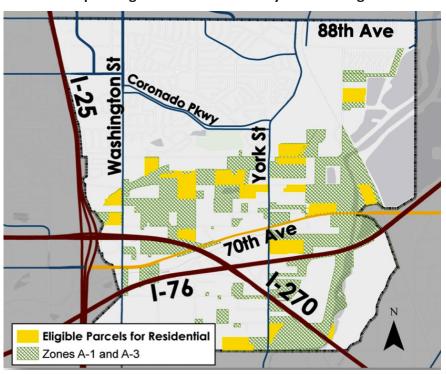
- Proposed land must be zoned Agricultural. Industrial zoned land may be considered if current Land Use is consistent with Agricultural zoned land
- Proposed parcel must be between 5 and 15 acres
- Proposed land must have access to "Local" or "Collector" street networks for the residential area
- Agricultural use must be given priority within the district, including water, access, soil, etc.

The following map was developed showing the parcels in Welby that qualify for the OZD as defined above.



Family Farms Cottage District

Map of Eligible Parcels for Family Farm Cottage District



Idealized Model

Kelsey Reeves

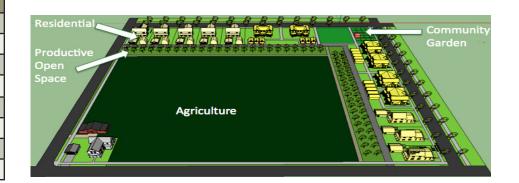
The Ideal Model lays the groundwork for land use within the zone by allocating specific percentages to each type of acceptable land use. The table below describes percentages of acceptable land use by parcel acreage for the Family Farms Cottage District.

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Land Use Type	5-10 Acre Parcel	>10 Acre Parcel			
Residential	26%	23%			
Multi-Family	13%	11%			
Large Single Family	4%	4%			
Small Single Family	9%	8%			
Agriculture	54%	57%			
Productive Open Space	14%	14%			
Community Garden	3%	3%			
Right-of-Way	3%	3%			

Agricultural land is preserved by setting a minimum preservation threshold and incorporating open space for productive uses such as orchards. The open space areas also create connectivity within the zone by allocating space to trail systems which can then connect to the existing primary trail networks within Welby. A multi-modal transportation network is essential to promote connectivity within Welby. The Productive Open Space trail system must also have connections to the sidewalk system within residential development. Residential land use is limited and broken into three sub-categories: Multi Family, Small Single Family, and Large Single Family. All homes will front the street and garages/utility needs will be addressed by an alleyway system. The zone is designed in a way which provides space allowances for alley right-of-way which serves the utility of a farmed area as well as the surrounding residences. The entire residential area averages only 8 dwelling units per acre, a density that fits the rural character of the Welby area. Community Garden/Shared Space is positioned in the parcel in such a way that the entire community is within 1/4 mile walking distance to the space. This same space allows for the incorporation of community facilities that accommodate markets, community gatherings, and any other needs of the community.

Concept - Family Farms Cottage District *Kelsey Reeves*

The photo below reflects the idealized model as applied.



The two photos below display the residences in the OZD, with small setbacks, on-street parking, and tree lined streets. The rear of the homes have private yards with alley access.





The next two photos display the community garden, the heart of the OZD.







Family Farms Cottage District Models

Family Farms Cottage District Modeled on Real Property Shane Roberts & Lisa Ritchie

As we experimented with actual parcels in Welby we selected this parcel at 8290 Steele St. because of its rectangular shape.



In a bird's eye view, the parcel's layout is shown as if you were looking north.

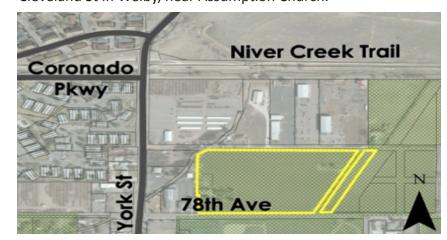


Oriented toward Steele St. are the single-family homes that each have a small garden plot to help support the larger farming operation that lies on the eastern portion of the parcel. The purple building in the middle is a community center that could be used for a variety of functions from community events to community-run farmer's markets. Surrounding the community center are community garden plots that would allow people in the medium density units (located east of the single family homes) to have the same community garden privileges despite

not owning a home. Between the two medium density housing units is a large open space that is nearly the size of a football field and serves as a park. Separating the residential and community spaces from the farming space is a long strip of trees that makes up an area of Productive Open Space. This area will contain fruit trees that serve both as a noise buffer between farming and housing and as another source of produce. There is a one-way alley system surrounding the housing area that allows people to get equipment to the farming area while simultaneously limiting vehicle access and speed in an effort to encourage walking and bike riding on the site.

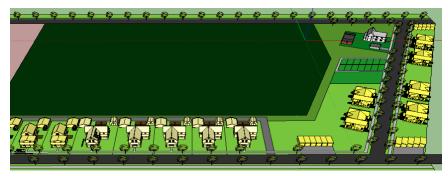


The next parcel modeled is located at 78th Avenue and Cleveland St in Welby, near Assumption Church.



Again, the residences are aligned on the street, with the existing farm and agricultural use preserved.

Instructor: Korkut Onaran, PhD



The next photos show additional views within the model. The Community Garden is again the heart of the OZD, within walking distance of each residence. Productive Open Space increases the agricultural use of the parcel, in order to support the goals of agricultural economic development, preservation of Welby's heritage and identity, and the promotion of sustainable land use patterns.





MICHELLE CAPRIOLI, DAVID CARSON, MATTHEW CHRISTOFF, SARAH DOYLE, MATTHEW DUBOSE, GENEVA FAULKNER, CAITLYN KLEIN

NICHOLAS NELSON, KELSEY REEVES, LISA RITCHIE, SHANE ROBERTS, JUAN SABOGAL, PHILLIP SUPINO, & MACHHENDRA THAPA



Goals, Support and Conclusion

Goals

Lisa Ritchie

To summarize the work presented in Section Three, the following goals were fundamental in this effort.

- Build vibrant and attractive communities
- Preserve Welby's agricultural heritage and identity
- Promote economic development through agriculture
- Promote equitable food access
- Implement a multi-modal transportation network

Local Organizational Support Network

Kelsey Reeves

Welby has the unique advantage within the Denver Metropolitan Area of partnering with many organizations that can serve as a local support network. Organizations such as Feed Denver, Denver Urban Gardens, Produce Denver, and many more are already heavily involved in urban farming education, training,

and development of a sustainable local food network. They all work to better establish and enhance the Denver areas fresh food production and create direct markets to consumers. These organizations pride themselves in solving critical social issues such as food access, declining economies, while enhancing quality of life, fostering physical and mental health, and empowering local-level

economic independence.







Conclusion

Shane Roberts

Despite more than a half century of urban decentralization in the United State people are returning to the city. All evidence suggests that Denver and the surrounding communities will continue to grow. In fact, one projection places the population of the DMA at 3.5 million people by 20308. This means that Welby will also grow. If measures are not taken to plan for this growth then Welby residents will likely continue to experience the same dissatisfaction with development patterns. However, Welby has a unique set of characteristics that make it ripe to benefit from an agriculture-based economy. There seems to be an emerging segment of the real estate market that is centered on agrarian urbanism and agriculture and Welby having a heritage based in agriculture—may be just the spot for the latest agriculture based urban development to appear. At the same time Welby can begin to reinvent its image, preserve what residents feel is desirable, and become a hotspot for agritourism. By employing the Family Farms Village or Cottage Districts —or at least the principles that make up their foundations—Welby can become a thriving part of the DMA that bolsters a vibrant community, a growing economy, and a pristine ecosystem.



Final Document Compilation

Lisa Ritchie

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Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa. Instructor: Korkut Onaran, Ph.D.



Welby Sub-Area Plan Studies

URPL 6630 & 6631: Planning Studio 1 & II College of Architecture and Planning University of Colorado Denver

Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Thapa Machhendra Instructor: Korkut Onaran, PhD

April 29, 2013



Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa . Instructor: Korkut Onaran, Ph.D.



Three groups

Framework plan #1:

Healthy Welby

Framework Plan #2:

Grow Welby

Optional Zoning Districts:

Family Farm Optional Zoning District (Mixed Use) Family Farm Optional Zoning District (Residential)

April 29, 2013



Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa. Instructor: Korkut Onaran, Ph.D.



Framework Plan #1 Healthy Welby

Vision

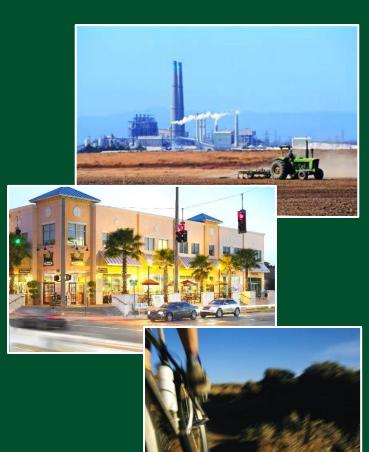
"Welby will be a vibrant mixed use community; an attractive place to live, visit, and invest. This will accomplished through preservation of Welby's unique character and developing new amenities and opportunities."

Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa . Instructor: Korkut Onaran, Ph.D.



Goals

- Mitigate land use conflicts
- Promote vibrant node development
- Preserve and integrate open spaces



Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa. Instructor: Korkut Onaran, Ph.D.



Objectives

Land Use Conflict

- Mitigate current conflicts
- Avoid future conflicts
- Promote organized, compatible development types

Vibrant Nodes

- Focused centers of activity
- Pedestrian and consumer friendly
- New opportunities for development

Open Space & Trails

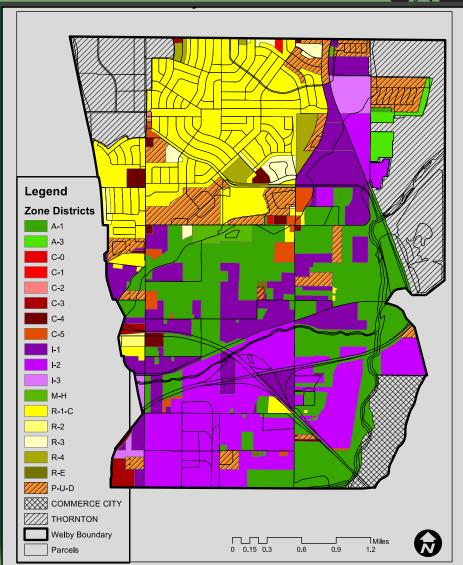
- Plan for desired future condition
- Acquire additional open space parcels
- Expand trail network, including new parcels
- Integrate trails and transportation planning to improve connectivity

Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa . Instructor: Korkut Onaran, Ph.D.



Existing Zoning

- 18 zone districts in Welby area
- A-1, I-1, I-2 & R-1-C are dominant zones
- Numerous A-1 parcels include additional or unpermitted uses



Source: Adams County

Framework Plan #1 - Health Welby

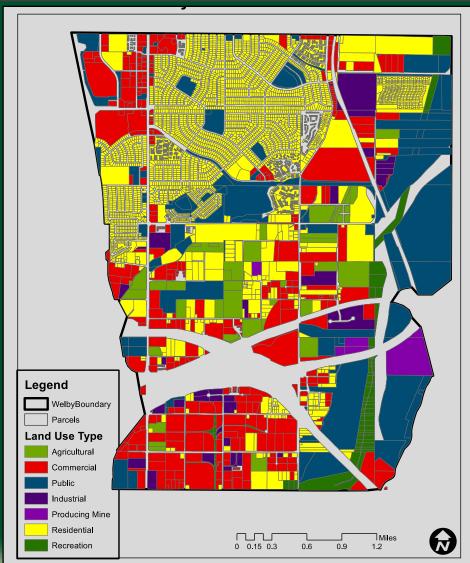
Framework Plan #2 - Grow Welby

Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa. Instructor: Korkut Onaran, Ph.D.



Existing Land Use

- Wide variety of uses
- A-1, I-1, C-1 & R-1-C are dominant uses
- Little order or consistency to land use and development pattern
- Central Welby area with greatest variability in land uses



Source: Adams County

Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa. Instructor: Korkut Onaran, Ph.D.



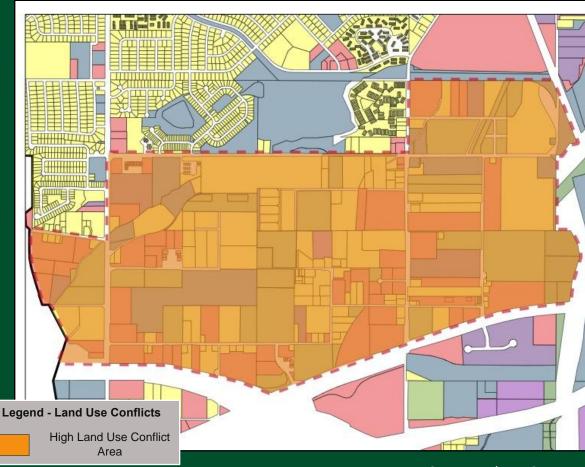
Land Use Conflicts

"The mixed-use nature of this area has led to a lack of clarity and predictability in terms of what is envisioned and permissible in terms of existing and future land uses."

A.C. Comprehensive Plan

"As the diversity of uses in the area has increased over time conflicts between different uses have emerged, such as conflicts between the residential neighborhood and industrial operations."

- A.C. Comprehensive Plan



Source: Adams County

Framework Plan #1 - Health Welby

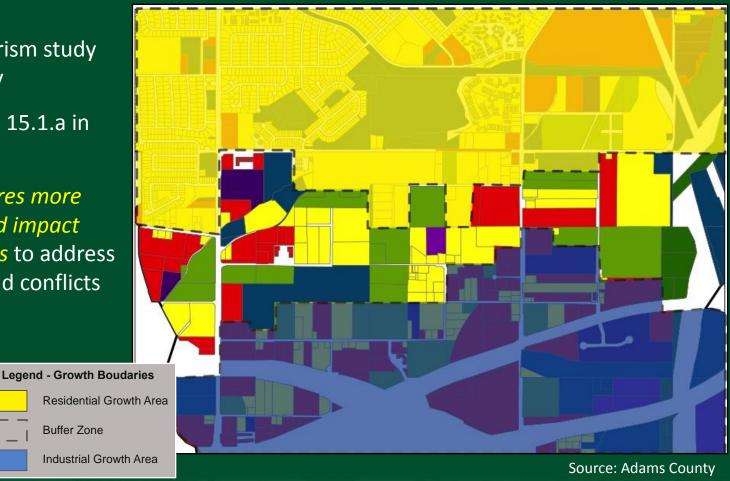
Framework Plan #2 - Grow Welby

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Residential & Industrial Growth Areas

- Similar to agritourism study area north of Welby
- Recommendation 15.1.a in Comp. Plan
- Buffer zone *features more* restrictive zones and impact mitigation measures to address land use impacts and conflicts



Framework Plan #1 -**Health Welby**

Buffer Zone

Framework Plan #2 **Grow Welby**

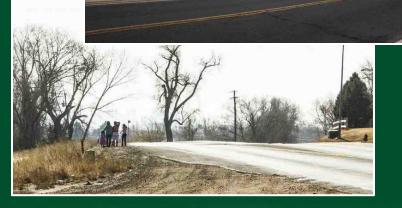
Michelle Caprioli, David Carson, Matthew Christoff, Sarah Doyle, Matthew Dubose, Geneva Faulkner, Caitlyn Klein, Nicholas Nelson, Kelsey Reeves, Lisa Ritchie, Shane Roberts, Juan Sabogal, Phillip Supino, & Machhendra Thapa. Instructor: Korkut Onaran, Ph.D.





Zoning Recommendations

- Make A-1, I-1 and R-1 and other zones less inclusive
- Provide detailed zone "Descriptions" or "Intent" language which provides for the *aesthetic character* of each zone
- Re-zone Central Welby as a "Buffer Zone" between residential and industrial use areas
- Provide mechanisms for land use impact mitigation in "Buffer Zone"



Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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What is a Node?





Left: Highlands Square, Denver

Below: Old South Pearl, Denver





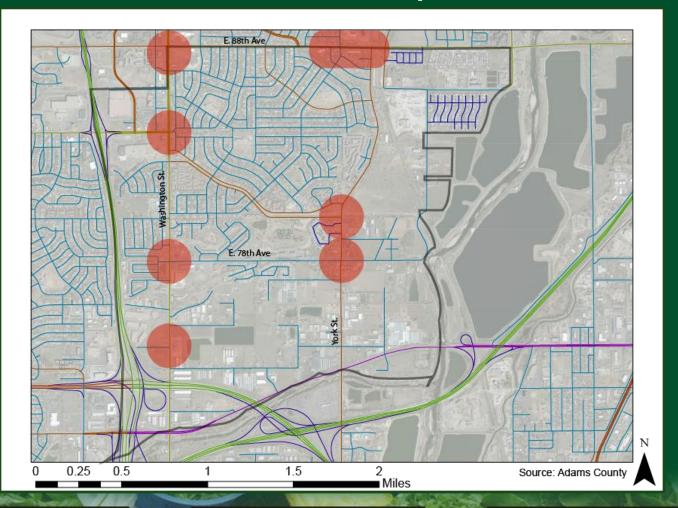
Framework Plan #1 - Nodes

Framework Plan #2 - Agritourism

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Node Map



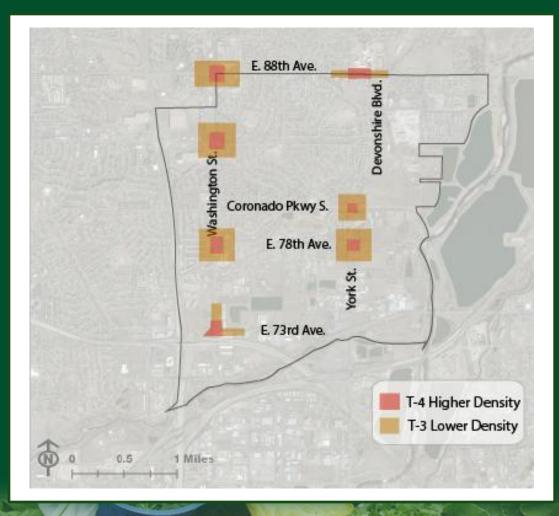
Framework Plan #1 - Nodes

Framework Plan #2 - Agritourism

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Nodes and Corridors



Framework Plan #1 - Nodes

Framework Plan #2 - Agritourism

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Node Transects

 Divided Node portions into transect sectors Focus density along corridor

- Reduce Urbanity further from the node
- Blend development into existing environment

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Node Layout Goals

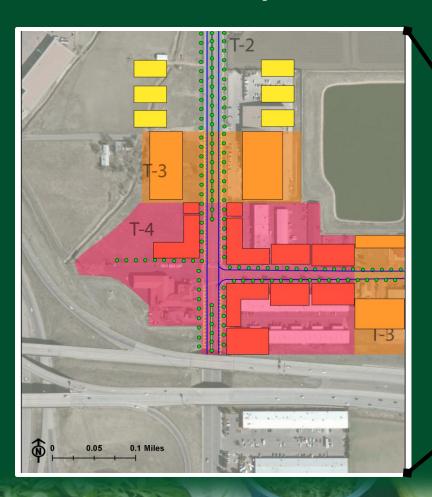
- Traffic calming measures
- Pedestrian safety and consumer friendly
- Improve aesthetic appeal
- Logically integrate existing features
- Create vibrant public spaces

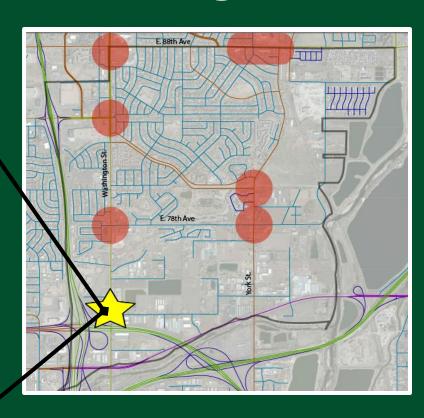


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Node Layout – 73rd & Washington





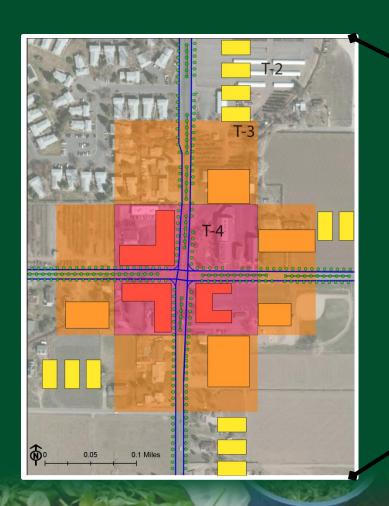
Framework Plan #1 - Health Welby

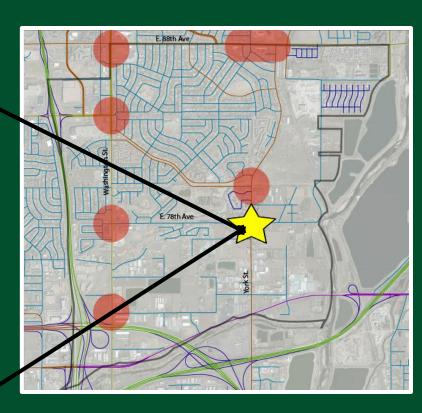
Framework Plan #2 - Grow Welby

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Node Layout – 78th & York





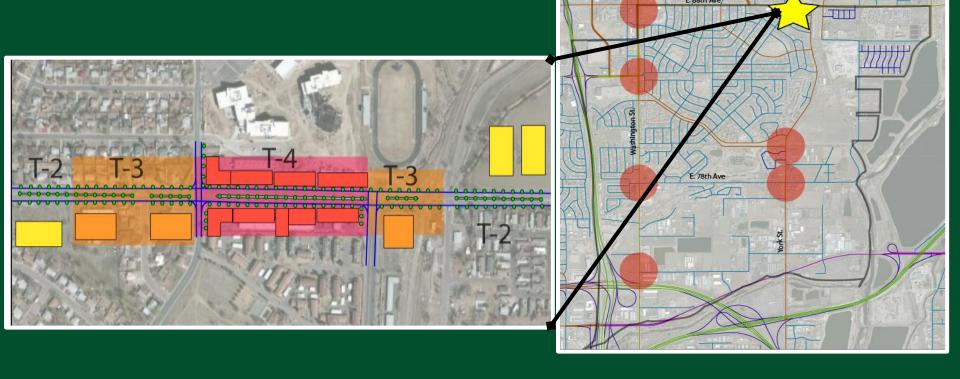
Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Node Layout – 88th near Devonshire



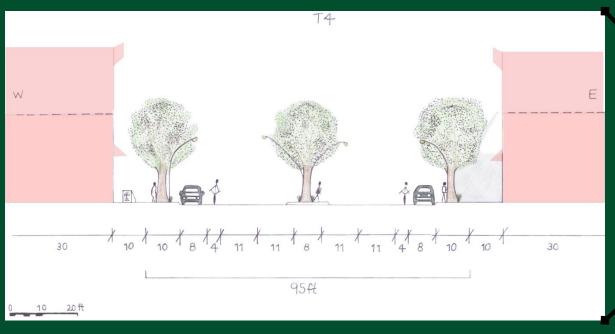
Framework Plan #1 - Health Welby

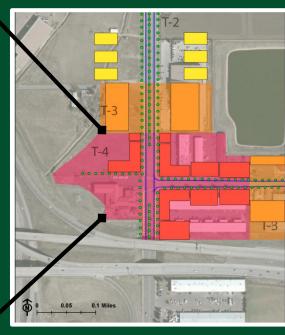
Framework Plan #2 - Grow Welby

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Transect 4: General Urban Core





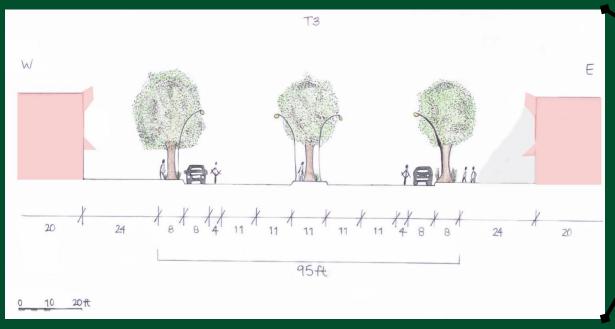
Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Transect 3: Sub-Urban Zone





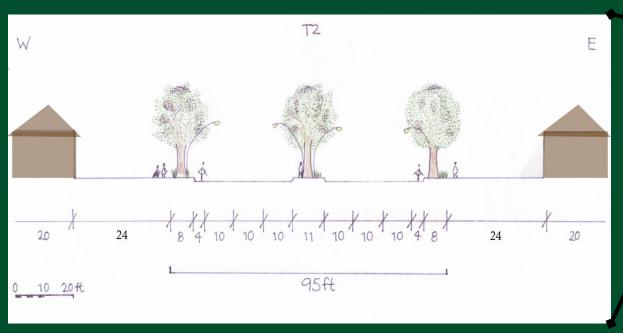
Framework Plan #1 - Health Welby

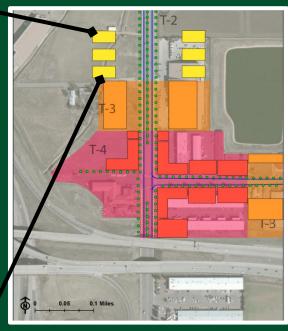
Framework Plan #2 - Grow Welby

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Transect 2: Rural Zone





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Existing Trails & Open Space

- Excellent *regional trail connectivity* to Denver and metro area
- Trails provide *recreational amenity* and transportation infrastructure
- Active conservation program along Platte corridor
- Agricultural uses provide additional open spaces with aesthetic and conservation qualities

Source: Adams County

Legend - Open Space & Trails Existing O.S. Pacels **Existing Trails** Target O.S. Pacels **Future Trails** Water Bodies Rivers, Streams, Ditches

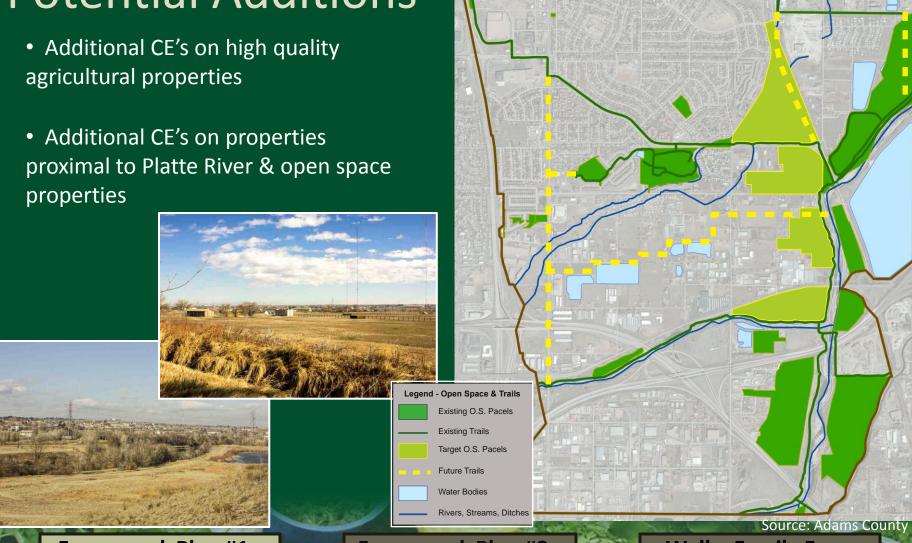
Framework Plan #1 - Health Welby

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Potential Additions



Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Potential Additions

• Provide amenities and improvements



Framework Plan #1 -**Health Welby**

Framework Plan #2 **Grow Welby**



Summary

Land Use Conflict

- Mitigate current conflicts
- Avoid future conflicts
- Promote organized, compatible development types

Vibrant Nodes

- Focused centers of activity
- Pedestrian and consumer friendly
- New opportunities for development

Open Space & Trails

- Plan for desired future condition
- Acquire additional open space parcels
- Expand trail network, including new parcels
- Integrate trails and transportation planning to improve connectivity

Framework Plan #1 - Health Welby

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Framework Plan #2: Grow Welby



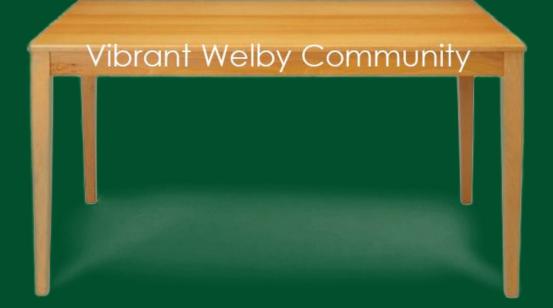


Why: Challenges within Welby

- Conflicting Land Uses
 - Industrial, Agricultural, Residential
- Population Growth in 2040 within Adams County
 - Today at 467,697 grows to 710,240 in 2040
- Limited Access to Local Food

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Framework Plan #1 - Health Welby

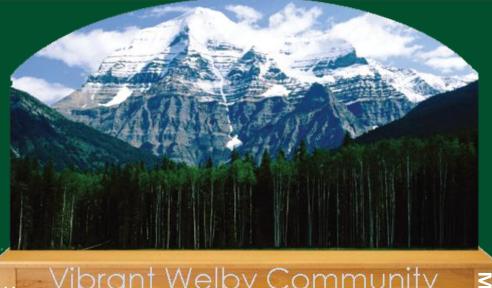
Framework Plan #2 - Grow Welby



Economic Development

> Targeted and limited development

Agriculture **Keep Farming** Heritage



Identity

Make Welby a Destination

Multimodal Transportation

> Choice of Transportation

Framework Plan #1 -**Health Welby**

Framework Plan #2 -**Grow Welby**

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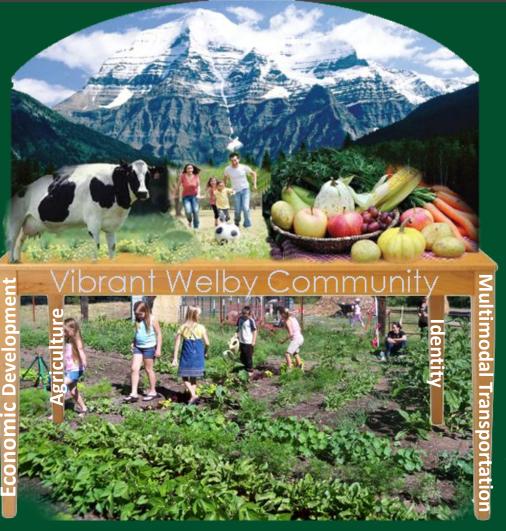
Economic Development

Targeted and limited development

Agriculture

Keep Farming

Heritage



Identity

Make Welby a Destination

Multimodal Transportation

Choice of Transportation

Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Vision: Agritourism

- Why Agritourism?
 - Add Value to your Farm
 - Boost Economic Activity
 - Keep your money Locally

Agritourism: "An enterprise at a working farm, ranch or agriculture plant conducted for the enjoyment of visitors that generates income for the owner." - American Farm Bureau













Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Types of Agritourism

Outdoor Recreation: Ed

Educational Experiences: Hospitality:

Entertainment:

On Farm Direct Services:





















- Fee Hunting
- Fee Fishing
 Camping
- 4. Picnic Areas
- 5. Bird Watching
- Wildlife Viewing &
 Photography
- 7. Horseback Riding
- 8. On-Farm Rodeos
- 9. Skeet Shooting
- Snowmobiling, crosscountry skiing, offroad motorcycling, mountain-biking

- Cannery / Food Processing Tours
- Aquaponics
- Wine-Tasting & Tours
- Microbrewery Tasting
 Tours
- 5. On-Farm Museums
- 6. Cooking Classes
- 7. Bee Farm Operations
- 8. Garden/Nursery Tours
- 9. Agriculture Exhibits
- Working dog trials/ training
- 11. Guided crop tours
- 12. Farm or ranch work experience

- . Overnight Farm or Ranch Stays / Bed & Breakfasts
- 2. Guided Tours
- B. Farm Tours
- 4. Dude Ranch
- 5. Field to Table Restaurants
- 6. Youth Camp
- 7. Special Events:
 Weddings, retreats,
 family reunions,
 meetings

- 1. Harvest Festivals
- Barn Dances, Hoedowns
- 3. Concerts
- 4. Petting Zoos
- 5. Tractor / Wagon / Hay rides
- 6. Sleigh Rides (winter)
- 7. Tractor Pulls
- 8. Exotic Farm Animals
- Hay Bale or Corn
 Mazes
- 10. Pony Rides
- Photography or Painting classes

- Christmas Tree Sales
- Pick-Your-Own Operations (fruits, vegetables, trees, etc.)
- 3. Roadside Stands
- 4. Farmers' Markets
- 5. Agricultural crafts

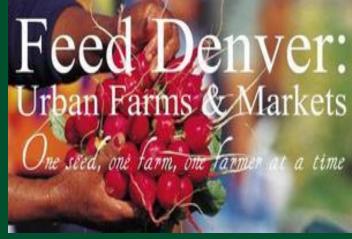
Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby



Agritourism Precedent Studies

- Napa Valley Wine Trails
- Gaia's Farm and Gardens Laporte, Colorado
- Johnson's Acres –
 Brighton, Colorado
- Berry Patch Farms –
 Brighton, Colorado





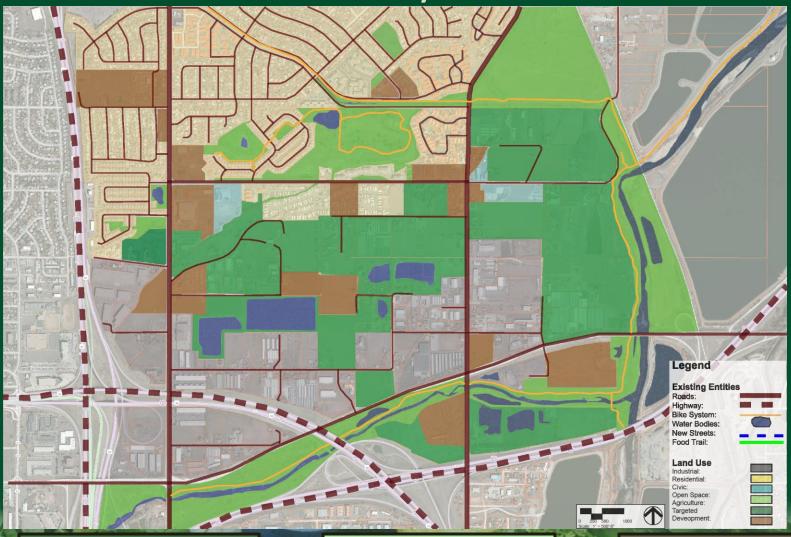
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Location within Welby



Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Location within Welby



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Trail Developmental Rights



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Framework Plan #2 - Grow Welby

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Trail Developmental Rights

Lot Size	Approved Uses	
Large	Semi-industrial Agricultural Industry, Agricultural Cooperative,	
	Lodging, Restaurant, Shop, Stand, House	
Medium	Lodging, Restaurant, Shop, Stand, House	
Small	Shop, Stand, House	



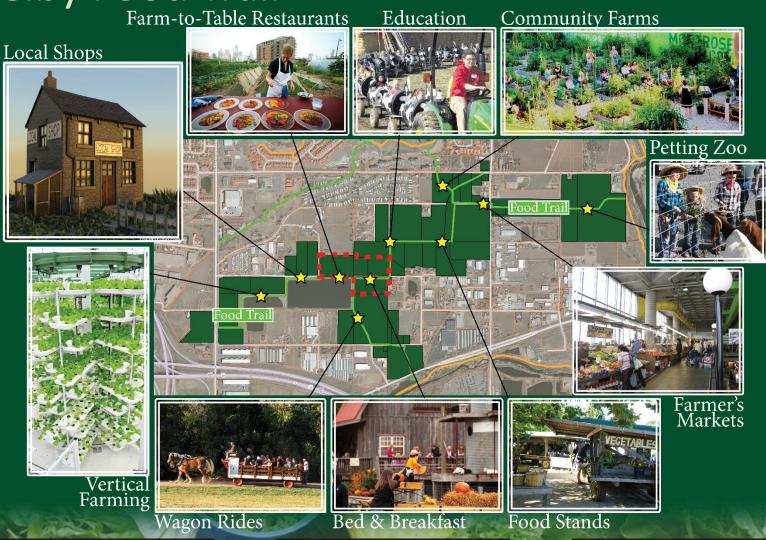
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Welby Food Trail



Framework Plan #1 - Health Welby

Framework Plan #2 -Grow Welby

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Garden Village Location Map



Garden Village Concepts

- Maintain Agricultural Heritage
- Entrepreneurial Diversification Strategy through Agricultural Production
- Community Gardens, Farmer's Market, Boutique Shops with homemade products, bed & breakfast, Educational Tours, Pick-Your-Own Fruits, Agricultural Heritage Museum



Farm Tours & Educational Components



Roadside Stand in Northern Colorado



Pick Your Own Operations



Boutique Markets & Stores

Framework Plan #1 -**Health Welby**

Framework Plan #2 -**Grow Welby**

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Public

Versus

Private Investment

Adams County

- Community Engagement
- Zoning and Regulation (Development Rights)
- Trail Implementation
- Other Supporting Facilities

Private Enterprise

- Development and Food Community
- Infrastructure
- Social Cooperation

Public Private Partnership

- Development of the Garden Village
- Supporting Infrastructure
- Community Programming

Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby



Economic Feasibility

- Small Scale Farming Can Work and be Profitable
 - Example: Polyface Farms in Virginia
 - Free range, pasture grazed chickens, beef, and turkeys. Also eggs and vegetables, public tours, bed and breakfast, and internships
 - If land owners don't want to farm themselves, land could be rented to those interested (individuals, CSAs, etc)

Product	Net Profit	Unit
Broiler Chickens	\$5.50*	Per Bird
Egg Hens	\$15*	Per Bird Per Year
Turkeys	\$12.50*	Per Bird
Cow Milk Production	\$3,350**	Per Cow Per Year

(* inflation adjusted from 1993, ** inflation adjusted from 1998)

Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby



Family Farm Example

- Johnson's Orchards & Peaks of Otter Wineries –Bedford Virigina
 - Winter threatened Apple Production in 1980s
 - Opened the farm to School Groups and Guests for pick-your-own apple activities
 - Family Opened the Farmhouse for Overnight Guests
 - Direct marketing (pick-your-own),
 lodging, and a new winery
 supplement Apple Production



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Partnerships & Grants

- Lisa Schott, MURP with Community Enterprise Farmers' Market
- Denver Urban Gardens
- Grow Local Colorado http://www.growlocalcolorado.org/
- Heirloom Gardens LLC http://eatwhereulive.com/
- USDA Rural Development -<u>http://www.csrees.usda.gov/fo/funding.cfm</u>
- Western Sare Grants http://www.westernsare.org/
- Farm Yard CSA http://farmyardcsa.org/
- Feed Denver http://www.feeddenver.com/
- National Sustainable Agriculture Coalition http://sustainableagriculture.net/publications/grassrootsguide/sustainable-organic-research/agriculture-food-research-initiative/

Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby

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Civic & Recreation Center

Center where the members of a community can gather for physical, social, or cultural activities

(Multi-Purpose Hall)

- Community Meetings
- Fitness Classes
- Lounge Spaces
- Indoor Club Sports
- Squash / Racquetball Courts
- Basketball / Volleyball Court
- Badminton / Netball / Table
 Tennis court
- Changing Rooms / Locker Areas











Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby



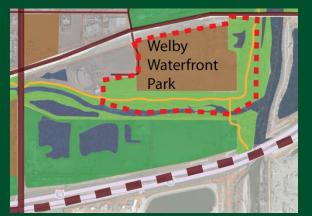
Metro District

- Publicly Finance Improvements
- Finance necessary infrastructure
- Funds operation & maintenance of facilities
 - Mill Levy for Recreation Center
- Special Districts Already in Use:
 - Highlands Ranch
 - Hyland Hills

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Welby Waterfront Park



Aerial Location

- Mixed Use Retail and Apts
- Large Open Green



Southeast Aerial – Open Green and River's Edge



Confluence Park

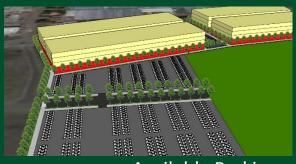
Framework Plan #1 - Health Welby



Boardwalk

Framework Plan #2 - Grow Welby

- Access to the water similar to Confluence Park
- Keep current bicycle trail
- Add boardwalk along the water's edge



Available Parking

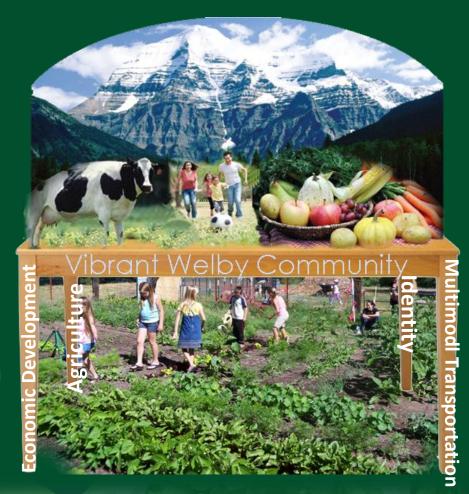


CO-224 Frontage for Buildings



Conclusion

- Economic Development
 - Targeted and limited development
- Agriculture
 - Keep Farming Heritage
- Identity
 - Make Welby a Destination
- Multimodal Transportation
 - Choice of Transportation



Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby



Agritourism Research Documents

- Pastured Poultry Profit\$ by Joel Salatin
- You Can Farm by Joel Salatin
- Brown, Dennis & Richard J Reeder, "Farm-Based Recreation A Statistical Profile" – USDA, Dec. 2007
- Sullins, Martha, "What about Colorado Agritourism." Colorado State University Extension Presentation, April 2010
- Hatch, Dora Ann, "A New Agricultural Business Enterprise Agritourism." LSU Community Rural Development Extension Agency
- Lloyd, Jennifer & Dawn Thilmany, "Enterprise Budgeting for Small Farms: A Market Basket Approach." CSU Extension, July 2008, http://dare.colostate.edu/pubs

Framework Plan #1 - Health Welby

Framework Plan #2 - Grow Welby



Agritourism Research Documents

- Adams County Extension. "What can you grow?"
 http://www.colostate.edu/Dept/CoopExt/Adams/gh/pdf/Small
 GhsePresentation.pdf
- City of Mountain Lake. "Why do we need a Civic Center" http://www.cityofmlt.com/civicCenter/cVcCenterWhy.shtml
- Caroline Fatek. "Shop These Top 10 U.S. Farmers Markets."
 Forbes Magazine
 http://www.forbes.com/sites/forbestravelguide/2012/05/21/shop-these-top-10-u-s-farmers-markets/
- Civic Institutions as Community Anchors
 http://www.pps.org/reference/initiative-civic-centers/

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Optional Zoning Districts: Family Farm Optional Zoning District (Mixed Use) Family Farm Optional Zoning District (Residential)

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Framework Plan #2:
Grow Welby



Optional Zoning District

A proposal in which land owners may opt in and increase development rights

- Developed as any other zone district, with the exception of specific location, a Floating Zone
- Prerequisites and rezoning criteria are determined in the optional zone code
- Defines land uses, densities, existing conditions, transportation networks, etc.

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Welby Family Farms — Optional Zoning Districts

Two New Proposed Zoning Districts

- Preservation of Welby's agricultural identity and history while giving additional development rights
- Creates a Mixed-Use Zone along Arterial streets with Commercial, Office and Residences
- Allows a Residential Zone that promotes an agriculturally oriented new community

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Considerations

- Locational considerations may be accommodated. For example, if the District is close to a natural amenity, such as water or trail, open space may be increased
- Residential must be on the periphery of the District
- Agricultural use must be given priority for access, soil, water and other necessities
- All residences must be within ¼ mile of Community Garden/Shared Space
- Access to the Mixed Use District should be from Arterial streets

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Why Welby Family Farms?

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Our Unsustainable Food System

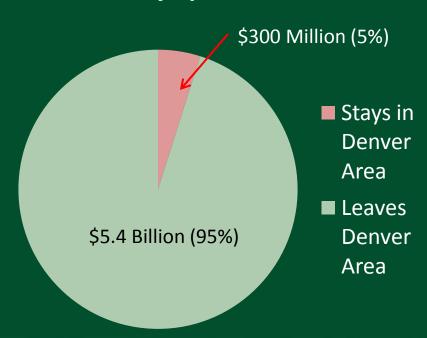
Something Must Change...

<u> Environment</u>

conomy

- In Denver the average food item travels 1,500 miles before we buy it.
- Our Food System promotes the consumption of caloriedense processed food.
- Less than 5% of the money we spend on food stays in the Denver Metro Area (DMA).

Money Spent on Food



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Benefits of Embracing Agriculture

Welby Community Farms could...

- Reduce fuel use by 300,000 gallons annually.
- Increase awareness of the health impacts of our current food system—help reverse national health trends.
- Create \$6+ million of labor income, and nearly 500 jobs within Denver Metro area.



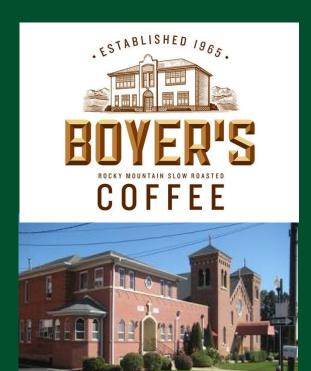
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Why Welby Family Farms?

- A solution to land conflicts
- Great history and resilience
- Changing demographics and preferred land uses
- Changing market
- Goal of Imagine Adams County
- Conserve scarce agriculture and open space
- Bring in outside tax dollars



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Welby Family Farms: Mixed Use Optional Zone & Residential Optional Zone

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Mixed Use Optional Zone

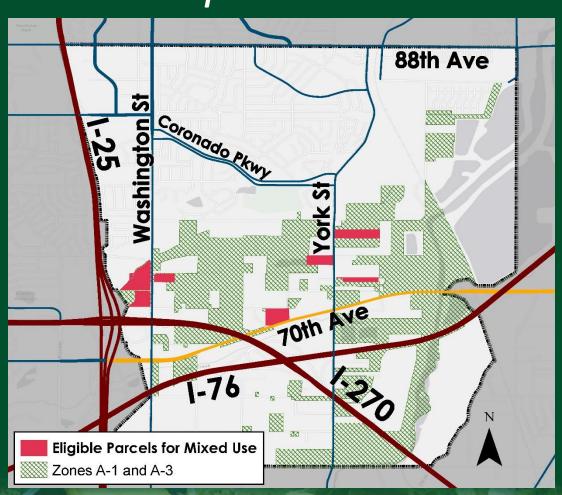
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Eligibility - Mixed Use Optional Zone

- Agriculture and open space
- 4.5-15 acres in size
- Land along larger, arterial streets
- Along existing or proposed bike route



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Permitted Uses - Mixed Use Optional Zone

Civic (3-5%)

• small movie theatre, community space, cultural center...

Retail/Office (4-6%)

locally owned and inspired, and farm-to-table industries...

Residential (9-11%)

• multi-family housing, townhomes, and senior living of 2-4 stories, 10-20 du/a

Community Garden/Parks (3-4%)

shared by residents and businesses in the district

Preserved Agriculture/Open Space (75-80%)

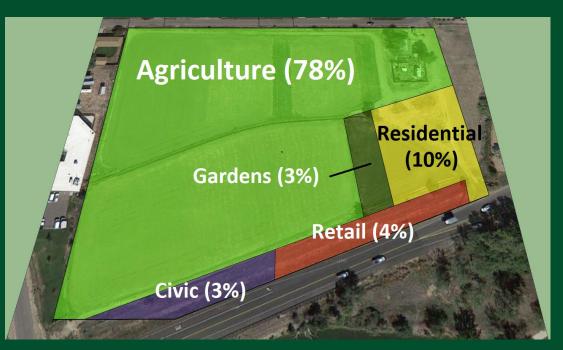
land currently at risk of industrial expansion

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Framework Plan #2: Grow Welby



Concept – Mixed Use Optional Zone



Eligible Parcel along CO 224					
		Square			
Use	Acreage	Feet	Percentage		
Civic/					
Community	0.26	6,115	3%		
Retail/Office	0.35	8,232	4%		
Residential	0.87	20,462	10%		
Community Garden	0.26	6,115	3%		
Preserved Agriculture	6.29	151,463	80%		
Total	8.03	192,388	100%		

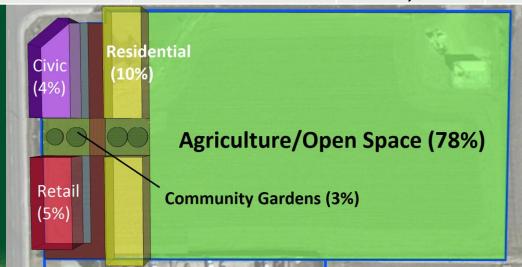
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Concept - Mixed Use Optional Zone

Eligible Parcel at Washington and 75th Ave					
Use	Acreage	Square Feet	Percentage		
Civic/Community	0.19	4,469	4%		
Retail/Office	0.24	5,645	5%		
Residential	0.48	11,290	10%		
Community Garden	0.15	3,528	3%		
Preserved Agriculture	3.75	90,300	78%		
Total	4.81	115,231	100%		



Framework Plan #1: Healthy Welby

Framework Plan #2: Grow Welby



Requirements – Mixed Use Optional Zone

Land Use

- Diverse mix of local shops, employment, residential, and shared space encouraged
- Pedestrian, bike, and bus oriented
- Neighborhood-serving retail and services on ground floor with multi-family housing above



Requirements – Mixed Use Optional Zone

Density

- Compact development
- 2-4 Floors
- Maximum feet tall
- Min 10 DU/Acre
- Max 20 DU/Acre



Framework Plan #1: Healthy Welby

Framework Plan #2: Grow Welby



Requirements - Mixed Use Optional Zone

Design

- Encourage street level activity
- Building façade must abut front and street side property lines
- Building orientation compliments neighboring units
- Buildings frame the streetscape
- Architecture follows existing Welby styles
- Parking in the rear and on-street (where applicable)

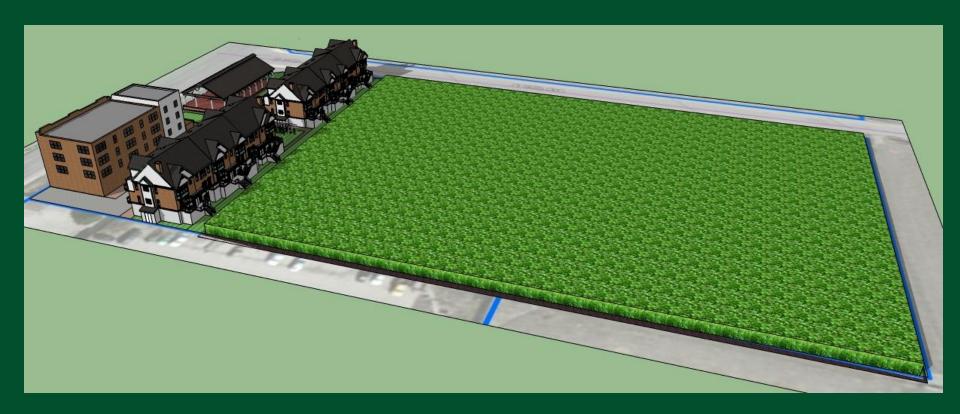
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Concept – Mixed Use Optional Zone



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Concept – Mixed Use Optional Zone



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Concept – Mixed Use Optional Zone



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Concept – Mixed Use Optional Zone



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Residential Optional Zone

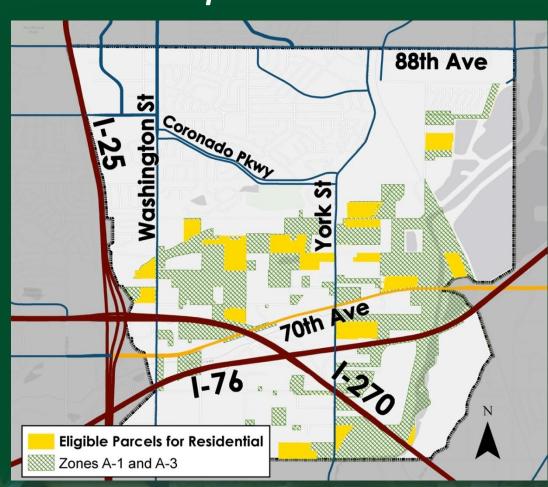
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Eligibility - Residential Optional Zone

- Existing Agricultural Land
- 5-15 Acres in Size
- Along Residential & Collector Streets



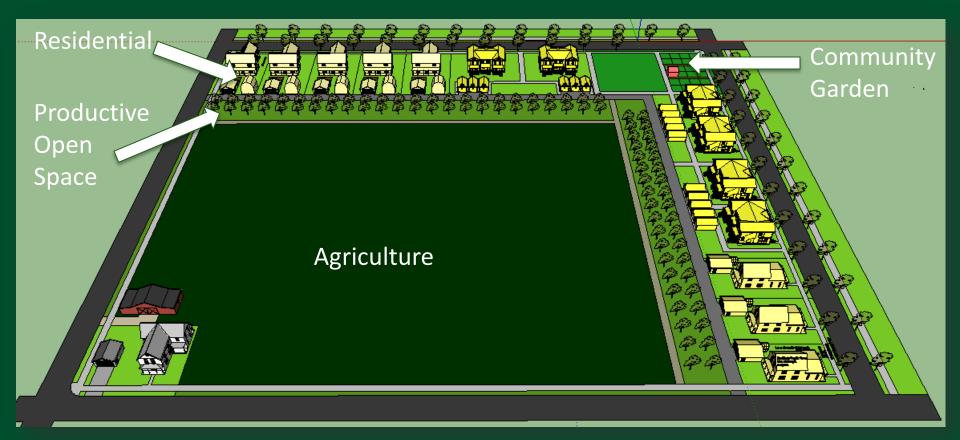
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Concept - Residential Optional Zone



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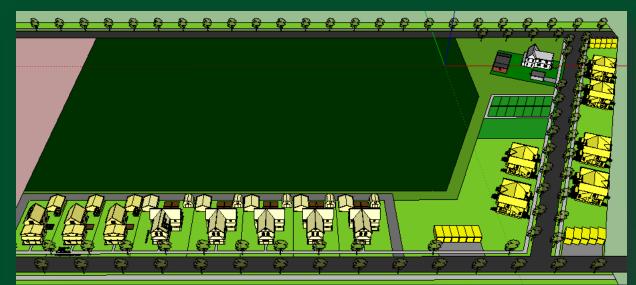
Land Use Type	5-10 Acre Parcel	Greater than 10 Acre Parcel
Residential - Maximum	26%	23%
Multi-Family	13%	11%
Small Single Family	4%	4%
Large Single Family	9%	8%
Agriculture - Minimum	54%	57%
Productive Open Space - Minimum	14%	14%
Community Garden/Shared Space	3%	3%
Right-of-Way	3%	3%

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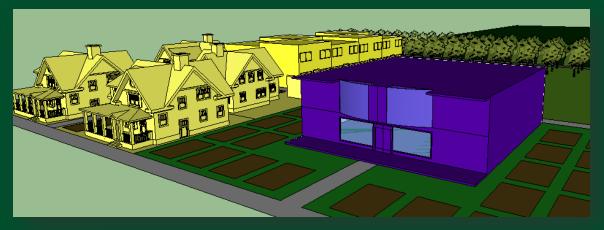


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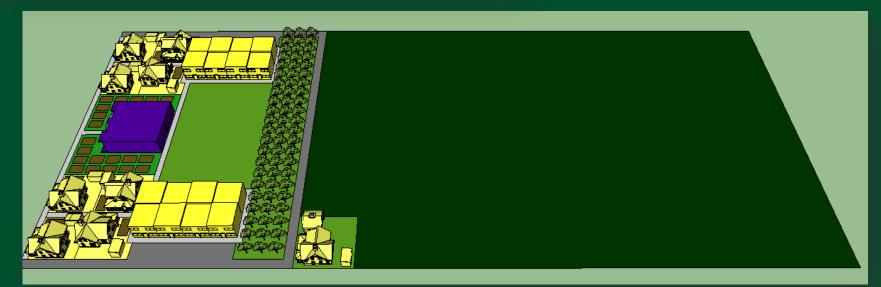
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What Welby Family Farms will Accomplish

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Goals

- Build vibrant and attractive community
- Preserve Welby agricultural heritage and identity
- Economic development Agritourism
- Equitable food access
- Multi-modal transportation network









Framework Plan #1: Healthy Welby

Framework Plan #2: Grow Welby



Local Organizational Support Network

- Feed Denver
- Denver Urban Gardens
- Produce Denver
- Denver Urban Homesteading
- Sprout City Farms



Feed Denver: Urban Farms & Markets

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Framework Plan #2:
Grow Welby



Conclusions

- Without a comprehensive Sub-Area plan that promotes compatible development, Welby will not thrive as the metro area grows.
- Location and cultural trends make Welby ripe to prosper from an agriculture-based economy.
- Adoption of these Framework Plans and Optional Zoning Districts will bolster a vibrant community within Welby.

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Thank you for your time

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