

Development Review Guide – STEP 2 of 8 PRELIMINARY DESIGN REVIEW: APPLICATION

#### **General Information**

Preliminary design review is an opportunity for an applicant to discuss the requirements, standards, procedure, and potential modifications of standards or variances that may be necessary for a project and to generally consider the development proposal design which has been evaluated as a part of the conceptual review process. While the conceptual review process is a general consideration of the development proposal, a Preliminary Design Review considers the development proposal **in greater detail**. Problems of both a major and minor nature can be identified and solved during the preliminary design review before a formal application is made.

Preliminary design review applications must be submitted to City Staff no later than 5 pm, two weeks prior to the Wednesday meeting date. Application materials can be e-mailed to <u>currentplanning@fcgov.com</u> or sent to/dropped off at 281 North College Avenue.

Representatives of Community Development and Neighborhood Services (Zoning, Environmental Planning, Current Planning, and Development Review Engineering), Light and Power, Stormwater, Water/Waste Water, Advance Planning (Long Range Planning and Transportation Planning), Historic Preservation and Poudre Fire Authority regularly attend preliminary design review meetings. Additionally, other public or quasi-public agencies which may be impacted by the development project are invited and encouraged to attend the preliminary design review. These agencies may include the gas utility, water and/or wastewater utility districts, ditch companies, railroads, cable television service providers and other similar agencies.

Upon receipt of a preliminary development proposal for review, and after review of such proposal with the applicant, the staff shall furnish the applicant with written comments and recommendations regarding such proposal in order to inform and assist the applicant prior to preparing components of the development application. The staff shall provide the applicant with a "critical issues" list, which will identify those critical issues that have surfaced in the preliminary design review as issues that must be resolved during the review process of the formal development application. To the extent that there is a misunderstanding or a misrepresentation of facts, the opinion of the staff may change during the course of development review.

al li	ect Planner Jason Holland Paid (\$500) X	
*BOLDED ITEMS ARE REQUIRED* *The	more info provided, the more detailed your comments from staff will be.*	
Project Name Chaters Ed	9 e	
Project Address (parcel # if no address)		
Contact Name(s) and Role(s) (Please ide	ntify whether Consultant or Owner, etc) Bill Swalling	
Business Name (if applicable) Uign	- te Studios	
Applicant Mailing Address Po Bo-	× 1889 Ft. Colling Co 80522	
Phone Number 970 -472-9125	E-mail Address headland evigentestudies con	
Basic Description of Proposal (a detaile	d narrative is also required) 384 Units - SFAFA	
Zoning LANDUE Proposed Use R	esidentia Existing Use NA	
Total Building Square Footage MA	S.F. Number of Stories 1-2 Lot Dimensions	
	p://www.co.larimer.co.us/assessor/query/search.cfm ity, color photos of all sides of the structure are required.	
Increase in Impervious Area <u>59, 6 a</u> (Approximate amount of additional building, pa	versent, or etc. that will cover existing bare ground to be added to the site)	

Community Development & Neighborhood Services - 281 North College Avenue - Fort Collins, CO 80522-0580

# Water's Edge

Preliminary Design Review Application and Narrative

September 1, 2015

Prepared For: Water's Edge Development, LLLP

**Prepared By:** 



### TABLE OF CONTENTS

PROJECT DIRECTORY	3
LIST OF OFFICERS/DIRECTORS INVOLVED IN THE APPLICATION	4
PREVIOUS PROJECT NAMES	4
PROJECT NARRATIVE	5
PLANNING OBJECTIVES	6
PRINCIPALS AND POLICIES	10
Economic Health	10
Environmental Health	10
Community and Neighborhood Livability	13
Safety and Wellness	17
Culture, Parks, and Recreation	18
Transportation	19
Landscape, Open Space and Non-vehicle Circulation Elements	21
Ownership and Maintenance	21
Anticipated Development Schedule	21
BENEFITS OF PROVIDING A METROPOLITAN DISTRICT FOR AMENI WATERS EDGE	TIES IN 22
Key Facts on the Benefits of Providing 55+ Housing for Seniors in County	Larimer 25
The Silver Tsunami in Larimer County:	25
Seniors as Consumers:	26
Seniors in the Labor Force:	26

#### **PROJECT DIRECTORY**

#### Land Owners

Waters' Edge Developments, LLLP 5935 S. Zang Street, Suite 230 Littleton, CO 80127 (303)-949-2629 (303) 858-0277 (fax) Contact: William E. Swalling, President

#### Developer

Waters' Edge Developments, LLLP 5935 S. Zang Street, Suite 230 Littleton, CO 80127 (303)-949-2629 (303) 858-0277 (fax) Contact: William E. Swalling, President

#### Site Planning & Landscape Architect

Vignette Studios PO Box 1889 Fort Collins, CO 80522-1889 (970) 472-9125 (866) 902-4163 (fax) Contact: Terence Hoaglund

#### **Civil Engineer**

Aspen Engineering 238 Walnut Street Suite 200 Ft Collins, CO 80524 (970) 420-5345 Contact: John Gooch

#### **Traffic Consultant**

Delich Associates Matt Delich 2272 Glenhaven Dr. Loveland, CO 80538 (970) 669-2061 (970) 669-5034(fax) Contact: Matt Delich

### LIST OF OFFICERS/DIRECTORS INVOLVED IN THE APPLICATION

Bill Swalling Layne Kottmeier Catherine Hance

### **PREVIOUS PROJECT NAMES**

NA

### **PROJECT NARRATIVE**

- A. Proposed Use Mixed residential community with 384 units on 108.5 acres to consist of multi-family residential, single family attached, alley load single family (courtyard homes), patio homes, single family, and a community center.
- B. Existing Improvements None
- C. Site Circulation Vehicular access is via Turnberry Road, Morningstar Drive, and Brightwater Drive. Morning Star Drive is stubbed from Hearthfire, and will be continued through Waters Edge to intersect with Turnberry Road. Brightwater Drive currently exists on the south side of Waters Edge and will continue through Waters Edge and intersect with Morningstar. Other internal roads will all be local streets. There is also an extensive off-street pedestrian walkway system to connect the various neighborhoods within Waters Edge to the surrounding communities.
- D. Site Design See the attached plans
- E. Compatibility with surrounding area Being a residential community, Waters Edge is very compatible with the surrounding developed areas and continues the lot patterns started with the adjacent Richards Lake and Hearthfire Communities. We are also providing a large landscaped buffer adjacent to Serramonte Estate
- F. Water Detention Water Detention is provided on site through a series of ponds located throughout the site, and the existing pond at the intersection of Brighter Drive and Turnberry Road. This concept is the same as the previously approved plans, but brought to the current stormwater standards.
- G. Existing Drainage The site generally slopes south and west to the existing detention pond at Brightwater Drive and Turnberry Road, or into Richards Lake itself.
- H. Natural Features The city has identified the edge of Richards Lake as a natural area, and we are providing a large buffer area adjacent to the lake that is being landscaped with natural vegetation. A 12' access road/ pedestrian trail is being provided through this area. The access road is needed for access to the existing sewer line.
- I. Unusual Factors This site contains three operating wells, and the required buffers to those are a big constraint. This proposal includes a modification to reduce those setbacks.
- J. Previous Applications This site was previously approved and recorded as Waters Edge.

K. Specific Questions - Would like to get staff support for the modifications to the oil well setbacks, as well as get staff support in creating a metropolitan district that will own and maintain the private infrastructure (see narrative at the end of this application).

### PLANNING OBJECTIVES

Waters' Edge is a proposed new community in Fort Collins, located on 108.5 acres to the west of Turnberry Road, Just to the north of the Richard's Lake community on the City's eastern border with Larimer County. Waters' Edge offers the Fort Collins region a holistic approach to healthy living for a community of empty nesters and other older adults who want to live in a place that supports their physical, mental, and spiritual health. In addition to this property, Water's Edge LLLP also has control over the remaining Lind Property directly to the east of Turnery Road to expand the community in the future.

Larimer County's over-65 population is one of the fastest growing in the state because of aging residents and an influx of retirees to the Fort Collins area, drawn by the environment, cultural and educational opportunities, and the high quality of life. The county's age 65-plus population is projected to more than double by 2030. Providing affordable and appropriate housing to allow seniors to age well is a priority for the social sustainability of Fort Collins and Larimer County, and also provides many social and economic benefits.

The Waters' Edge plan meets or exceeds most of the goals established by the Fort Collins Comprehensive Plan. Waters' Edge amenities, such as the recreation center, open space, town center, and plazas, are available to the public and supported by a Metropolitan District, without impact to City and County budgets. The community also generates significant sales and property taxes, and supports as many as 350 local jobs within Waters' Edge and the Fort Collins area. Waters' Edge residents, consistent with boomers in the region, have an average \$50,000-plus annual income per household.

Waters' Edge introduces a new kind of healthy and livable adult community for Fort Collins—one that offers many of the characteristics that AARP defines as a healthy and livable community, including a safe, secure, walkable environment, housing options, opportunities for recreation and culture, and nearby high-quality health facilities. This new community provides appropriately designed homes in a socially and environmentally sustainable community for adults age 55-plus who are already living in the Fort Collins area, or who may be moving here in the coming years.

The Waters' Edge plan is based on the belief that empty nesters no longer need or want to maintain a large house and back yard; active adults would prefer to travel, learn, recreate, socialize, pursue hobbies, and give back to the community. The community plan features small lots with minimal maintenance –snow removal and lawn and gutter maintenance are taken care of for homeowners, and back yards are converted into ribbons of open space with walking paths to benefit everyone.

The community is designed to allow for independent and vehicle-free living, with safe and connected streets, sidewalks, walking paths, and multi-use trails. Future amenities that support independent living include a proposed town center on the future development land to the east of Turnery Road with a grocery store, health clinic, café, shops, and convenient services. The town center offers lifestyle amenities important to baby boomers, such as social gathering spaces and offices in which to work, mentor, and collaborate.

Waters' Edge focuses on active and healthy living with paths and trails, parks and natural areas, and a recreation center with fitness/yoga studios, multi-purpose space, and an outdoor pool. The recreation center is available on a fee basis to neighbors, which also offers the benefit of helping seniors maintain connections to other age groups.

The Waters' Edge homes are designed for aging in place planned with universal (accessible) design concepts. All homes offer single-level living in a wide variety of types and sizes, from one-bedroom condominiums, to ranch-style homes, to single family attached homes and estate homes with a master bedroom on the main level. A proposed independent-living facility with support services is planned to be located in the future town center. These housing options allow Fort Collins' age-55-plus residents to continue living in their community, and accommodate residents new to the area.

Waters' Edge presents a model for integrating healthy local food into the community lifestyle with a grocery store, farmers' market, community gardens, orchards, aquaponics greenhouse, and community kitchen that hosts community events, cooking demonstrations, and workshops with master gardeners and chefs. The local food focus also provides collaboration, mentoring, and internship opportunities with Colorado State University and new businesses.

Waters' Edge is an excellent example of conservation land planning, with 35 percent of the land reserved as open space, including greenbelts and buffers to protect natural areas. This amount of open space is four times greater than typically provided in residential communities in the Fort Collins area. The community's use of native trees and plants and non-potable irrigation water helps conserve drinking water, and stormwater is managed on site in wildlife-rich wetlands and other natural areas.

Waters' Edge developer W. E. (Bill) Swalling has a successful track record of building adult neighborhoods on Colorado's Front Range that preserve open space, enhance natural areas, and provide appealing housing options. The Waters' Edge plan calls for financing and maintaining the community's paths, parks, plazas, meeting spaces, recreation facilities, non-potable water, and open space and natural areas through the formation of a Metropolitan District. Governed by an elected board of residents, the

Metropolitan District collects funds to support facilities and services, at no cost to the City or County government. An additional benefit: Unlike homeowners association fees, Metropolitan District fees are tax-deductible for residents. A Metropolitan District service plan will need to be approved by the Fort Collins Planning and Zoning Board and the City Council.

The Waters' Edge plan features the following elements of a healthy and active adult community:

Focus on Health: Waters' Edge provides what empty nesters and others age 55 and older have been looking for—appropriate-sized and affordable homes in an attractive community, with amenities that encourage active and healthy living, such as recreation and wellness facilities, gathering spaces, local food production, and connections to nature.

Compact Walkable Community: Streets and 3.5 miles of walking paths connect three residential neighborhoods and a town center through ribbons of open space, providing safe and beautifully landscaped places for residents to walk. Several miles of multi-use trails lead to regional trails and natural areas.

Choice of Housing Options: Waters' Edge offers single-level homes that vary in size, style, and price—from condominiums and patio homes to single family attached homes and estate homes with a main-floor master bedroom.

Proposed Future Town Center: The town center offers convenient services, such as a grocery store, health clinic, coffee shop/café, wine shop, and parking. Plazas and other public spaces connect the town center's shops and services, and walkways through the neighborhoods encourage residents to stroll here from their homes.

Gathering and Work Spaces: A focal point of the town center is a 5,000 to 7,500-squarefoot community center with spaces to gather, work, volunteer, and enjoy social, creative, and cultural activities. These include a large multi-purpose room, community kitchen, arts and crafts room, office spaces, and entrepreneurial start-up space. Plazas, walkways, and a farmers' market also provide opportunities for meetings and special events.

Health and Wellness Facilities: A health/wellness clinic located in the town center offers basic services, as well as classes on healthy living, in partnerships with Kaiser Permanente, Colorado State University, and other healthcare and education institutions.

Healthy Local Food: Waters' Edge encourages healthy eating with 3.5 acres of community gardens and orchards and an aquaponic greenhouse. Fresh local produce and other healthy foods also are available at the town center grocery store, farmers' market, and farm-to-table café. A commercially outfitted community kitchen provides space for cooking demonstrations, community meals, and special events. Programming

for the community gardens, orchards, greenhouse, and kitchen includes workshops with master gardeners and chefs. The local food focus provides opportunities for jobs, internships, and collaborations with Colorado State University and new businesses.

Active Lifestyle Amenities: A recreation center offers multi-purpose activity spaces and indoor studios for yoga, aerobics, and fitness classes, as well as an outdoor swimming pool. The recreation center is available to neighbors on a fee basis. A park, dog park, and other gathering places encourage residents to be active and fit, and to socialize and develop strong ties with neighbors.

Open Space and Natural Areas: Waters' Edge preserves 35 percent of the land as open space, including a 6-acre existing and partially developed city park, restored wetlands, and buffers around key natural features. Homeowners have small private yards and enjoy open spaces behind their homes that replace back yards. Landscaped parks and natural areas also are designed as natural stormwater detention areas.

Richard's Lake and Trail Enhancements: Richard's Lake provides a key activity area for boating, fishing, and swimming. The lake's beach is renovated in partnership with the Richard's Lake community, and the shoreline is restored with native plants. An existing trail extends around the lake perimeter for walking, biking, wildlife observation, and other activities. The landscape for a greenbelt between the lake and a "beachfront" residential neighborhood is enhanced for open space and wildlife habitat.

Water-conserving Landscape: The community's high-efficiency irrigation system features a state-of-the-art monitoring system and uses non-potable water to irrigate all common areas and private-lot landscaping. This use of non-treated water for irrigation, along with native/xeric plants, conserves precious treated water for use in homes and avoids the application of chemically treated water on gardens and landscapes. Nonpotable water reduces treated water needs by 60 percent, and requires a more costeffective irrigation system. Residents own the water system through a Metropolitan District.

Waste Reduction: Waters' Edge is committed to reducing solid waste by 90 percent to become a Zero Waste Community. A pilot program with Gallegos Sanitation Inc. collects compost from homes at curbside, along with trash and materials for recycling. Compost is processed nearby for use in enriching soil for local landscapes.

Economic Sustainability: Amenities such as paths, trails, open space, and the town center are financed and maintained by a Metropolitan District. The Metropolitan District supports the recreation center and pool (with additional public user fees), at no cost to the City of Fort Collins or Larimer County. Services such as mowing and snow shoveling are also paid for through Metropolitan District fees. Waters' Edge generates or supports as many as 350 local jobs —one job for every four senior residents, according to the Fort Collins Senior Advisory Board. Please see the attached narrative for further information on the Metropolitan District.



MARCH, 2014

**COUNTY ROAD 9** 

### **PRINCIPALS AND POLICIES**

Specific principles and policies of the Fort Collins City Plan that are addressed by the Waters Edge community are as follows:

#### **Economic Health**

# Principle EH 1: The City will pursue development of a vibrant and resilient economy that reflects the values of our unique community in a changing world.

#### Policy EH 1.1 – Support Job Creation

Support the enhancement of the community's economic base and job creation by focusing on retention, expansion, incubation, and recruitment efforts that bring jobs and import income or dollars to the community, particularly businesses in the adopted Target Industry Clusters.

#### Principle EH 3: The City will support local, unique, and creative businesses.

#### Policy EH 3.1 – Support Programs Emphasizing Local Business

Work with the local business community to ensure economic development strategies and plans are identified to improve economic health. Support programs such as "Be Local" Northern Colorado and Shop Fort Collins First. "Be Local" supports independent businesses, advocates for a resilient community, and works collaboratively to serve Northern Colorado. The Shop Fort Collins First program encourages residents to spend retail dollars locally before looking elsewhere for goods and services.

#### Policy EH 3.3 – Support Local and Creative Entrepreneurship

Identify local entrepreneurs and creative enterprises and work to both incubate new businesses, and strengthen the existing businesses. This will result in the creation of jobs, improved cultural awareness, and growth in the creative economy.

#### **Environmental Health**

#### Principle ENV 1: Within the developed landscape of Fort Collins, natural habitat/ ecosystems (wildlife, wetlands, and riparian areas) will be protected and enhanced.

#### Policy ENV 1.1 – Protect and Enhance Natural Features

Use regulatory powers to conserve, protect, and enhance the resources and values of high value biological resources such as wetlands, riparian areas, and wildlife habitat by directing development away from sensitive natural areas. When it is not possible to direct development away from sensitive natural resources the development will be integrated into these areas to minimize impacts and mitigate any losses.

Waters Edge has worked with the city's natural areas department to provide buffers to Richards Lake Reservoir, removed noxious trees within the existing natural area, and have provided enhanced landscaping with the buffer, while preserving neighborhood access to the lake with paths,picnic pavilions and beach area.

# Principle ENV 4: The City will pursue new opportunities to provide multi- functional open lands.

#### Policy ENV 4.1 – Improve Connectivity

Explore opportunities for land conservation partnerships between Stormwater, Parks and Recreation, Transportation, and Natural Areas departments to provide and enhance trail corridors to connect open lands, to enhance wildlife habitat and corridors, and to improve bicycle and pedestrian access to schools, parks, natural areas, rivers, shopping areas, and neighborhoods.

#### Policy ENV 4.3 – Improve Water Quality and Detention

Explore opportunities for Stormwater, Parks and Recreation and Natural Areas departments to partner on acquiring lands to incorporate stormwater systems that improve water quality and contribute to the ecological functioning of urban watersheds.

#### Policy ENV 4.4 – Provide Neighborhood Natural Areas

Explore opportunities for Stormwater, Parks and Recreation, and Natural Areas departments to partner on acquiring lands for neighborhood natural areas.

#### Policy ENV 4.5 – Support Community Horticulture

Encourage and support the establishment of community gardens and other horticultural projects throughout the City to provide food, beautification, education, and other social benefits. Support the development of community- led horticulture projects and agricultural activities on appropriate City-owned lands (e.g., Homeowner Association-run garden plots in neighborhood parks, ongoing leasing for agricultural purposes, and farmers' markets in public plazas and parking lots).

#### Policy ENV 4.6 – Utilize Corridors

Provide public access, promote wildlife movement, and link neighborhoods, parks, and activity centers, commercial centers, and streets through a network of open lands and trails along streams, drainageways, and irrigation ditch corridors, where compatible with natural habitats, utilizing environmentally sensitive trail design.

Waters Edge is providing a variety of open lands throughout the community that incorporate walk ways, detention facilities, orchards, community gardens natural areas, as well as pocket parks and recreational areas. We want to provide easy access for all residents to enjoy the outdoors, the community gardens, interact with nature, and enjoy the edible landscape located throughout the community.

# Principle ENV 9: The City will reduce total mobile source emissions by focusing on both technology (e.g., tailpipe emissions) and behavior (e.g., driving patterns).

**Policy ENV 9.1 – Promote Alternative and Efficient Transportation Fuels and Vehicles** Promote alternative and efficient transportation fuels and vehicles that improve air quality. Invest in infrastructure throughout the City to support alternative fuel vehicles and promote the use of such vehicles through education and incentives. (Also see the Transportation chapter's Increase Awareness section for information about reducing mobile source emissions by focusing on behavior.)

Through thoughtful community design, and the extensive network of pathways, residents will be able to easily access the community amenities without having to rely on vehicles for transportation.

Principle ENV 14: The City will apply the US Environmental Protection Agency's integrated "hierarchy" of waste management to help protect all environmental resources including air, soil, and water using source reduction as the primary approach, followed in

# order by reuse, recycling/composting energy recovery using emerging pollution-free technology, and landfill disposal (where methane gas capture is employed) as a final resort.

#### Policy ENV 14.1 – Divert Waste

Identify and develop viable, sustainable strategies designed to accelerate the community's ability to meet or surpass the adopted goal of diverting 50% of the community's waste stream from disposal in landfills.

#### Policy ENV 14.2 – Lower Greenhouse Gas Emissions

Recognize the critical role of successful solid waste diversion and recycling in significantly lowering greenhouse gas (GHG) emissions and place priority on employing strategies that will enable the community to meet its adopted goals for reducing GHG emissions and the risks of climate change.

Through thoughtful community design, and the extensive network of pathways, residents will be able to easily access the community amenities without having to rely on vehicles for transportation.

# <u>Principle ENV 15: The City will recognize that discarded materials, such as recyclable commodities, reusable products, and organics, can be economic resources for the community.</u>

#### Policy ENV 15.1 – Encourage Composting

Divert organic material from landfill disposal and put it to a beneficial secondary use as compost, which increases water conservation, adds nutritional value, and provides carbon dioxide storage capacity (carbon sink) when applied to soil, or for generating alternative sources of energy.

Through a partnership with Gallegos Sanitation, curbside compost pickup will be provided to all residents.

Principle ENV 19: The City will pursue opportunities to protect and restore the natural function of the community's urban watersheds and streams as a key component of minimizing flood risk, reducing urban runoff pollution, and improving the ecological health of urban streams.

#### Policy ENV 19.2 – Pursue Low Impact Development

Pursue and implement Low Impact Development (LID) as an effective approach to address stormwater quality and impacts to streams by urbanization. Low Impact Development is a comprehensive land planning and engineering design approach with a goal of minimizing the impact of development on urban watersheds through the use of various techniques aimed at mimicking predevelopment hydrology.

Waters Edge will be providing Low Impact Development throughout the community including the use of permeable pavement, water quality enhancements, dispersed detention throughout, and opportunities to recharge groundwater through the stormwater system integrated into the community.

#### Community and Neighborhood Livability

# Principle LIV 10: The city's streetscapes will be designed with consideration to the visual character and the experience of users and adjacent properties. Together, the layout of the street network and the streets themselves will contribute to the character, form, and scale of the city.

#### Policy LIV 10.1 – Design Safe, Functional, and Visually Appealing Streets

Ensure all new public streets are designed in accordance with the City street standards and design all new streets to be functional, safe, and visually appealing, with flexibility to serve the context and purpose of the street corridor. Provide a layout that is simple, interconnected, and direct, avoiding circuitous routes. Include elements such as shade trees, landscaped medians and parkways, public art, lighting, and other amenities in the streetscape. Approve alternative street designs where they are needed to accommodate unique situations, such as "green" stormwater functions, important landscape features, or distinctive characteristics of a neighborhood or district, provided that they meet necessary safety, accessibility, and maintenance requirements. (Also see the Transportation chapter.)

#### Policy LIV 10.2 – Incorporate Street Trees

Utilize street trees to reinforce, define and connect the spaces and corridors created by buildings and other features along a street. Preserve existing trees to the maximum extent feasible. Use canopy shade trees for the majority of tree plantings, including a mixture of tree types, arranged to establish urban tree canopy cover.

Waters Edge provides a diverse street system that provides connectivity within the community, but discourages through traffic, and therefor slower speeds creating a safer street network. Some of the street incorporate medians to enhance the visual appeal of the streets, and all streets will incorporate street trees.

# <u>Principle LIV 11: Public spaces, such as civic buildings, plazas, outdoor spaces, and parks will be integrated throughout the community and designed to be functional, accessible, attractive, safe, and comfortable.</u>

#### Policy LIV 11.2 – Incorporate Public Spaces

Incorporate public spaces and activities such plazas, pocket parks, patios, children's play areas, transit facilities, sidewalks, pathways, "street furniture" such as benches and planters, and public art into the urban designs for residential, mixed-use, commercial, and civic development projects.

Waters Edge provides a variety of public spaces throughout the community, including pocket parks, a community center, courtyards, seating areas, community gardens, orchards, natural areas, and more.

# Principle LIV 14: Require quality and ecologically sound landscape design practices for all public and private development projects throughout the community.

#### Policy LIV 14.1 – Encourage Unique Landscape Features

In addition to protecting existing natural features, encourage integration of unique landscape features into the design and architecture of development and capital projects. These unique features may range from informal and naturalized to highly structured and maintained features. Some examples include tree groves within a project, stormwater facilities that become naturalized over time, walls with vines, drainageway enhancements, and other small, uniquely landscaped spaces.

#### Policy LIV 14.2 – Promote Functional Landscape

Incorporate practical solutions to ensure a landscape design is functional in providing such elements as natural setting, visual appeal, shade, foundation edge to buildings, screening, edible landscapes, buffers, safety, and enhancement of built environment. Consider and address practical details such as sight distance requirements and long-term maintenance in landscape design.

#### Policy LIV 14.3 – Design Low Maintenance Landscapes

Design new landscaping projects based on maintainability over the life cycle of the project using proper soil amendment and ground preparation practices, as well as the appropriate use of hardscape elements, trees, mulches, turf grass, other plant materials, and irrigation systems. Low maintenance practices can be achieved in both turf and non-turf planting areas, provided these areas are designed and installed to minimize weeds, erosion and repairs.

Waters Edge is creating a landscape that incorporates a variety of natural and drought tolerant plant material that also includes edible plants, orchards, community gardens, and other features. Irrigated turf grass will be kept to a minimum. A comprehensive non-potable irrigation system is also being developed that will provide cutting edge water management system which will also include on-lot irrigation systems. The entire community will also be maintained by the proposed metropolitan district.

PRINCIPLE LIV 21: New neighborhoods will be integral parts of the broader community structure, connected through shared facilities such as streets, schools, parks, transit stops, trails, civic facilities, and a Neighborhood Commercial Center or Community Commercial District.

#### Policy LIV 21.2 – Establish an Interconnected Street and Pedestrian Network

Establish an interconnected network of neighborhood streets and sidewalks, including automobile, bicycle and pedestrian routes within a neighborhood and between neighborhoods, knitting neighborhoods together and not forming barriers between them. Provide convenient routes to destinations within the neighborhood:

#### Policy LIV 21.2 – Design Walkable Blocks

While blocks should generally be rectilinear or otherwise distinctly geometric in shape, they may vary in size and shape to avoid a monotonous repetition of a basic grid pattern or to follow topography. In order to be conducive to walking, determine block size by frequent street connections within a maximum length of about 300 to 700 feet.

#### Policy LIV 21.3 – Calm Traffic

Design neighborhood streets so as to discourage excessive speeding and cut-through traffic. Design street widths and corner curb radii to be as narrow as possible, while still providing safe access for emergency and service vehicles. Utilize frequent, controlled intersections, raised and textured crosswalks, and various other specialized measures to slow and channel traffic without unduly hampering convenient, direct access and mobility.

Waters Edge continues the street network system created by the adjoining Richards Lake and Hearthfire communities, extending those streets into Waters Edge. There is also an interconnected system of walkways that provide connectivity to adjacent neighborhoods, as well as breaking blocks to improve the walkability of the community and reduce reliance on automobiles.

#### <u>Principle LIV22: The design of residential neighborhoods should emphasize creativity,</u> <u>diversity, and individuality, be responsive to its context, and contribute to a comfortable,</u> <u>interesting community.</u>

#### Policy LIV 22.1 – Vary Housing Models and Types

Provide variation in house models and types in large developments, along with variations in lot and block sizes, to avoid monotonous streetscapes, increase housing options, and eliminate the appearance of a standardized subdivision.

#### Policy LIV 22.2 – Provide Creative Multi-Family Housing Design

Design smaller multi-family buildings to reflect the characteristics and amenities typically associated with single-family detached houses. These characteristics and amenities include orientation of the front door to a neighborhood sidewalk and street, individual identity, private outdoor space, adequate parking and storage, access to sunlight, privacy, and security.

#### Policy LIV 22.3 – Offer Multi-Family Building Variation

Offer variation among individual buildings within multi- building projects, yet stay within a coordinated overall "design theme." Achieve variation among buildings through a combination of different footprints, facade treatment, roof forms, entrance features, and, in specialized cases, building orientation. Avoid monotonous complexes of identical buildings, although there may be ways to achieve visual interest among substantially identical buildings with a high degree of articulation on each building, combined with variation in massing on the site.

#### Policy LIV 22.4 – Orient Buildings to Public Streets or Spaces

Orient residential buildings towards public sidewalks or other public outdoor spaces that connect to streets, the commercial core, and transit stops. Examples of public outdoor spaces include parks, squares, gardens with walkways, and courtyards.

#### Policy LIV 22.5 – Create Visually Interesting Streetscapes

All new residential buildings should be designed to emphasize the visually interesting features of the building, as seen from the public street and sidewalk, and to minimize and mitigate the visual impact of garage doors, driveways, and other off-street parking.

#### Policy LIV 22.6 – Enhance Street Design and Image

Enhance prominent connecting streets in neighborhoods by forming circles, squares, medians, or other special places to recall history, give identity, and calm traffic. Tree- lined streets and boulevards with inviting, landscaped walkways, parkways, and medians, will add to the image of these districts as safe and comfortable places to live.

#### Policy LIV 22.7 – Consider Landmarks and Views

Consider view corridors to the mountains or other landmarks in the arrangement of streets, Neighborhood Centers and Commercial Districts, and other shared spaces within neighborhoods. Design the view down a residential street to terminate on a visually interesting feature and not directly on a garage door.

#### Policy LIV 22.8 – Reduce the Visual Prominence of Garages and Driveways

To foster visual interest along a neighborhood street, limit the street frontage devoted to protruding garage doors and driveway curb crossings using one or more of the following techniques:

 $\cdot$  Recess garages, or tuck them into side or rear yards (if feasible), using variety and creativity to avoid a streetscape dominated by the repetition of garage doors.

· Locate garages further from the street to allow narrower driveway frontage at the curb, leaving more room for an attractive streetscape.

• Incorporate alleys and various forms of shared driveways to reduce the need for driveway curb cuts and street-facing garage doors. Such alleys and driveways can also serve as locations for ancillary buildings, utilities, service functions, and interior-block parking access.

It is recognized that there may be ways a residential property can be custom-designed to mitigate the view of a protruding garage opening.

#### Policy LIV 22.9 – Form Neighborhood Edges

Use features shared with adjoining neighborhoods, such as major streets, changes in street patterns, greenways, and other features such as rivers, streams, and major irrigation ditches to form neighborhood edges. Landscaped outdoor spaces and trails may also be used to create an attractive environment at neighborhood edges.

#### Policy LIV 22.10 – Provide Transitions at Community Edges

Where a new neighborhood develops next to designated open lands, rural lands, or Urban Estate Neighborhoods near an edge of the city, design the neighborhood and layout to complement the established patterns of open space, buildings, and land forms.

Waters Edge incorporates a variety of housing options into the community including courtyard alley accessed homes, small lot patio homes, larger lot patio homes, single family homes, estate homes, single family attached, and multi-family housing. The proposed architecture of the homes in the community will create a diverse streetscape of homes that minimizes the impact of garage doors, and avoids the cookie cutter approach of so many communities that are built today.

Buffers are also incorporated into the community design to provide separation from other established communities on the periphery of Waters Edge.

Principle LIV 23: Neighborhoods will feature a wide range of open lands, such as small parks, squares, greens, play fields, natural areas, orchards and community gardens, greenways, and other outdoor spaces to provide linkages and recreational opportunities both for neighborhoods and the community as a whole.

#### Policy LIV 23.1 – Provide Neighborhood Parks and Outdoor Spaces

Locate neighborhood parks or other public outdoor spaces within walking distance of homes. Design outdoor spaces in conjunction with streets and walkways to be attractive, formative, purposeful parts of any land development and not merely residual areas left over from site planning for other purposes. Aim to mostly surround public outdoor spaces with streets or house fronts in order to provide public visibility and monitoring of the area and promote safety.

#### Policy LIV 23.2 – Integrate Natural Features

Protect valuable natural features, including creeks, significant trees and wetlands, and integrate them into the overall design of a neighborhood as shared amenities.

Waters Edge provides a variety of recreational amenities throughout the community, including pocket parks, a community center, courtyards, seating areas, community gardens, orchards, natural areas, and more.

# Principle LIV 27 – Urban Estate Neighborhoods will provide a setting for a predominance of low-density and large-lot housing.

#### Policy LIV 27.5 – Cluster Development

Use cluster development patterns to preserve scenic view corridors or natural features; provide open space for the common use and enjoyment of residents and the broader community; preserve cohesive blocks of agricultural land; and/or create transitions between more intense urban development and rural or open lands.

A portion of Waters Edge is within the Urban Estate zoning district, adjacent to Hearthfire. Waters Edge incorporate the cluster development option continuing the lot pattern of the adjacent Hearthfire community with significant open space between the communities.

# Principle LIV 28: Low Density Mixed- Use Neighborhoods will provide opportunities for a mix of low density housing types in a setting that is conducive to walking and in close proximity to a range of neighborhood- serving uses.

#### Policy LIV 28.1 – Density

Low Density Mixed-Use Neighborhoods will have an overall minimum average density of four (4) dwelling units per acre, excluding undevelopable areas. This minimum density for parcels 20 acres or less will be three (3) dwelling units per acre.

#### Policy LIV 28.3 – Mix of Housing Types

Distribute a variety of housing types to make an attractive, marketable neighborhood with housing for a diversity of people. Include a minimum of four (4) distinct housing types in any residential project containing more than thirty (30) acres. As the acreage of the residential project increases, so should the number of housing types.

#### Policy LIV 28.4 – Neighborhood Center

Incorporate a Neighborhood Center as a focal point for Low Density Mixed-Use Neighborhoods to serve as a year-round gathering place accessible to all residents or ensure that the Low Density Mixed-Use Neighborhood has access to an existing Neighborhood Commercial District or Community Commercial District. (Also see policies for All Commercial Districts and Neighborhood Commercial Districts.)

At 4,42 net units per acre, the low density mixed use neighborhood within Waters Edge meets the minimum density requirements, while providing a mix of housing types including courtyard homes, patio homes, single family, single family attached, and multi-family homes. A neighborhood center is also being incorporated that will include a recreation center, swimming pool, and other amenities. This center will also be made available to the exiting Richards Lake community.

#### Safety and Wellness

# Principle SW 2: The City will provide opportunities for residents to lead healthy and active lifestyles.

#### Policy SW 2.4 – Design for Active Living

Promote neighborhood and community design that encourages physical activity by establishing easy access to parks and trails, providing interesting routes that feature art and other visually interesting elements, and locating neighborhoods close to activity centers and services so that physically active modes of transportation are a desirable and convenient choice.

#### Policy SW 3.1 – Encourage Community Gardens and Markets

Support cooperative efforts to establish community gardens and markets throughout the community and region. Such efforts include maintaining ongoing partnerships with the Gardens on Spring Creek, Poudre School District, Coalition for Activity and Nutrition to Defeat Obesity (CanDo), farmers markets, Community Supported Agriculture programs (CSAs), and others, as well as supporting the development of a potential year- round community marketplace.

#### Policy SW 3.2 – Participate in Efforts to Enhance the Regional Food System

Participate in and follow the Northern Colorado Regional Food System Assessment project and other Larimer County agricultural efforts, and implement their recommendations at a local level, if appropriate.

#### Policy SW 3.3 – Encourage Private Community Gardens in Neighborhood Design

Encourage community and private gardens to be integrated in the design of new neighborhoods (single and multi-family), and encourage rooftop gardens where appropriate (e.g., roofs of commercial or office buildings, apartment buildings in higher-density areas, etc.).

Through its thoughtful design, Waters Edge is designed to provide for active living with its many amenities, walking trails, and community gardens. Much of the landscape design also incorporates orchards, edible landscapes to further enhance the farm to market concept.

#### Culture, Parks, and Recreation

# Principle CPR 4: The City will maintain and provide a variety of high quality recreational opportunities to the community through an interconnected and diverse network of parks, trails, recreation facilities, public spaces, and natural areas.

#### Policy CPR 4.2 – Interconnect the System

Support an interconnected regional and local system of parks, trails and open lands, and promote community interaction. Where environmentally appropriate, line irrigation ditches and storm drainageways with trails to connect to destinations such as schools, open lands, and Neighborhood Centers. Special attention must be paid to environmentally sensitive trail design, location and construction.

# Principle CPR 5: The City will adopt parks and recreation facilities to meet the range of needs of a changing community.

#### Policy CPR 5.1 - Address Changing Needs

Seek input from the public, and review recreation trends to adapt existing facilities and programs and provide new types of parks and recreation facilities and programs that meet the needs of a changing population and community (e.g., increasing recreational options for the growing senior population, providing coordinated recreational/ cultural activities for youth, providing for frequent resting for places along sidewalks, etc.).

Waters Edge provides an interconnected system of trails, parks, community centers, and community gardens. that is built around the changing needs of the population. These will include multiple resting areas throughout the community, shade structures, to provide a variety of recreational opportunities.

#### Transportation

# Principle T 3: Land use planning decisions, management strategies, and incentives will support and be coordinated with the City's transportation vision.

#### Policy T 3.1 – Pedestrian Mobility

Promote a mix of land uses and activities that will maximize the potential for pedestrian mobility throughout the community and minimize the distance traveled.

#### Policy T 3.2 – Bicycle Facilities

Encourage bicycling for transportation through an urban development pattern that places major activity centers and neighborhood destinations within a comfortable bicycling distance.

Through its thoughtful design, Waters Edge is designed to provide for active living with its many amenities, walking trails, and community gardens. Much of the landscape design also incorporates orchards, edible landscapes to further enhance the farm to market concept.

# Principle T 4: Transportation infrastructure will be designed to be sensitive to the surrounding land use context.

#### Policy T 4.3 – Interconnected Neighborhood Streets

Neighborhood streets will be interconnected, but designed to protect the neighborhood from excessive cut-through traffic.

#### Policy T 4.4 – Attractive and Safe Neighborhood Streets

Neighborhood streets will provide an attractive environment and be safe for pedestrians, bicyclists, and drivers as well as having a well-designed streetscape, including detached sidewalks, parkways, and well-defined crosswalks.

Waters Edge continues the street network system created by the adjoining Richards Lake and Hearthfire communities, extending those streets into Waters Edge. There is also an interconnected system of walkways that provide connectivity to adjacent neighborhoods, as well as breaking blocks to improve the walkability of the community and reduce reliance on automobiles.

# Principle T 8: Transportation that provides opportunities for residents to lead healthy and active lifestyles will be promoted.

#### Policy T 8.1 – Support Active Transportation

Support physically active transportation (e.g., bicycling, walking, wheelchairs, etc.) by continuing bike and pedestrian safety education and encouragement programs, providing law enforcement, and maintaining bike lanes, sidewalks, trails, lighting, and facilities for easy and safe use.

#### Policy T 8.2 – Design for Active Living

Promote neighborhood and community design that encourages physical activity by establishing easy access to parks and trails, providing interesting routes that feature art and other visually interesting elements, and locating neighborhoods close to activity centers and services so that physically active modes of transportation are a desirable and convenient choice.

Through its thoughtful design, Waters Edge is designed to provide for active living with its many amenities, walking trails, and community gardens. Much of the landscape design also incorporates orchards, edible landscapes to further enhance the farm to market concept.

#### Landscape, Open Space and Non-vehicle Circulation Elements

Waters Edge includes open space and non vehicle circulation elements throughout the community, including the following:

- The community is built around the partially constructed Richards Lake park, a City Neighborhood Park
- A community neighborhood center that incorporates a recreation center
- A comprehensive network of green belts and open spaces with walking trails
- A community non-potable irrigation system

#### **Ownership and Maintenance**

Common Open Space elements will be maintained by an Owners Association that will maintain common elements within that development.

The Metropolitan District will maintain the following elements.

- Common Greens
- Common open space elements
- Street Medians
- Community Center
- Community irrigation system
- Private lot yards and irrigation system

#### **Anticipated Development Schedule**

PDP Approval	Winter 2016
Construction	Spring 2016

# BENEFITS OF PROVIDING A METROPOLITAN DISTRICT FOR AMENITIES IN WATERS EDGE

Waters' Edge is a proposed new community in Fort Collins, located on a total of 225 acres to the east and west of Turnberry Road, on the city's eastern border with Larimer County. Waters' Edge offers the Fort Collins region a holistic and affordable approach to healthy living for a community of empty nesters and other older adults who want to live in a place that supports their physical, mental, and spiritual health.

A growing population of seniors: Like the rest of Colorado, the Fort Collins area is aging as the large population of baby boomers reaches retirement age. Larimer County's over-65 population is one of the fastest growing in the state, and will grow 140 percent between 2010 and 2030. The senior population is increasing because of aging and inmigration of people drawn by the environment, culture, educational opportunities, and quality of life in Fort Collins. Providing affordable and appropriate housing to allow seniors to age well in their community is a priority for the social sustainability of the City of Fort Collins and Larimer County, and provides many benefits to the City and County.

Responding to the need for appropriate senior housing options: Waters' Edge provides appropriately designed homes in a socially and environmentally sustainable community for adults age 55-plus who are already living in the Fort Collins area, or who may be moving here. Waters' Edge provides 800 homes in three neighborhoods planned according to the principles of universal design. All homes offer single-level accessible living, in a wide variety of types and sizes, from one-bedroom condominiums, to ranchstyle homes, to townhomes and estate homes with a master bedroom on the main level. An independent-living facility with support services is located in the town center.

Amenities that support independent living: A network of streets, sidewalks, walkways, and trails connect neighborhoods to natural areas, recreation facilities, and a centrally located town center with a grocery store, health clinic, shops, cafes, and other convenient services. The town center also includes lifestyle amenities important to baby boomers, such as a community garden and community kitchen, farmers' market, gathering places, meeting spaces, and offices that offer places to work and pursue entrepreneurial ventures, mentoring, and collaborations.

Amenities that support a healthy lifestyle: Waters' Edge recreation center has fitness/ yoga studios and an outdoor pool and multi-purpose space. Community gardens, orchards, an aquaponics greenhouse, and collaborations with master gardeners and chefs will provide a system for growing and eating healthy local food. The environmentally sustainable community plan includes connections to nature, as well as an attractive xeric landscape and naturalized stormwater drainage areas.

Public benefits: Waters' Edge provides a level of amenity far beyond the standard for residential development in Fort Collins, and supports a self-sustaining community for seniors, without the need to drive. The community plan has been endorsed by [??] as a

healthy walkable lifestyle for seniors. Waters' Edge residents and neighbors benefit from opportunities to use the community's walking paths, trails, natural areas, recreation facilities, and town center. The City, County, and Colorado State University also benefit from the focus on small businesses, collaborations, and entrepreneurial and mentoring endeavors that may be generated through Waters' Edge local food production model and in the town center offices. The jobs and revenues created by Waters' Edge residents help support public services and economic development throughout the region.

Metropolitan District Designation: For these reasons and others discussed on the following pages, Waters' Edge developers are seeking Metropolitan District designation to pay for the design, construction, and maintenance of amenities.

A Metropolitan District for Waters' Edge amenities provides the following benefits:

Economic and material benefits for the City of Fort Collins and Larimer County: Waters' Edge Metropolitan District generates financing for public amenities and services without impacting City and County budgets. The community also offers economic benefits such as significant sales and property tax revenues generated by town center businesses and homeowners, and an environment that focuses on sustainability and aging in place for a growing population of seniors.

Local job creation: Waters' Edge Metropolitan District produces an estimated 350 local jobs- every four senior residents supports one job in the Fort Collins area, according to the Fort Collins Senior Advisory Board. The town center's spaces for workshops, entrepreneurial start-ups, and collaborations with local businesses, governments, and Colorado State University will generate jobs, internships, and mentorships for local residents. Waters' Edge also creates jobs related to operating and maintaining open space and health, retail, food, and recreation facilities. Waters' Edge residents, consistent with boomers in the region, have an average \$50,000-plus annual income per household.

Planning concepts that encourage seniors to remain healthy, active, and independent: Waters' Edge is designed to allow for vehicle-free living, with safe and connected sidewalks, walking paths, and multi-use trails connecting to the town center, convenient services, recreation facilities, natural areas, and other destinations.

Land use that supports seniors who no longer wish to pay for or maintain property: The Metropolitan District is responsible for landscape maintenance such as mowing lawns, shoveling sidewalks, and cleaning gutters. Instead of back yards to maintain, open space provides residents a transportation and fitness network in a safe and natural environment away from traffic, with ribbons of shaded greenways between homes that accommodate walking paths, and multi-use trails that connect to regional trails.

An exceptionally high level of amenities: Waters' Edge features a level of amenities far beyond standard residential development in Fort Collins. A recreation center with fitness/yoga studios and an outdoor pool are included in residents' district fees and available on a fee basis to neighbors, providing a highly-valued community facility at no cost to the City of Fort Collins. Amenities such as 3.5 miles of walking paths and an additional 3.5 miles of multi-use trails that link to regional trails also are available for community and public use. These amenities also link the residents to neighbors of varying ages, a social benefit for all.

Convenience of a town center: The Metropolitan District finances and maintains the town center, where a mix of uses, amenities, and services provide for daily conveniences for senior, including a grocery store, café, health clinic, shops, parking, and a 5,000 to 7,000-square-foot community center featuring spaces to accommodate work, classes, hobbies, volunteering, arts activities, and socializing.

Community infrastructure: At no cost to the City of Fort Collins, the Metropolitan District finances construction and maintenance of a connected network of walking and multiuse paths, as well as paving and street furniture for paths and public gathering places such as town center plazas and the farmers' market. Drainage facilities are constructed as natural systems; new wetlands and restored riparian areas near Richard's Lake and the No. 8 Ditch accommodate stormwater and support natural ecosystems and wildlife habitat. A xeric/native landscape also is installed and maintained through the district.

Local food production model: The Metropolitan District supports a community model for producing, distributing, consuming, and disposing of food waste that includes an aquaponics greenhouse, community gardens and orchards, a farmers' market, and farm-to-table offerings at a grocery store and café. Programming for the community model includes collaborations with master gardeners and chefs in a community kitchen to demonstrate healthy cooking. Food waste is collected by Gallegos Inc. and processed nearby as compost for use in enriching landscape soil. The food production model provides collaboration and internship opportunities with Colorado State University and local businesses.

Transportation options: The Metropolitan District encourages transportation options beyond driving through paths and multi-use trails for walking, biking, and possibly golf cart use to get around the community. These active options conserve natural resources, support a healthy environment, and encourage exercise and social interaction among residents as they age and are no longer able to drive.

Extensive open space: The Metropolitan District finances the landscape design, installation, and maintenance of 21.5 acres of open space (which does not include the 8-acre existing partially built city park). Forty-five percent of Waters' Edge acreage is open space, which is four times greater than typically provided in residential communities in Fort Collins. Open space includes an enhanced beach, natural area, and extended trail around Richard's Lake, and two new mile-long multi-use trails along

the No. 8 Ditch. The edges of the lake and the ditch are restored as wetland areas to attract birds and other wildlife. Open space also includes greenbelts that connect neighborhoods. Invasive plants are removed, and native trees and plants are planted in open space areas.

Metropolitan District Service Plan [Need more info from EPS RE plan?] Waters' Edge developers are preparing a service plan to address the following improvements and services provided by a Metropolitan District:

Open space, parks, and recreation: The Metropolitan District features 21.5 acres of open space (not including an 8-acre existing and partially built city park and additional park areas). This open space includes the Richard's Lake beach, wetlands, and perimeter trail, multi-use trails along the No. 8 Ditch, connections to regional trails, and a network of paved walking paths. The recreation center includes indoor fitness studios, multi-purpose spaces, and an outdoor pool, which are included in Metropolitan District fees for residents and available on a fee basis to the public.

Solid waste disposal/collection: The Metropolitan District supports the goal of reducing solid waste by 90 percent to become a Zero Waste Community. A pilot program with Gallegos Sanitation Inc. collects compost from homes at curbside, along with trash and materials for recycling. Compost is processed nearby for use in enriching soil for local landscapes.

Transportation options: The Metropolitan District allows for vehicle-free living within a connected network of walking paths and multi-use trails that welcome bikes and golf carts for transporting people and goods throughout the neighborhoods, with links to the town center, open spaces, natural areas, and recreation facilities. To ensure pedestrian/ biker safety and enjoyment, paved walking paths connect the community through ribbons of open space located behind homes.

Covenant enforcement: The Metropolitan District's elected governing board has the ability to create and enforce covenants to protect the safety, operations and maintenance, and aesthetics of the community [more here?].

#### Key Facts on the Benefits of Providing 55+ Housing for Seniors in Larimer County

#### The Silver Tsunami in Larimer County:

- Larimer County's senior population will grow by 140 percent (33,500 in 2010, 81,000 in 2030).
- Almost one in every five County residents will be a senior (11.1 percent in 2010, 18.6 percent) in 2030.
- Seniors and the young (25 and under) will be more than 50 percent of the population in 2030.
- Between 2000 and 2010 there was a net migration of 4,690 seniors into Larimer County.

#### Seniors as Consumers:

- One job is supported by every four people over the age 65 (8,875 in 2010, 20,250 in 2030).
- Senior wants and needs will have a large impact on housing, transportation, and health services, among other sectors.
- The senior market segment will grow by 4 to 6 percent a year compared to 1.5 percent for the general population.

#### Seniors in the Labor Force:

- Each year older adults (60+) in Larimer County contribute \$228 million in paid labor, \$40 million in volunteer labor, and \$228 million in unpaid care to family and friends.
- Boomers are 37 percent of the workforce and are leaving the full-time workforce in record numbers.
- Many will want or need to continue working, and may need nontraditional arrangements such as reduced hours, job sharing, seasonal employment, or altered work responsibilities.
- Seniors share these needs for nontraditional work arrangements with students, stayat-home parents, and other workers such as teachers.

-Source: Fort Collins Senior Advisory Board, February 2013



MARCH, 2014

**COUNTY ROAD 9** 





## LAND USE BREAKDOWN

	LMN	UE	TOTAL
GROSS AREA	90.12 AC	18.33 AC	108.45 AC
LESS OIL WELLS	3.47 AC		3.47 AC
ADD ZONE ADJUST	0.70 AC		
DELETE ADJUST		0.70 AC	
ADJUSTED GROSS	87.35 AC	17.63 AC	104.98 AC
NET AREA DEDUCTIONS			
PEDESTRIAN CONNECTIONS	3.40 AC		3.40 AC
ACTIVE OPEN SPACE	1.46 AC		1.46 AC
COMMUNITY CENTER NET SITE AREA	1.80 AC 80.69 AC	17.63 AC	1.80 AC 98.32 AC
NET SHE AKEA	00.09 AC	17.83 AC	90.32 AC
DWELLING UNITS			
COURTYARDS	50 UNITS		50 UNITS
50' PATIO HOME LOTS	21 UNITS		21 UNITS
60' PATIO HOME LOTS	92 UNITS		92 UNITS
70' PATIO HOME LOTS	28 UNITS		28 UNITS
70' SINGLE FAMILY LOTS	36 UNITS		36 UNITS
70' ESTATE LOTS		16 UNITS	16 UNITS
ESTATE CUSTOM HOME LOTS		11 UNITS	11 UNITS
SINGLE FAMILY ATTACHED	82 UNITS		82 UNITS
MULTI-FAMILY	48 UNITS		48 UNITS
TOTAL UNITS	357 UNITS	27 UNITS	384 UNITS
GROSS DENSITY	4.09 DU/AC	1.53 DU/AC	4.99 DU/AC
NET DENSITY	4.42 DU/AC	1.53 DU/AC	4.99 DU/AC
		1.00 2 0,110	
SOLAR ORIENTATION	TBD	NA	
COVERAGE			
STREET ROW	17.81 AC 20.4%	2.30 AC 13.1%	20.11 AC 19.2%
PARKING & PRIVATE DRIVES	3.13 AC 3.6%	2.507.00 15.170	3.13 AC 3.0%
LOTS	37.94 AC 43.4%	5.90 AC 33.5%	43.84 AC 41.8%
BUILDINGS	1.07 AC 1.2%		1.07 AC 1.0%
OPEN SPACE	27.40 AC 31.4%	9.43 AC 53.4%	36.83 AC 35.0%
TOTAL	87.35 AC 100.0%	17.63 AC 100.0%	104.98 AC 100 %
			I

### **BUILDING SETBACKS**

PER LOT TYPICALS ON SHEET 3

### OTHER

ZONING MAXIMUM BUILDING HEIGHT LMN & UE **3 STORIES** 



## SIGHT DISTANCE EASEMENT NOTES

SIGHT DISTANCE EASEMENT - THE SIGHT DISTANCE EASEMENT IS AN EASEMENT REQUIRED BY THE CITY AT SOME STREET INTERSECTIONS WHERE IT IS NECESSARY TO PROTECT THE LINE OF SIGHT FOR A MOTORIST NEEDING TO SEE APPROACHING TRAFFIC AND TO REACT SAFELY FOR MERGING THEIR VEHICLE INTO THE TRAFFIC FLOW. THE FOLLOWING ARE REOUIREMENTS FOR CERTAIN OBJECTS THAT MAY OCCUPY A SIGHT DISTANCE EASEMENT FOR LEVEL GRADE:

(1) STRUCTURES AND LANDSCAPING WITHIN THE EASEMENT SHALL NOT EXCEED (24) INCHES IN HEIGHT WITH THE FOLLOWING EXCEPTIONS. A) FENCES UP TO 42 INCHES IN HEIGHT MAY BE ALLOWED AS LONG AS THEY DO

NOT OBSTRUCT THE LINE OF SIGHT FOR MOTORISTS B) DECIDUOUS TREES MAY BE ALLOWED AS LONG AS ALL BRANCHES OF THE TREES ARE TRIMMED SO THAT NO PORTION THEREOF OR LEAVES THEREON HANG LOWER THAN

(6) FEET ABOVE THE GROUND, AND THE TREES ARE SPACED SUCH THAT THEY DO NOT OBSTRUCT LINE OF SIGHT FOR MOTORISTS. DECIDUOUS TREES WITH TRUNKS LARGE ENOUGH TO OBSTRUCT THE LINE OF SIGHT FOR MOTORISTS SHALL BE REMOVED BY THE OWNER.

## SIGNATURES

BRIGHTWATER DRIVE

COLLECTOR

LIND I

ZONING LMN

SCALE 1" = 300'

**OWNER'S CERTIFICATION** THE UNDERSIGNED DOES/DO HEREBY CERTIFY THAT I/WE ARE THE LAWFUL OWNERS OF REAL PROPERTY DESCRIBED ON THIS SITE PLAN AND DO HEREBY CERTIFY THAT I/WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN.

	DATE
NOTARY CERTIFICATE STATE OF COLORADO ss.) COUNTY OF )	
SUBSCRIBED and sworn to before this	day of 20
WITNESS my hand and official seal.	My commission expires:
	Notary Public
DIRECTOR OF PLANNING APPROVED BY THE DIRECTOR OF PLANNING	OF THE CITY OF FORT COLLINS,
COLORADO, THIS DAY O	OFA.D. 20

## SHEET INDEX

1. COVER SHEET 2. OVERALL SITE PLAN 3. SITE PLAN 1 4. SITE PLAN 2 5. SITE PLAN 3 6. SITE PLAN 4 7. OVERALL LANDSCAPE PLAN 8. LANDSCAPE PLAN 1 9. LANDSCAPE PLAN 2 **10. LANDSCAPE PLAN 3** 11. LANDSCAPE PLAN 4 **12. LANDSCAPE DETAILS** 13. DETAILS **14. ELEVATIONS 15. ELEVATIONS** 

POINT OF BEGINNING.

THENCE S00^28"06"W, 975.37 FEET ALONG THE WEST RIGHT-OF-WAY LINE OF NORTH COUNTY ROAD 11 THENCE S81/23/53"W 6.08 FEET TO THE NORTHEAST CORNER OF TRACT A RICHARD'S LAKE PUD FILING ONE RECORDED AT RECEPTION NO. 2001/023344: THENCE S81^23'53"W, 213.30 FEET ALONG THE NORTH LINE OF SAID TRACT A : THENCE S56^03'41"W, 250.78 FEET ALONG THE NORTH LINE OF SAID TRACT A: THENCE S00^21'52"W, 163.25 FEET ALONG THE WEST LINE OF SAID TRACT A TO THE NORTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE; THENCE SOUTHWESTERLY, 70.12 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH AND ALONG THE NORTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE. SAID ARC HAVING A RADIUS OF 648.39 FEET A CENTRAL ANGLE OF 6^11'45", AND BEING SUBTENDED BY A CHORD THAT BEARS S74^02'45"W. 70.08 FEET: THENCE S70^56'45W. 592.75 FEET ALONG THE NORTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE TO A POINT OF CURVE: THENCE NORTHWESTERLY, 23.56 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE NORTH AND ALONG THE EAST RIGHT-OF-WAY OF FLEET DRIVE. SAID ARC HAVING A RADIUS OF 15.00 FEET . A CENTRAL ANGLE OF 89^58'37". AND BEING SUBTENDED BY A CHORD THAT BEARS N64^03'13"W. 21.21 FEET: THENCE S70^56'45"W. 57.00 FEET TO THE WEST RIGHT-OF-WAY FLEET DRIVE: THENCE SOUTHWESTERLY. 23.01 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE NORTH AND ALONG THE NORTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE, SAID ARC HAVING A RADIUS OF 15.00 FEET, A CENTRAL ANGLE OF 87^52'31", AND BEING SUBTENDED BY A CHORD THAT BEARS \$31^13'14"W, 20.82 FEET; THENCE SOUTHWESTERLY, 159.43 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE NORTH AND ALONG THE NORTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE, SAID ARC HAVING A RADIUS OF 602.17 FEET, A CENTRAL ANGLE OF 15^10'12" AND BEING SUBTENDED BY A CHORD THAT BEARS S82^47'11"W. 158.97 FEET: THENCE N89^37'57"W. 293.62 FEET ALONG THE NORTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE TO A POINT OF CURVE THENCE NORTHWESTERLY, 23,54 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE NORTH AND ALONG THE EAST RIGHT-OF-WAY OF PARKSIDE DRIVE, SAID ARC HAVING A RADIUS OF 15.00 FEET, A CENTRAL ANGLE OF 89^55'43" AND BEING SUBTENDED BY A CHORD THAT BEARS N44^39'35"W, 21.20 FEET:THENCE N00^18'36"E, 239.15 FEET ALONG THE EAST RIGHT-OF-WAY OF PARKSIDE DRIVE TO A POINT OF CURVE;THENCE NORTHEASTERLY 155.50 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE EAST AND ALONG THE EAST RIGHT-OF-WAY OF PARKSIDE DRIVE, SAID ARC HAVING A RADIUS OF 471.55 FEET . A CENTRAL ANGLE OF 18^53'37". AND BEING SUBTENDED BY A CHORD THAT BEARS N09^45'33"E. 154.79 FEET: THENCE N19^12'21"E. 145.13 FEET ALONG THE EAS RIGHT-OF-WAY OF PARKSIDE DRIVE TO A POINT OF CURVE: THENCE N70/47/03"W. 57.00 FEET TO THE WEST RIGHT-OF-WAY OF PARKSIDE DRIVE: THENCE S19/12/39"W. 39.38 FEET ALONG THE WEST RIGHT-OF-WAY OF PARKSIDE DRIVE TO THE NORTHEAST CORNER OF TRACT J RICHARD'S LAKE PUD FILING ONE: THENCE N87^31'09"W 76.75 FEET ALONG THE NORTH LINE OF SAID TRACT J: THENCE N89^38'07"W. 245.10 FEET ALONG THE NORTH LINE OF SAID TRACT J TO A POINT OF CURVE: THENCE NORTHEASTERLY, 301.93 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE NORTH AND ALONG THE NORTH LINE OF SAID TRACT J TO THE EAST RIGHT-OF-WAY OF BRIGHTWATER DRIVE, SAID ARC HAVING A RADIUS OF 890.65 FEET , A CENTRAL ANGLE OF 19/25/24", AND BEING SUBTENDED BY A CHORD THAT BEARS N73/04/26"W. 300 49 FEET THENCE NORTHEASTERLY, 136 76 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE FAST AND ALONG THE FAST RIGHT-OF-WAY OF BRIGHTWATER DRIVE, SAID ARC HAVING A RADIUS OF 492.62 FEET , A CENTRAL ANGLE OF 15/54/24", AND BEING SUBTENDED BY A CHORD THAT BEARS N22/39/54"E, 136.32 FEET THENCE N59^21'36"W, 76.00 FEET TO THE WEST RIGHT-OF-WAY OF BRIGHTWATER DRIVE; THENCE SOUTHEASTERLY, 1192.28 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE EAST AND ALONG THE WEST RIGHT-OF-WAY LIVE OF BRIGHTWATER DRIVE. SAID ARC HAVING A RADIUS OF 568.05 FEET. A CENTRAL ANGLE OF 120^15'30", AND BEING SUBTENDED BY A CHORD THAT BEARS S29^29'51"E, 985.17 FEET; THENCE S89^38'07"E, 59.05 FEET ALONG THE SOUTH RIGHT-OF-WAY OF BRIGHTWATER DRIVE TO A POINT OF CURVE; THENCE SOUTHEASTERLY, 23.54 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH AND ALONG THE SOUTH RIGHT-OF-WAY LINE OF BRIGHTWATER DRIVE TO THE WEST RIGHT-OF-WAY OF PARKSIDE DRIVE, SAID ARC HAVING A RADIUS OF 15.00 FEET, A CENTRAL ANGLE OF 89455'44" AND BEING SUBTENDED BY A CHORD THAT BEARS \$44439'45"F. 21 20 FEET THENCE \$00418'36"W. 170 16 FEET ALONG THE WEST RIGHT-OF-WAY OF PARKSID DRIVE TO THE NORTH LINE OF LOT 27 RICHARD'S LAKE PUD FILING ONE: THENCE ALONG THE NORTHERLY LINES OF LOTS 22-27, 18-20 & 10-12 RICHARDS LAKE PUD FILING ONE THE FOLLOWING SIXTEEN (16) COURSES: 1) N89^41'24"W, 341.31 FEET; 2) S8^13'09"W, 72.27 FEET; 3) N15^55'14"W, 96.75 FEET; 4) N71^45'42"W, 37.98 FEET; 5 S70^38'10"W. 82.90 FEET: 6) S21^08'53"W. 12.16: 7) THENCE SOUTHWESTERLY. 68.32 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH. SAID ARC HAVING A RADIUS OF 53 50 FEET A CENTRAL ANGLE OF 73/09/54" AND BEING SUBTENDED BY A CHORD THAT BEARS \$74/18/45"W 63 77 FEET 8) N52/38/35"W 34 73 FEET 9) N85^44'26W, 191.57 FEET: 10) S27^10'40"W, 108.14 FEET: 11) THENCE NORTHWESTERLY, 20.14 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH, SAID ARC HAVING A RADIUS OF 50.50 FEET, A CENTRAL ANGLE OF 22/51/14", AND BEING SUBTENDED BY A CHORD THAT BEARS N74/16/24"W, 20.01 FEET; 12) N15/43/07"E, 76.21 FEET; 13) N33^53'52"W, 27.57 FEET; 14) N80^39'47"W, 106.21 FEET; 15) S72^55'24"W, 52.90 FEET; 16) S41^45'53"W, 43.57 FEET; THENCE ALONG THE WEST LINE OF SAID RICHARD'S LAKE PUD FILING ONE THE FOLLOWING TWO (2) COURSES 1) N06416'07"W, 300 00 FEET 2) N45408'07"W, 1000 00 FEET TO THE NORTHWESTERLY LINE OF RICHARD'S LAKE PUD, FILING ONE ALSO BEING THE SOUTHEASTERLY LINE OF HEARTHFIRE PUD FILING ONE: THENCE N21/21/53"E. 258.85 FEFT ALONG SAID NORTHWESTERLY AND SOUTHEASTERLY LINES TO A POINT OF CURVE: THENCE NORTHEASTERLY. 751.61 FEET ALONG THE ARC OF A CURVE CONCAVE TO THE WEST AND ALONG THE NORTHWESTERLY LINE OF RICHARD"S LAKE PUD. FILING ONE BEING THE SOUTHEASTERLY LINE OF HEARTHFIRE PUD FILING ONE. SAID ARC HAVING RADIUS OF 479.99 FEET, A CENTRAL ANGLE OF 89^43'07", AND BEING SUBTENDED BY A CHORD THAT BEARS N53^43'25"E, 677.14 FEET; THENCE N40^36'53"E, 365.00 FEET ALONG THE WESTERLY LINE OF THAT PARCEL RECORDED AT RECEPTION NO. 2001020795 AND THE EASTERLY LINE OF HEARTHFIRE PUD FILING ONE TO THE SOUTHEAST CORNER OF SAID HEARTHFIRE PUD: THENCE S89^38'07"E. 15.00 FEET TO THE SOUTHWESTERLY CORNER OF SAID PARCEL RECORDED AT SAID BOOK 1762 PAGE 221; THENCE S89^47'47E, 2445.05 FEET ALONG A LINE PARALLEL TO AND 15.00 FEET SOUTH OF THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 30 AND ALONG THE NORTH LINE OF THAT PARCEL RECORDED AT RECEPTION NO. 2001020795. THENCE ALONG THE NORTHERLY LINE OF THAT PARCEL RECORDED AT RECEPTION NO. 2001020795 AND THE SOUTHERLY LINE OF THAT PARCEL RECORDED AT BOOK 1762 PAGE 221 THE FOLLOWING TWO (2) COURSES: 1) S00^28'06"W, 135.00 FEET; 2) S89^46'47"E, 158.00 FEET TO THE TRUE POINT OF BEGINNING

## **GENERAL NOTES:**

- LANDSCAPE AREA.

- PARKING STALLS.

- **16. ELEVATIONS**

## **PROPERTY DESCRIPTION**

A PARCEL OF LAND LOCATED IN THE SOUTH 1/2 OF SECTION 30, TOWNSHIP 8 NORTH, RANGE 68 WEST, OF THE 6TH P.M., CITY OF FORT COLLINS, COUNTY OF LARIMER STATE OF COLORADO, DESCRIBED AS FOLLOWS: BASIS OF BEARINGS: THE EAST LINE OF THE SE1/4 OF SECTION 30 BEING MONUMENTED AT THE EAST 1/4 CORNER BY A 2" ALUMINUM CAP STAMPED "PLS 4502 1994" AND AT THE SE CORNER BY A 2" ALUMINUM CAP STAMPED "S30,S29,S32,S31, PLS 4502 1994" WITH A BEARING BETWEEN ASSUMED TO BEAR S00^28'06"W;

COMMENCING AT THE EAST 1/4 OF SAID SECTION 30, THENCE S00^28'06"W, 150.00 FEET ALONG THE EAST LINE OF THE SE1/4 OF SAID SECTION 30; THENCE N89^46'47"W, 42.00 FEET TO A POINT ON THE SOUTH LINE OF THAT PARCEL RECORDED AT BOOK 1762 PAGE 221 ALSO BEING THE NORTHEAST CORNER OF THAT PARCEL RECORDED AT RECEPTION NO. 2001020795 OF THE RECORDS OF THE CLERK AND RECORDERS OFFICE OF LARIMER COUNTY, COLORADO, AND THE TRUE

AREA= 4,724,402 SQUARE FEET, 108.457 ACRES MORE OR LESS.

1. SEE SUBDIVISION PLAT AND U.& D.ITY PLANS FOR DESIGN OF ALL EASEMENTS, LOT AREAS AND DIMENSIONS, AND DESIGN OF STREETS AND WALKS.

2. PUBLIC STREETS WILL MEET OR EXCEED CITY OF FORT COLLINS DESIGN CRITERIA

3. COMMON OPEN SPACE AREAS AND LANDSCAPING WITHIN ADJACENT ROW, MEDIANS, AND TRAFFIC CIRCLES ARE TO BE MAINTAINED BY A HOMEOWNERS ASSOCIATION.

4. SIGNS TO COMPLY WITH CITY SIGN CODE UNLESS A SPECIFIC VARIANCE IS GRANTED.

5. WITH FINAL DEVELOPMENT PLANS, DEVELOPER SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS DONE BY OTHER CONSULTANTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT WITH, NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.

6. LIGHTING WITHIN THE PROJECT SHALL COMPLY WITH CITY OF FORT COLLINS LIGHT AND POWER UTILITY REQUIREMENTS AND SECTION 3.2.4 OF THE LAND USE CODE.

7. TO MEET THE REQUIREMENTS OF 3.5.2 (B) OF THE LAND USE CODE, A MINIMUM OF 3 HOUSING MODELS FOR THE SINGLE FAMILY HOMES SHALL BE REQUIRED. THESE HOUSING MODELS SHALL MEET OR EXCEED THE STANDARDS AS OUTLINED IN 3.5.2(B)(2) OF THE LAND USE CODE.

8. ALL SINGLE FAMILY DETACHED HOMES SHALL MEET THE GARAGE DOOR STANDARDS AS OUTLINED IN 3.5.2(E) OF THE LAND USE CODE WHERE FACING PUBLIC STREETS.

9. FOOTPRINTS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY, FINAL FOOTPRINTS MAY VARY.

PRIVATE CONDITIONS, COVENANTS, AND RESTRICTIONS (CC&R'S), OR ANY OTHER PRIVATE RESTRICTIVE COVENANT IMPOSED ON LANDOWNERS WITHIN THE DEVELOPMENT, MAY NOT BE CREATED OR ENFORCED WHICH HAS THE EFFECT OF PROHIBITING OR LIMITING THE INSTALLATION OF XERISCAPE LANDSCAPING, SOLAR/PHOTO-VOLTAIC COLLECTORS (IF MOUNTED FLUSH UPON ANY ESTABLISHED ROOF LINE), CLOTHES LINES (IF LOCATED IN BACK YARDS), ODOR-CONTROLLED COMPOST BINS, OR WHICH HAS THE EFFECT OF REOUIRING THAT A PORTION OF ANY INDIVIDUAL LOT BE PLANTED IN TURF GRASS.

THE SOIL IN ALL LANDSCAPE AREAS, INCLUDING PARKWAYS AND MEDIANS, SHALL BE THOROUGHLY LOOSENED TO A DEPTH OF NOT LESS THAN EIGHT INCHES AND SOIL AMENDMENT SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL OF ALL LANDSCAPE AREAS TO A DEPTH OF AT LEAST 6 INCHES BY TILLING, DISKING OR OTHER SUITABLE METHOD, AT A RATE OF AT LEAST 3 CUBIC YARDS OF SOIL AMENDMENT PER 1,000 SQUARE FEET OF

A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED ON THE PUBLIC RIGTH-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT MAY RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.

THE DEVELOPER SHALL CONTACT THE CITY FORESTER TO INSPECT ALL STREET TREE PLANTINGS AT THE COMPLETION OF DEVELOPMENT. ALL TREES NEED TO HAVE BEEN INSTALLED AS SHOWN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED BEFORE FINAL APPROVAL OF EACH PHASE. FAILURE TO OBTAIN APPROVAL BY THE CITY FORESTER FOR STREET TREES IN A PHASE SHALL RESULT IN A HOLD ON CERTIFICATE OF OCCUPANCY FOR FUTURE PHASES OF THE DEVELOPMENT.

14. CURBS ON FIRE LANES WILL BE PAINTED RED, OR POSTED "NO PARKING, FIRE LANE" EXCEPT AT DESIGNATED

15. ALL LOTS WITH PRIVATE DRIVE REAR ACCESS SHALL NOT BE ALLOWED DRIVEWAY ACCESS FROM A PUBLIC STREET.

16. THIS PROJECT WILL BE CONSTRUCTED AS A MULTIPLE PHASE PROJECT



# VIGNETT

lanning • Landscape Architecture • Graphics PO BOX 1889

Fort Collins, Colorado 80522-1889 970.472.9125 T 866.902.4163 F

www.vignettestudios.com

CLIENT

Water's Edge Developmen LLLP 7400 East Crestline Circle Suite 230 Greenwood Village, Co. 80111

T PLANS DEVELOPMENT COLLINS, COLO INAL 13402 13401FDP2 ACAD FILE: TCH CHECKED: TCH **ISSUE DATE:** Sept. 1, 2015 REVISIONS DATE SHEET TITLE: COVER

Ы

SHEET NO:

SHEET

JOB NO:

DRAWN:





Planning • Landscape Architecture • Graphics PO BOX 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 866.902.4163 F

CLIENT

Water's Edge Development LLLP 7400 East Crestline Circle Suite 230 Greenwood Village, Co. 80111

> DEVELOPMENT PLANS COLLINS, COLORADO FINAL FORT

OB NO:	13402
ACAD FILE:	13401FDP2
DRAWN:	TCH
CHECKED:	TCH
SSUE DATE:	MAY 22, 2015
REVISIONS	DATE
SHEET TITLE:	
OVERALL	
SITE PLA	
SHEET NO:	
	7
	ſ ●







Planning • Landscape Architecture • Graphics PO BOX 1889

Fort Collins, Colorado 80522-1889 970.472.9125 T 866.902.4163 F www.vignettestudios.com

CLIENT

Water's Edge Development ĽLLP 7400 East Crestline Circle Suite 230 Greenwood Village, Co. 80111

5

DEVELOPMENT PLANS COLLINS, COLORADO FINAL FORT

DB NO:	13402
CAD FILE:	
RAWN:	
HECKED:	
SUE DATE:	
EVISIONS	DATE
	<u> </u>
HEET TITLE:	T
SITE PLAN	1
SHEET NO:	










Planning • Landscape Architecture • Graphics PO BOX 1889

Fort Collins, Colorado 80522-1889 970.472.9125 T 866.902.4163 F

www.vignettestudios.com

CLIENT

Water's Edge Development LLLP 7400 East Crestline Circle Suite 230 Greenwood Village, Co. 80111

# 5

DEVELOPMENT PLANS COLLINS, COLORADO

	FINAL FORT
JOB NO:	13402
	13401FDP2
DRAWN:	
CHECKED:	TCH
ISSUE DATE:	Sept. 1, 2015
SHEET NO:	
	<b>f</b> ●



# Waters Edge Modification of Standards Request

Requested Modifications of Standards for: 3.8.26 Residential Buffering

Specifically requesting modifications for the following:

- (1) exception to allow for public ROW and streets within the buffer yard
- (2) Reduce buffer yard minimum requirement from 350 feet to 150 feet
- (3) Reduce buffer yard plant material requirements
- (4) Eliminate buffer yard plant material requirements in cases of wells being abandoned

#### Standards

#### 3.8.26 Residential Buffering

(B) The purpose of this Section is to provide standards to separate residential land uses from existing industrial uses, in order to eliminate or minimize potential nuisances such as dirt, litter, noise, glare of lights and unsightly buildings or parking areas, or to provide spacing to reduce adverse impacts of noise, odor or danger from fires or explosions.

(*C*) Buffer standards. Buffer yards shall be located on the outer perimeter of a lot or parcel and may be required along all property lines for buffering purposes and shall meet the standards as provided in this Section.

(1) Only those structures used for buffering and/or screening purposes shall be located within a buffer yard. The buffer yard shall not include any paved area, except for pedestrian sidewalks or paths or vehicular access drives which may intersect the buffer yard at a point which is perpendicular to the buffer yard and which shall be the minimum width necessary to provide vehicular or pedestrian access. Fencing and/or walls used for buffer yard purposes shall be solid, with at least seventy-five (75) percent opacity.

(2) There are four (4) types of buffer yards which are established according to land use intensity as described in Chart 1 below. Buffer yard distances are established in Chart 2 below and specify deciduous or coniferous plants required per one hundred (100) linear feet along the affected property line, on an average basis.

(4) Additional Standards Applicable to Buffer Yard D. The following requirements shall also apply to development located in Buffer Yard D:

(a) Measured. For purposes of Buffer Yard D standards, the buffer yard shall be measured as the distance from the outer edge of an existing oil and gas operation site to the nearest wall or corner of any occupied building proposed in the residential development. The term existing oil and gas operation site shall include the impact area of any well that has received all required permits prior to submission of the residential development plan, even if drilling has yet to occur on the site. Buffer Yard D areas may include paved areas, notwithstanding paragraph (1) above.

(b) Disclosure. If any residential development is proposed to be located within one thousand (1,000) feet of an existing oil and gas operation, then at such time as the property to be developed is platted or replatted, the plat shall show the one-thousand-foot radius from such well and shall contain a note informing subsequent property owners that certain lots shown on the plat are in close proximity to an existing oil and gas operation.

(c) Fencing. If any residential development is proposed to be located within five hundred (500) feet of an existing oil and gas operation, and if an existing fence does not surround the oil and gas operation, a fence must be erected by the developer along the property boundary between the oil and gas operation and the development that restricts public access to the oil and gas operation.

From Chart 1 (Land Use Intensities) Oil and gas operations, including plugged and abandoned wells have a Very High Intensity, with a buffer yard D requirement

Buffer Yard D requires the following plant material for every 100 feet at a 375 foot nominal buffer yard

- 6 Shade Trees
- 7 Ornamental Trees or Type 2Shrubs\*\*\*
- 5 Evergreen Trees
- 35 Shrubs (Type 2)

#### Discussion

It is our understanding the residential buffering standards related to oil and gas operations were put into place to address visual and noise issues. The developers of Waters' Edge are proposing alternative mitigation to address visual and sound effects with the goal of reducing the buffer setback requirements to 150 feet and reducing the plant material required to buffer yard A requirements.

#### Project Background

Waters' Edge at Richard's Lake was originally recorded on July 19, 2010. As with most other developments, the housing downturn prevented Waters' Edge from moving forward. The original development time frame expired in July 2013, but we were granted a one-year extension of the approved plans to July 2014. Towards the end of 2013, the City adopted residential buffer standards, which had the effect of dramatically affecting Waters' Edge. In May of 2014 we applied for another one-year extension, but were denied since the project no longer met the residential buffering standards regarding oil and gas operations.

#### Well Locations

Within the Waters' Edge and adjoining Richard's Lake and Hearthfire neighborhoods, there are 4 operating well heads, and one (1) injection well.



Graphic of Well Head Locations

Well Head 1 is an existing operating pump within the Hearthfire neighborhood Well Head 2 is an existing operating pump within Waters Edge, but immediately adjacent to Hearthfire

Well Head 3 is an existing operating pump within Waters Edge

Well Head 4 is an existing operating pump within the Richards Lake Neighborhood

Well Head 5 is an operating well that has no pump. Oil flows due to pressure.

Waters' Edge originally was planned around the existing well heads with a 150-foot setback from the center of the wells to the edge of adjacent lots, the standard at the time and as required by the surface use agreement with the well operator. Hearthfire and Richard's Lake were both planned and approved with homes much closer than even that to the well heads. Street networks were also planned to work with the 150-foot setbacks in most locations.

#### Noise Levels

Since the City adopted the current buffer standards, the developer of Waters' Edge has been working with various professionals and the company that operates the well heads to reduce the visual and noise impacts of the wells.

To address the sound issue, Waters' Edge hired Engineering Dynamics, Inc. to measure the noise levels on all five existing well heads, and a sixth located on Terry Lake Road which was used as a test case, and to propose solutions. The study found the measured sound levels at the well heads ranged from 47.4 dBA to 62.2 dBA. At 150 feet from the well heads (our proposed setbacks), the existing noise levels ranged from 28.4 dBA to 36.5 dBA, It was also determined that the optimal designed sound level at the nearest residence should be 25 dBA. This is 5 dBA less than the background sound levels on a typical evening, given the conditions of no rain, wind, traffic, barking dogs, etc., for this area of Colorado.

Engineering Dynamics is recommending replacement of the current well heads with a pump system that is placed inside of a structure to reduce the noise levels to the desired levels. Such a structure already exists at the Terry Road well head location. Noise levels measured at this location indicated that, immediately adjacent to this well head, the sound levels were 56.7 dBA., similar to those at Waters' Edge. At 150 feet, however, the sounds levels dropped to less than 20 dBA, which is well under the target sound level. The structures are the size of a backyard storage shed and are similar in size to structures that cover irrigation pump systems at City parks. Waters' Edge has hired Charles Steckly Architects to prepare conceptual designs and images of how these structures would look. Engineering Dynamics has also determined that a structure could be built around the existing pumps which would provide the same noise-muffling effect.



Proposed Pump SystemStructure

Below are some before and after simulations showing how these structures may look.



Existing Hearthfire well head w/ security fencing



Proposed Hearthfire well head placed inside a structure





#### Existing well head within Water's Edge



Proposed well head placed inside a structure

#### Landscaping

The standard buffer yard requirements for oil and gas operations required a buffer yard type 'D." Vignette Studios has prepared a typical buffer scenario showing how this may look with the required plant material (see attached). As can be seen, this results in a massive amount of plant material which we estimate will cost approximately \$500,000 per well. Engineering Dynamics, Inc. also noted in their study that landscaping does little to mitigate actual sound levels, but does provide a visual as well as a psychological buffer. They further evaluated creating berms, and deduced that for berms to be effective, the berms would need to be 8-10 feet high. They do recommend some combination of berming, landscaping, or wooden privacy fencing be installed to the well heads to provide visual and psychological separation.

#### City of Fort Collins Air Monitoring Project

The City and the oil operators within Waters' Edge completed an air monitoring project between November 15, 2013 and February 15, 2014. In this study, a well pad within Waters' Edge, one in Hearthfire, and two sites in downtown Fort Collins were used to measure air quality for various breathable gases that would be expected from typical well operations. The study found that some gases were actually higher in downtown than at the well heads, and in all cases gases were not detected to be of concern at the well heads. Accordingly, the modifications requested will not negatively affect air quality in the areas surrounding the well heads.

#### **Oil Well Operators**

The developer of Waters' Edge has discussed its intent to request this modification of standards with respect to the set-back and landscaping requirements at issue with the operators of the subject oil wells. That company, Memorial Production Partners, LP, has indicated that it will not object to the proposed modification of standards.

#### Hardships Imposed by the Existing Standards

Enforcing the 350-foot setback requirement would negatively impact the proposed development as follows:

- 1. Would result in a reduction of approximately 66 units, with an associated reduction in project revenues of approximately \$3.5 million;
- 2. Would impact the street network system, including required street connections and require extensive reworking of the existing plan; and
- 3. May potentially impact elements within the City of Fort Collins Richard's Lake Park

# SUMMARY AND JUSTIFICATION OF REQUEST FOR MODIFICATION OF STANDARDS

Based on the results of the Engineering Dynamics Study and other factors discussed herein, the developer of Waters' Edge proposes the following:

- 1. To replace the existing well heads, not only within Waters' Edge, but also the two well heads in Richard's Lake and Hearthfire with the pump system currently in use at the Terry Road well head location;
- 2. To cover the new pump systems with structures such as those shown in the illustrations provided; and
- 3. Install buffer yard "A" type landscaping around the site. (Buffer yard 'A' typical landscape requirements are attached at Exhibit D).

The modifications to existing standards requested are as follow:

- 1. Modify standards under 3.8.26(c) by reducing the setback requirements from 350 feet to 150 feet;
- 2. Modify standards under 3.8.26(c) by reducing the required buffer yard from a Type 'D' to a Type 'A'; and
- 3. Eliminate the landscape buffer requirements entirely in the event that one or more of the wells are abandoned.

#### JUSTIFICATION

Justification for the proposed modifications is as follows:

- 1. Enforcement of the current standards imposes a hardship on the project which occurred after the initial development plan was recorded;
- 2. The proposed installation of the low-profile pumps at the well heads with the cover structure reduces the noise levels below desired threshold levels even with a 150-foot setback buffer;
- 3. The cover structure addresses the negative visual impacts of the well heads thus obviating the need for heavy landscaping and rendering a Type 'A" buffer yard sufficient; and
- 4. The proposed modifications provide a result that is equal to or better than that which would result by enforcement of the existing Land Use Code.

### **ATTACHMENTS**

- A. Proposed Water's Edge Site Plan
- B. Engineering Dynamics Study
- C. Buffer yard 'D' typical landscape requirements
- D. Buffer yard 'A' typical landscape requirements
- E. Waters Edge Narrative

22 June 2015



Mr. Bill Swalling Waters' Edge Investments, LLLP. 5935 S. Zang St., #230 Littleton, CO 80127 Page 1 of 4

Voice: 303-949-2629

RE: Waters' Edge Well Head Noise Reduction Design Recommendations EDI Job # C-4058

Dear Mr. Swalling:

Engineering Dynamics' has investigated noise from Oil Well Heads at the proposed Waters' Edge development located in Fort Collins, Colorado. The letter describes results of sound level measurements which were taken at the five existing Well Heads in and around the Waters' Edge development and noise mitigation options and goals. Figure 1 shows the approximate locations of the Well Heads in and around the development site.

#### 1.0 Site Investigation / Background

Sound level measurements were made a various distances from the drive motors at the five existing Wells Heads in and around the development site. Results of these measurements are shown in Figure 1.1 and Table 1.1. Figure 1.1 is the 1/3-octaveband frequency based sound levels emitted by each Well Head motor and is included more as reference. Table 1.1 shows the measured overall A-weighted sound pressure level at the measurement distance and at the estimated distance of 150 feet to the nearest residence. The measurement locations correspond to the Well Head location ID's given shown in Figure 1.

	WH 1	WH 2	WH 3	WH 4	WH 5	Terry Road with Enclosure
Measured Sound Levels	57.8 dBA @ 25 ft	55.8 dBA @ 15 ft	47.4 dBA @ 100 ft	49.8 dBA @ 50 ft	62.2 dBA @ 15 ft	56.7 dBA @ 3 ft
Sound Level at 150 feet	42.2 dBA	35.8 dBA	43.9 dBA	40.3 dBA	42.2 dBA	22.7 dBA
Sound Level at 150 feet	34.9 dBA	28.4 dBA	36.5 dBA	35.8 dBA	34.8 dBA	<20 dBA

Table 1.1: Well Head Noise Levels

An appropriate design goal is that sound levels from a Well Head at the nearest residence should be at least 5 dBA less than the background sound levels on a typical evening; no rain, no wind, no traffic, no dogs, etc. In this part of Colorado away from traffic typical background sound levels are in the range of  $30 \pm 3$  dBA. Therefore, an appropriate design goal, is for Well Head sound levels to be  $25 \pm 3$  dBA, at the nearest residence; not the nearest residential property line.

Inspection of Table 1.1 shows that using a surface pump, as is used at the Terry Road Well Head location inside an acoustical enclosure will yield sound levels below the design goal.



Waters' Edge 22 June 2015 Page 2 of 4

#### 2.0 Recommendations

Reduction of pump jack noise can be accomplished by applying noise mitigation to the existing pump jack drive motor assembly or replacing the entire pump jack with an electrically driven pump.

- a. Replace existing pump jacks with in ground hydraulic pumps, similar to the existing Terry Road site. This site uses an electric driven hydraulic pump which hydraulically drives the well head pumps. The electric motor and hydraulic pump assembly enclosed in a noise enclosure, constructed as outlined in Section 2.1 below.
- b. Install noise enclosures around the pump jack drive motor portion (only) of the existing well heads. The noise enclosure around existing pump jack drive motors will be similar construction as outlined in Section 2.1 below. The actual size and configuration of these enclosures will need to be designed for maintenance and drive belt shroud access.

#### 2.1 Terry Road Site

EDI's site inspection of the Terry Road site, with the acoustical enclosure showed that the well head hydraulic pump / motor noise is clearly audible through the entry door and the intake and exhaust cooling air silencers. This tone will be in-audible to slightly audible at distances of 100 to 150 feet, although less than the design goal of 25 dBA. Therefore, an acoustical enclosure similar to that at the Terry Road site is acceptable.

Typical construction for this type of enclosure is as follows,

Exterior sheet metal or siding (minimum gauge 20)

3-5/8 inch metal studs (minimum)

R-15 bat insulation in stud cavities.

Interior perforated sheet metal perforated sheet metal. The spec on the perforated sheet metal is http://www.mcnichols.com/product/17183132M2?navCode=cc:round&navCode=avc:AV-90661&navCode=avc:AV-36594

Entry door – solid core metal with jamb seals and sweep. Inlet and exhaust silencers similar to Pottoff Model 18x18x84 RFN 12P http://pottorff.com/media/resource/RFN%20-%20Rectangular%20Fiberglass.PDF

#### 2.2 Landscaping and berming

While landscaping does little to diminish actual sound levels it does provide a psychological separation between the noise source and receiver and a psychological noise reduction. Additionally, for berming to provide any significant noise reduction the berms would need to be 8 to 10 feet high. Berms do however provide a psychological noise reduction.

Therefore, EDI recommends that some type of landscaping, berming, or wooden privacy type fencing be installed around the Well Head area.

If you have any questions, please contact me at our Englewood office.

Sincerely, ENGINEERING DYNAMICS, INC.

Stuart & mednegon

Stuart D. McGregor, P.E. Vice President



3925 S. Kalamath St., Englewood, Colorado 80110 • voice: 303-761-4367 • www.engdynamics.com



Waters' Edge 22 June 2015 Page 4 of 4







## VIGNETTE

Water's Edge Development LLLP 7400 East Crestline Circle Suite 230 Greenwood Village, Co. 80111

FINAL DEVELOPMENT PLANS FORT COLLINS, COLORADO

JOB NO:	13402
ACAD FILE:	13401FDP2
DRAWN:	TCH
CHECKED:	тсн
ISSUE DATE:	MAY 22, 2015
REVISIONS	DATE
SHEET TITLE:	
OVERALL	
SITE PLAN	1

# **EXHIBIT C - TYPE D BUFFERYARD TYPICAL**



**BUFFERYARD TYPICAL STANDARDS** 

350' MINIMUM BUFFER 6' FENCE REQUIRED WHERE BUFFER IS LESS THAN 500'

BUFFERYARD TYPE D REQUIRES THE FOLLOWING PLANT MATERIAL FOR EACH 100 LINEAR FEET OF BUFFER. 6 SHADE TREES

7 ORNAMENTAL TREES 5 EVERGREEN TREES 35 SHRUBS (TYPE 2)

146 SHADE TREES @ \$350 170 ORNAMENTAL TREES @ \$210 130 EVERGREEN TREES @ \$290 845 SHRUBS (TYPE 2) @ \$40 2,800 LF 6' FENCING @ \$22 LF 950 LF 8' ORN. IRON FENCE @ \$40 LF 390,000 SF SOIL PREP AND SEED @\$. 100,000 SF MULCH @ \$1

ANNUAL IRRIGATION WATER COSTS

TOTAL BUFFERYARD COSTS

IRRIGATION

FOR THIS EXAMPLE, BELOW IS THE TOTAL AMOUNT OF PLANT MATERIAL REQUIRED

	\$51,100
	\$35,700
	\$37,700
	\$33,800
	\$61,600
F	\$38,000
15	\$58,500
	\$100,000

ANNUAL WATER USE 1,557,320 GALLONS	
1 INCH IRRIGATION TAP	\$20,000
IRRIGATION SYSTEM COST. COSTS	\$85,000

\$521,400
-----------

\$5,000



anning • Landscape Architect PO BOX 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 866.902.4163 F www.vignettestue

CLIENT

Water's Edge Developm LLLP 7400 East Crestline Circle Suite 230 wood Village, Co



 $\uparrow$ 

SCALE 1"=5

# - TYPICAL ROW (STREET TREES INCLUDED IN BUFFERYARD REQUIREMENTS) TYPICAL LOT LAYOUT - SHED CONTAINED WITHIN OPERATIONS AREA 150' BUFFER LINE - OPEN RAIL FENCE LOCATED AT LOT LINE

#### BUFFERYARD TYPICAL STANDARDS

150' MINIMUM BUFFER 6' FENCE REQUIRED WHERE BUFFER IS LESS THAN 500'

BUFFERYARD TYPE D REQUIRES THE FOLLOWING PLANT MATERIAL FOR EACH 100 LINEAR FEET OF BUFFER (WITH 50% REDUCTION FOR WIDTH OF BUFFER) 1.5 SHADE TREES **1 ORNAMENTAL TREES** 1.5 EVERGREEN TREES 3 SHRUBS (TYPE 1) 5 SHRUBS (TYPE 2)

FOR THIS EXAMPLE, BELOW IS THE TOTAL AMOUNT OF PLANT MATERIAL REQUIRED

20 SHADE TREES **12 ORNAMENTAL TREES** 20 EVERGREEN TREES 96 SHRUBS (TYPE 1&2)

# **EXHIBIT D - TYPE A BUFFERYARD TYPICAL**



nning • PO BOX 1889 Fort Collins, Colorado 80522-188

970.472.9125 T 866.902.4163 F www.vignettestue

CLIENT

Water's Edge Developr LLLP 7400 East Crestline Circle Suite 230 Gree ood Village, Co 80111





# WATERS' EDGE NEIGHBORHOOD

# FORT COLLINS, COLORADO 75% LANDSCAPE CONSTRUCTION DRAWINGS - REVIEW SET -







Planning • Landscape Architecture • Graphics

PO Box 1889, Fort Collins, CO 80522 970.472.9125 T | 970.44.0748 F www.VignetteStudios.com

> **Cover Sheet** Master Landscape Plan, Phasing Diagram & Notes **Construction Details Planting Plans**

# 5 APRIL 2013



# SHEET INDEX



D1 - D2 L1 - L36



anning • Landscape Architecture •Graphic PO Box 1889 Fort Collins, Colorado 80522-188

970.472.9125 1 970.494.0728 F www.vignettestudios.com

5935 S. Zang Street, #230 ittleton, Colorado 8012.

303.949.2629 Project Team







## NOTES

- 1. SURVEY AND BASE INFORMATION PROVIDED BY THE CLIENT. VIGNETTE STUDIOS IS NOT RESPONSIBLE FOR THE ACCURACY OF BASE INFORMATION, INCLUDING UTILITIES.
- 2. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATES PRIOR TO COMMENCING WORK. CALL 800-922-1987 BEFORE DIGGING. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLANS AND SITE CONDITIONS.
- 4. CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROL REQUIRED DURING LANDSCAPE CONSTRUCTION OPERATIONS, SUBJECT TO THE CITY OF FORT COLLINS APPROVAL. COORDINATE SCHEDULE WITH THE CITY ENGINEERING DEPARTMENT, WITH A MINIMUM OF 48 HOUR NOTICE.
- STAGING MAY OCCUR ON THIS PROPERTY, SUBJECT TO CONDITIONS IMPOSED BY THE OWNER. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE THROUGHOUT THE PROJECT SITE WHEN CONSTRUCTION IS COMPLETE, AS INDICATED ON CIVIL ENGINEER'S GRADING PLAN.
- ALL PLANT MATERIALS SHALL BE IN ACCORDANCE WITH ANA SPECIFICATIONS FOR NUMBER ONE GRADE. ALL TREES SHALL BE BALLED & BURLAPPED (ROOT CONTROL BAG), OR CONTAINERIZED AS NOTED IN THE PLANT SCHEDULE.
- ALL LANDSCAPED AREAS SHALL RECEIVE WOOD OR ROCK MULCH AS INDICATED ON PLANS TO A DEPTH OF 3" OVER LANDSCAPE FILTER FABRIC. GLUE FILTER FABRIC TO BACK OF CURB OR SIDEWALK PER MANUFACTURER'S INSTRUCTIONS.
- 10. PLANT ALL TREE STEMS 10' CLEAR FROM WATER AND SANITARY SEWER MAINS, AND 4' CLEAR FROM GAS LINES. PLANT SHRUB STEMS 4' CLEAR FROM WATER AND SANITARY SEWER MAINS. PLANT TREE STEMS MINIMUM 5' AND SHRUB STEMS MINIMUM 2' FROM STORM SEWER LINES.
- 11. LOCATION OF MECHANICAL APPURTENANCES SHOWN ON THIS PLAN IS SCHEMATIC, AND MAY BE ADJUSTED IN THE FIELD. CONTRACTOR TO KEEP ALL TREES AND SHRUBS 5' CLEAR AT MATURITY FROM ELECTRICAL TRANSFORMER AND 3' CLEAR AT MATURITY FROM ELECTRIC METER AND A/C UNITS. CONTRACTOR TO ENSURE A CLEAR PATH THROUGH SHRUB BEDS TO ALL METERS ON BUILDING EXTERIOR WALL.
- 12. CONTRACTOR IS RESPONSIBLE FOR SOIL TESTING AND PROVIDING AMENDMENTS RECOMMENDED BY THE TESTING AGENCY, SUBJECT TO THE APPROVAL OF THE OWNER. 13. TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL AND GRAVEL REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE
- CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING. 14. THE PLANT PALETTE WAS DERIVED THROUGH THE FORT COLLINS WHOLESALE NURSERY
- (www.ftcollinswholesalenursery.com), AND ALAMEDA WHOLESALE NURSERY (www.alamedawholesale.com). MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION, AS REQUIRED BY SITE CONDITIONS OR PLANT AVAILABILITY, SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT. OVERALL QUANTITY, QUALITY, AND DESIGN CONCEPT ARE TO BE CONSISTENT WITH THESE DRAWINGS.
- 15. IN THE EVENT OF A CONFLICT BETWEEN THE PLAN AND QUANTITIES SHOWN IN THE PLANT LIST, THE PLAN SHALL PREVAIL.
- 16. THE SITE SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM, TO BE PREPARED SUBSEQUENT TO THIS REVIEW SET. SHRUB BEDS ARE TO RECEIVE DRIP IRRIGATION, TURF AREAS ARE TO RECEIVE SPRAY IRRIGATION, AND NATIVE TURF AREAS ARE TO RECEIVE WATER VIA A TEMPORARY IRRIGATION SYSTEM THROUGH THE ESTABLISHMENT PERIOD (AND BEYOND AS REQUIRED).

## **TREE PRESERVATION NOTES:**

- EXCEPT AS NOTED.
- DURING CONSTRUCTION.
- REMAIN AS SPECIFIED IN THESE PLANS BEFORE SITE WORK BEGINS.
- EQUIPMENT, WRAP THE TREE TRUNKS TO REMAIN IN TREE WRAP.
- THE CITY FORESTER.
- REMAIN.
- TÓ REMAIN.
- A CLEAN OUT AND PROMPTLY TREATED WITH A TREE SEALANT.

1. ALL TREES AND SHRUBS ON SITE AND WITHIN ADJACENT RIGHT OF WAY SHALL BE PRESERVED,

2. THE CONTRACTOR SHALL ENSURE THAT APPROPRIATE IRRIGATION WATER IS PROVIDED TO EXISTING TREES AND SHRUBS TO REMAIN FOR THE DURATION OF THE PROJECT, INCLUDING

3. TREE BRANCHES THAT INTERFERE WITH CONSTRUCTION EQUIPMENT SHALL BE PROPERLY PRUNED BY A CERTIFIED TREE ARBORIST PRIOR TO BEGINNING CONSTRUCTION. PRUNING SHALL COMPLY WITH APPROVED PRACTICES.

4. A WOOD MULCH LAYER AT 4" DEPTH IS REQUIRED WITHIN THE DRIPLINE OF ALL TREES TO

5. TO PREVENT SCRAPING OR GOUGING THE BARK ON THE TRUNK OR LOWER LIMBS WITH HEAVY

6. A PROTECTIVE FENCE SHALL BE PLACED AT 5' OUTSIDE OF THE DRIPLINE THROUGH THE CURRENT PHASE OF CONSTRUCTION, OR ALONG THE BACK OF EXISTING CURB FOR ALL TREES TO REMAIN WITHIN THE LIMITS OF WORK. NO WORK SHALL OCCUR WITHIN THIS FENCED AREA EXCEPT UNDER THE DIRECT SUPERVISION OF THE LANDSCAPE ARCHITECT AND APPROVED BY

7. SOIL COMPACTION AND GRADING SHALL BE AVOIDED UNDER THE DRIPLINE OF TREES TO

8. NO STORAGE OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN THE DRIPLINE OF THE TREES

9. MAINTAIN POSITIVE DRAINAGE AWAY FROM THE TRUNKS OF TREES TO REMAIN.

10. ALL ROOTS 1 INCH OR LARGER THAT MUST BE SEVERED SHALL BE CUT MANUALLY TO PRODUCE

11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPARABLE REPLACEMENTS FOR ANY EXISTING TREES OR SHRUBS TO REMAIN THAT ARE FOUND BY THE LANDSCAPE ARCHITECT OR CITY FORESTER TO BE IRREPARABLY DAMAGED DURING CONSTRUCTION.

## **OTHER MATERIALS:**

#### Turf Sod

80% Bluegrass / 20% Fescue; "80/20 Xeriscape Blend" by Korby Sod, LLC or approved equal. Native Turf

"Foothills Native Grass Mix" by Applewood Seed Co. or approved equal

(www.applewoodseed.com). Contains: Blue Wildrye, Slender Wheatgrass, Blue Grama, Little Bluestem, Indian Ricegrass, Sandberg Bluegrass, Prairie Junegrass, Green Needlegrass and Needle-and-Thread; Planting rate = 9 PLS/acre; Hydroseed application.

#### Boulders

Place 3 - 5 "Colorado Rose" red sandstone boulders (available at Pioneer Sand & Gravel, www.pioneersand.com) or approved equal. Minimum size =  $\pm 1$  CF; Maximum size =  $\pm 3$  CF; average ±1/2-ton at each location indicated on plan. Quantity: ±82 tons (164 locations)

Benches: 6' Wood bench proposed. [confirm w/ Owner if these are to be spec or custom] Total: 23 proposed.

### Soil Amendments

Thoroughly loosen soil to 6" depth. Apply aged steer manure (six month minimum) to three cubic yards per thousand square feet (3 CY / 1000 SF) to 6" depth in all Turf Sod areas and at two cubic yards per 1,000 square feet (2 CY / 1000 SF) to 6" depth in all Shrub Beds and Native Turf areas.

#### Mulch

Shrub Beds: Unless otherwise noted, all shrub beds shall receive 'Gorilla Hair' shredded Western Red Cedar or equal to three inch (3") minimum depth post-compaction over subgrade and weed barner fabric

#### Adjacent to Raised Planters: 3/4" Road Base, blended color. Street Corners: 3" - 8" Rounded River Rock Cobbles, blended color. Orchards / Vineyards:

Option 1 - Wood mulch spec per above. Option 2 - 3/4-inch river rock cobble above weed barrier fabric Option 3 - Native turf spec per above.

Edging Edges of shrub beds, irrigated turf areas, and soft surface paths not bounded by concrete or asphalt will be edged with a Rolltop 6" Steel Edger or approved equal.

Orchard / Vineyard Surface Treatment:

Soft Surface Paths: 3" Minimum Depth "Maroon Breeze" by Crystal Landscape Supplies or approved equal www.crystallandscapesupplies.com) over compacted subgrade and weed barrier fabric. Contain both sides with landscape edging. Bind with "STALOCK Water Activated Binder" by Stabilizer Solutions Inc. or approved equal (www.stabilizersolutions.com).

#### PLANT SCHEDULE Scientific Name Соттол Name

	ACNE	Acer negundo 'Sensation'
GLTRGleditsia triacanthos inermis'sGYDIGymnocladus dioica 'EspressoPOANPopulus angustifoliaQUBIQuercus bicolorQUBUQuercus buckleyiQUMAQu. macrocarpaQUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	CASP	Catalpa speciosa
GYDIGymnocladus dioica 'EspressoPOANPopulus angustifoliaQUBIQuercus bicolorQUBUQuercus buckleyiQUMAQu. macrocarpaQUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	CEOC	Celtis occidentalis
POANPopulus angustifoliaQUBIQuercus bicolorQUBUQuercus buckleyiQUMAQu. macrocarpaQUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	GLTR	Gleditsia triacanthos inermis "
QUBIQuercus bicolorQUBUQuercus buckleyiQUMAQu. macrocarpaQUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	GYDI	Gymnocladus dioica 'Espresso
QUBUQuercus buckleyiQUMAQu. macrocarpaQUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	POAN	Populus angustifolia
QUMAQu. macrocarpaQUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	QUBI	Quercus bicolor
QUMUQu. muehlengergiiQUROQu. roburTIAMTilia americana 'Redmond'TICOTilia cordata 'Greenspire'	QUBU	Quercus buckleyi
QURO Qu. robur TIAM Tilia americana 'Redmond' TICO Tilia cordata 'Greenspire'	QUMA	Qu. macrocarpa
TIAM Tilia americana 'Redmond' TICO Tilia cordata 'Greenspire'	QUMU	Qu. muehlengergii
TICO Tilia cordata 'Greenspire'	QURO	Qu. robur
	TIAM	Tilia americana 'Redmond'
ULMO Ulmus x 'Morton'	TICO	⊺ilia cordata 'Greenspire'
	ULMO	Ulmus x 'Morton'

ACGM	Acer grandidentatum 'Manzan
ACTA	Acer tataricum 'GarrAnn'
AMGR	Amelanchier x grandiflora 'A
MASS	Malus 'Spring Snow'
MATH	Malus 'Thunderchild'
PRAM	Prunus americana
PYCA	Pyrus calleryana 'Autumn Blaz
QURF	Quercus robur 'Fastigiata'
FRUIT T	REES
MAHO	Malus 'Honeycrisp'
MARD	Malus 'Red Delicious'
MAMC	Malus 'McIntosh'
MACO	Malus 'Cortland'
MAHA	Malus 'Haralson'
MASR	Malus 'September Ruby'
PRCA	Prunus 'Pioneer'
PRBA	Prunus 'Bali'
PRME	Prunus 'Mesabi'
NN NN	nn m
PRMÓ	Prunus 'Montmorency'
PRNA	Prunus 'North Star'
PRST	Prunus 'Stanley'
PRTÓ	Prunus tomentosa 'White Deli
EVERGR	FEN TREES

JUSC	Juniperus scopulorum
JSCO	Ju. scopulorum 'Cologreen'
PIPU	Picea pungens glauca
PIGD	Picea glauca 'Densata'
PIED	Pinus edulis
PIFL	Pinus flexilis 'Vanderwolf's Py
PINI	Pinus nigra
PIPO	Pinus ponderosa
PISY	Pinus sylvestris

<u></u>	<u>30 0111(300</u>
AMAL	Amelanchier alnifolia
ARCA	Artemisia cana
ARFR	Artemisia frigida
ARTR	Artemisia tridentata
CHNA	Chrysothamnus nauseosus all
CHNN	Chrysothamnus nauseosus na
RHGC	Rhus glabra 'Cismontana'
RHTR	Rhus trilobata
RHTA	Rhus trilobata 'Autumn Amber'
RIAU	Ribes aureum 'Gwen's Buffalo'
RICE	Ribes cereum
riod	Ribes odoratum 'Crandall'
RISA	Ribes sativum 'Blanca'
RIRL	Ribes sativum 'Red Lake'
ROSA	Rosa x 'Cuthbert Grant'
ROSA	Rosa x 'Morden Blush'
ROSA	Rosa x Morden Snowbeauty
ROSA	Rosa x 'Morden Sunrise'
ROWP	Rosa x 'Winnipeg Parks'
ROWO	Rosa woodsii
RUAB	Rubus 'Autumn Bliss'
RUAN	Rubus 'Anne'
RUFG	Rubus 'Fall Gold'
RUJE	Rubus 'Jewell'
RUPL	Rubus 'Plainsman'
RUDE	Rubus deliciosus
VICO	Vitis 'Concord'
VIFS	Vitis 'Flambeau Seedless'
VIMA	Vitis 'Marquette'
VIDE	Viburnum dentatum 'Christom'

UHO Juniperus horizontalis 'Blue	
USA J sabina var tamariscifolia	
UBC J. scopulorum 'Blue Creeper	A
UPR J. procumbens 'Green Moun	ď
MVC Pinus mugo 'Valley Cushion	'
SHC Pinus sylvestris 'Hillside Cre	epe

ORNAM	ENTAL GRASSES
CAAC	Calamagrostis x acutiflora 'Ka
HE\$B	Helictotrichon sempervirons 'l
MISP	Miscanthus sinensis purpures
MISY	Mi, sinensis 'Yaku Jima'
SCSC	Schizachyrium scoparium 'The

ACNE CASP CEOC GLTR GYDI POAN QUBI QUBU QUMU QUMU QUMU QURO TIAM TICO ULMO <b>ORNAMEN</b> ACGM ACTA AMGR MASS MATH PRAM	US SHADE TREES Acer negundo 'Sensation' Catalpa speciosa Celtis occidentalis Gleditsia triacanthos inermis 'Skycole' Gymnocladus dioica 'Espresso' Populus angustifolia Quercus bicolor Quercus bicolor Quercus buckleyi Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Sensation Maple Westem Catalpa Westem Hackberry Skyline Honeylocust Espresso Kentucky Coffeetree Narrowleaf Cottonwood Swamp white oak Texas Red Oak Burr Oak Chinkapin Oak English Oak Redmond Linden	36 28 62 83 62 26 18 62 67	#15 2" cal 2" cal 2" cal 2" cal #15 2" cal 2" cal	Cont. B+B B+B B+B Cont. B+B B+B	Male clone. Seedless clone.
CASP CEOC GLTR GYDI POAN QUBI QUBU QUMU QUMU QURO TIAM TICO ULMO <b>ORNAMEN</b> ACGM ACTA AMGR MASS MATH PRAM	Catalpa speciosa Celtis occidentalis Gleditsia triacanthos inermis 'Skycole' Gymnocladus dioica 'Espresso' Populus angustifolia Quercus bicolor Quercus buckleyi Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Western Catalpa Western Hackberry Skyline Honeylocust Espresso Kentucky Coffeetree Narrowleaf Cottonwood Swamp white oak Texas Red Oak Burr Oak Chinkapin Oak English Oak Redmond Linden	28 62 83 62 26 18 62 67	2" cal 2" cal 2" cal 2" cal #15 2" cal 2" cal	B+B B+B B+B Cont. B+B	
GLTR GYDI POAN QUBI QUBU QUMA QUMU QURO TIAM TICO ULMO <b>ORNAMEN</b> ACGM ACTA AMGR MASS MATH PRAM	Gleditsia triacanthos inermis 'Skycole' Gymnocladus dioica 'Espresso' Populus angustifolia Quercus bicolor Quercus buckleyi Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Skyline Honeylocust Espresso Kentucky Coffeetree Narrowleaf Cottonwood Swamp white oak Texas Red Oak Burr Oak Chinkapin Oak English Oak Redmond Linden	83 62 26 18 62 67	2" cal 2" cal #15 2" cal 2" cal	B+B B+B Cont. B+B	Seedless clone.
GYDI POAN QUBI QUBU QUMA QUMU QURO TIAM TICO ULMO <b>ORNAMEN</b> ACGM ACTA AMGR MASS MATH PRAM	Gymnocladus dioica 'Espresso' Populus angustifolia Quercus bicolor Quercus buckleyi Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Espresso Kentucky Coffeetree Narrowleaf Cottonwood Swamp white oak Texas Red Oak Burr Oak Chinkapin Oak English Oak Redmond Linden	62 26 18 62 67	2" cal #15 2" cal 2" cal	B+B Cont. B+B	Seedless clone.
POAN QUBI QUBU QUMA QUMU QURO TIAM TICO ULMO <b>ORNAMEN</b> ACGM ACTA AMGR MASS MATH PRAM	Populus angustifolia Quercus bicolor Quercus buckleyi Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Narrowleaf Cottonwood Swamp white oak Texas Red Oak Burr Oak Chinkapin Oak English Oak Redmond Linden	26 18 62 67	#15 2" cal 2" cal	Cont. B+B	
QUBU QUMA QUMU QURO TIAM TICO ULMO ACGM ACTA AMGR MASS MATH PRAM	Quercus buckleyi Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Texas Red Oak Burr Oak Chinkapin Oak English Oak Redmond Linden	62 67	2" cal		
QUMA QUMU QURO TIAM TICO ULMO ACGM ACTA AMGR MASS MATH PRAM	Qu. macrocarpa Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Burr Oak Chinkapin Oak English Oak Redmond Linden	67			
QUMU QURO TIAM TICO ULMO <b>ORNAMEN</b> ACGM ACTA AMGR MASS MATH PRAM	Qu. muehlengergii Qu. robur Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Chinkapin Oak English Oak Redmond Linden		2" cal	B+B	
TIAM TICO ULMO ACGM ACTA AMGR MASS MATH PRAM	Tilia americana 'Redmond' Tilia cordata 'Greenspire' Ulmus x 'Morton'	Redmond Linden	59	2" cal	B+B	
TICO ULMO ACGM ACTA AMGR MASS MATH PRAM	Tilia cordata 'Greenspire' Ulmus x 'Morton'		51	2" cal	B+B	
ULMO ORNAMEN ACGM ACTA AMGR MASS MATH PRAM	Ulmus x 'Morton'	Greenspire Linden	74 75	2" cal 2" cal	B+B B+B	
ACGM ACTA AMGR MASS MATH PRAM	NTAL TREES	Accolade Elm	76	2" cal	B+B	
ACTA AMGR MASS MATH PRAM	Acer grandidentatum 'Manzano'	Manzano Bigtooth Maple	35	#15	Cont.	
MASS MATH PRAM	Acer tataricum 'GarrAnn'	Hotwings Tatarican Maple	49	1.5"	B+B	Multistem
MATH PRAM	Amelanchier x grandiflora 'A. Brilliance'	Autumn Brilliance Serviceberry	46	#15	Cont.	Multistem
PRAM	Malus 'Spring Snow' Malus 'Thunderchild'	Spring Snow Crabapple Thunderchild Crabapple	21 15	1.5" 1.5"	B+B B+B	
PYCA	Prunus americana	American Plum	212	#5	Cont.	Multistem; shrub form acceptable
	Pyrus calleryana 'Autumn Blaze' Quercus robur 'Fastigiata'	Autumn Blaze Pear Columnar English Oak	30 37	1.5" 1.5"	B+B B+B	
FRUIT TR	EES					
	Malus 'Honeycrisp' Malus 'Red Delicious'	Honeycrisp Apple Red Delicious Apple	21 <b>4</b> 1	#5 #5	Cont. Cont.	
	Malus 'McIntosh'	McIntosh Apple	19	#5	Cont.	
	Malus 'Cortland' Malus 'Haralson'	Cortland Apple	35 50	#5 #5	Cont. Cont.	
	Malus 'September Ruby'	Haralson Apple September Ruby Apple	50 60	#5 #5	Cont.	
	nn nn	ил ил	22	#10	Cont.	Larger size proposed in Courtyards
	Prunus 'Pioneer'	Pioneer Chinese Apricot	43	#5	Cont.	
PRBA PRME	Prunus 'Bali' Prunus 'Mesabi'	Bali Cherry Mesabi Cherry	25 22	#5 #5	Cont. Cont.	
			17	#J #10	Cont.	Larger size proposed in Courtyards
	Prunus 'Montmorency'	Montmorency Cherry	55	#5	Cont.	
	Prunus 'North Star'	North Star Cherry	70	#5	Cont.	
	Prunus 'Stanley' Prunus tomentosa 'White Delight'	Stanley Plum White Delight Nanking Cherry	45 13	#5 #5	Cont. Cont.	
	EEN TREES	White Delight Harning orieny	10		ount.	
JUSC	Juniperus scopulorum	Rocky Mountain Juniper	56	#7 #7	Cont.	
	Ju. scopulorum 'Cologreen' Picea pungens glauca	Cologreen Juniper Colorado Blue Spruce	183 28	#7 6' ht	Cont. B+B	
PIGD	Picea glauca 'Densata'	Black Hills Spruce	21	6' ht	B+B	
	Pinus edulis	Pinyon Pine	58	4' ht.	B+B	
	Pinus flexilis 'Vanderwolf's Pyramid' Pinus nigra	Vanderwolf's Limber Pine Austrian Pine	42 39	6' ht 6' ht	B+B B+B	
	Pinus ponderosa	Ponderosa Pine	96	6'ht	B+B	
	Pinus sylvestris	Scotch Pine	23	6' ht	B+B	
	<u>US SHRUBS</u> Amelanchier alnifolia	Saskatoon Serviceberry	293	#2	Cont.	
	Artemisia cana	Silver Sage	20	#1	Cont.	
	Artemisia frigida	Fringed Sage	158	#1	Cont.	
	Artemisia tridentata Chrysothamnus nauseosus albicaulis	Tall Western Sage Tall Blue Rabbitbrush	97 106	#1 #1	Cont. Cont.	
	Chrysothamnus nauseosus nauseosus	Dwarf Baby Blue Rabbitbrush	160	#1	Cont.	
RHGC	Rhus glabra 'Cismontana'	Rocky Mountain Sumac	315	#2	Cont.	Co. native
	Rhus trilobata Rhus trilobata 'Autumn Amber'	Three-leaf Sumac Autumn Amber Sumac	26 239	#2 #2	Cont. Cont.	Co. native Groundcover (1.5' typ. ht.)
	Ribes aureum 'Gwen's Buffalo'	Gwen's Buffalo Currant	235	#2 #2	Cont.	Edible fruit
RIĈE	Ribes cereum	Wax Currant	279	#2	Cont.	Edible fruit
	Ribes odoratum 'Crandall'	Crandall's Clove Currant	288	#2	Cont.	Edible fruit
	Ribes sativum 'Blanca' Ribes sativum 'Red Lake'	Blanca Currant Red Lake Currant	189 159	#3 #3	Cont. Cont.	Edible fruit Edible fruit
	Rosa x 'Cuthbert Grant'	Cuthbert Grant Rose	15	#3	Cont.	Parkland Series: Dark Red
	Rosa x 'Morden Blush'	Morden Blush Rose	15	#3	Cont.	Parkland Series: Pink
	Rosa x 'Morden Snowbeauty' Rosa x 'Morden Sunrise'	Morden Snowbeauty Rose Morden Sunrise Rose	14 14	#3 #3	Cont. Cont.	Parkland Series: White Parkland Series: Orange - Yellow
	Rosa x 'Winnipeg Parks'	Winnipeg Parks Rose	58	#3 #3	Cont.	Parkland Series: Red
ROWO	Rosa woodsii	Wood's Rose	257	#2	Cont.	Co. native; Pink
RUAB	Rubus 'Autumn Bliss'	Autumn Bliss Raspberry	99	#1	Cont.	Vine; edible; thoms
	Rubus 'Anne' Rubus 'Fall Gold'	Anne Raspberry Fall Gold Raspberry	92 84	#1 #1	Cont. Cont.	Vine; edible; thoms Vine; edible; thoms
	Rubus 'Jewell'	Jewell Black Raspberry	81	#1	Cont.	Vine; edible; thoms
RUPL	Rubus 'Plainsman'	Plainsman Raspberry	89	#1	Cont.	Vine; edible; thoms
	Rubus deliciosus Vitis 'Concord'	Boulder Raspberry (Thimbleberry) Concord Grape	203 99	#2 #1	Cont. Cont.	Co. native; edible fruit; thoms vine; train
	Vitis 'Flambeau Seedless'	Flambeau Seedless Grape	99 90	#1 #1	Cont. Cont.	vine; train
	Vitis 'Marquette'	Marquette Grape	90	#1	Cont.	vine; train
	Viburnum dentatum 'Christom'	Blue Muffin Vibumum	208	#5	Cont.	
JUHO	E <mark>EN SHRUBS</mark> Juniperus horizontalis 'Blue Chip'	Blue Chip Juniper	345	#3	Cont.	
JUSA	J. sabina var. tamariscifolia	Tammy Juniper	163	#3	Cont.	
	J. scopulorum 'Blue Creeper' J. procumbens 'Green Mound'	Blue Creeper Juniper Green Mound Juniper	177 76	#3 #3	Cont. Cont.	
	J. procumbens 'Green mound' Pinus mugo 'Valley Cushion'	Green Mound Juniper Valley Cushion Mugo Pine	131	#3 #3	Cont. Cont.	
	Pinus sylvestris 'Hillside Creeper'	Hillside Creeper Pine	50	#3	Cont.	
	NTAL GRASSES Calamagrostis x acutiflora 'Karl Foerster'	KF Feather Reed Grass	1608	4"	Cont.	
	Helictotrichon sempervirons 'Blue Sapphire'	Sapphire Blue Oat Grass	281	4 4"	Cont.	
MISP	Miscanthus sinensis purpurescens	Purple Maiden Grass	648	4"	Cont.	
	Mi. sinensis 'Yaku Jima' Schizachyrium scoparium 'The Blues'	Dwarf Maiden Grass The Blues Little Bluestem	227 1679	4" 4"	Cont. Cont.	
	EOUS PERENNIALS					
ACAG	Achillea ageratifolia Hemerocallis 'Chicago Apache'	Greek Yarrow Chicago Apache Daylilly (Pink)	99 113	#1 #1	Cont. Cont.	18" Spacing 18" Spacing
HEJN	Hemerocallis 'Jolyenne Nichole'	Jolyenne Nichole Daylilly (Orange)	76	#1	Cont.	18" Spacing
	Hemerocallis 'Rocket City'	Rocket City Daylilly (Red)	96 21	#1 #1	Cont.	18" Spacing
	Helianthemum nummalarium Iberis sempervirens 'Alexander's White'	Sunrose Alexander's White Candytuft	21 66	#1 #1	Cont. Cont.	12" Spacing 18" Spacing
LAAN	Lavandula angustifolia 'Munstead'	English Lavender	137	#1	Cont.	12" Spacing
CACLL.	Santolina chamaecyparissus	Lavender Cotton Germander	179	#1 #1	Cont. Cont.	18" Spacing
	Techrium chamaedrys	[ 'AMAA A 44'	66	#1	1 00*	18" Spacing



Planning • Landscape Architecture • Graphics PO Box 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 970.494.0728 F www.vignettestudios.com



Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team







NO/20					
1.	DO NOT CUT OR DAMAGE LEADER. PRUNE DAMAGED OR DEAD WOOD IMMEDIATELY PRIOR TO PLANTING. NEVER LEAVE "V" CROTCHES OR DOUBLE LEADER UNLESS TYPICAL OF SPECIES.				
2.	CUT TWINE AND BURLAP FROM AROUND TRUNK, PULL BACK. REMOVE ALL BURLAP AND WIRE BASKETS				



VIGNETT

Planning • Landscape Architecture •Graphics PO Box 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 970.494.0728 F www.vignettestudios.com

Prepared for

Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team





NTS

NTS

NTS













1/4<sup>11</sup> = 1<sup>1</sup> - 0<sup>11</sup>

1/4<sup>11</sup> = 1<sup>1</sup> - 0<sup>11</sup>

## Notes

- 1. All wood to be Rough Sawn Cedar. Stain TBD (match ex. Richards' Lake neighborhood open space fences).
- 2. Unless otherwise noted on plans, allow a minimum of 8" Clear between post and adjacent trail edge.
- 3. Post Cap: Prefabricated (spec)
- 4. Column Faux Stone / Grout: Match community center architecture faux stone (spec)
- 5. Column Cap: Prefabricated (spec); mortar in place; grout joints.
- 6. Post Base: Poured in place concrete. Integral stain to match Column Cap.
- 7. Connection Hardware: StrongTie series, galvanized. Size per structural engineer. 8. Fido House Dispenser: by Peachtree Business Products, #HLMFD2Z (Green); Receptacle: by Peachtree Business Products, #HLM1, #10 size (Green); Install per manufacturer.
- 9. Provide shop drawings and material samples to Landscape Architect for approval prior to start of construction.



VIGNETTE

Planning • Landscape Architecture •Graphics

Fort Collins, Colorado 80522-1889

Waters' Edge Developments, LLC

PO Box 1889

970.472.9125 T

970.494.0728 F

Prepared fo

www.vignettestudios.com



5% ort

#### SHEET TITLE: CONSTRUCTION DETAILS











**VIGNETTE** 

Planning • Landscape Architecture • Graphics

studi





VIGNETTE





#### Legend Bluegrass / Fescue Sod Key Ourtyard Gate 1 (TBD) B Courtyard Gate 2 (TBD) <sup> </sup> <sup> </sup> <sup> </sup> <sup> </sup> Dryland Turf Seed $\checkmark$ $\checkmark$ Courtyard Gate 3 (TBD) Mix Den Space Entry Arbor (4/D2) Rock Mulch (Planters) $\langle X X X X X$ Primary Entry Monument (1/D2) $\times \times \times$ Neighborhood Entry Column (2/D2) Orchard Groundcover **G** Patio with Fire Pit (TBD) Treatment Patio with Fountain (TBD) 🕅 3" - 8" River Rock Median Arbor (3/D2) Cobbles 🚯 Arbor Structure & Seat Wall (TBD) Soft Surface Path Soft Surface Path (may need erosion control) Perennial Bed Lyons Red Flagstone 6' Bench Paving Street Light by City and Boulders Open Rail Fence per 5/D1 ---- Courtyard Fence per 4/D1 (TBD)



SHEET TITLE: PLANTING PLAN SHEET NO: L5

ğ

olorado

Collin

Fort

13502

LRM

TCH











VIGNETTE

Planning • Landscape Architecture •Graphics

Fort Collins, Colorado 80522-1889

PO Box 1889

970.472.9125 T

970.494.0728 F

Prepared fo

www.vignettestudios.com



5 APRIL 2013

DATE

PLANTING PLAN

SHEET NO:

ISSUE DATE:

REVISIONS









Planning • Landscape Architecture • Graphics PO Box 1889

Fort Collins, Colorado 80522-1889 970.472.9125 T

970.494.0728 F

www.vignettestudios.com Prepared for





---- Courtyard Fence per 4/D1 (TBD)

\_\_\_\_

Open Rail Fence per 5/D1







		JEND				
	Bluegrass / Fescue Sod	<b>Key</b> Ocurtyard Gate 1 (TBD)				
$\begin{array}{ccc} \psi & \psi & \psi \\ \psi & \psi & \psi \\ \psi & \psi & \psi \end{array}$	Dryland Turf Seed Mix	<ul> <li>Courtyard Gate 2 (TBD)</li> <li>Courtyard Gate 3 (TBD)</li> </ul>				
Rock I	Rock Mulch (Planters)	<ul> <li>Open Space Entry Arbor (4/D2)</li> <li>Primary Entry Monument (1/D2)</li> </ul>				
+ + + + + + + + + + + + + + + + + + +	Orchard Groundcover Treatment	<ul> <li>Neighborhood Entry Column (2/D2)</li> <li>Patio with Fire Pit (TBD)</li> </ul>				
	3" - 8" River Rock Cobbles	<ul> <li>Patio with Fountain (TBD)</li> <li>Median Arbor (3/D2)</li> </ul>				
	Soft Surface Path	<ul> <li>Arbor Structure &amp; Seat Wall (TBD)</li> <li>Soft Surface Path (may need erosic control)</li> </ul>				
	Lyons Red Flagstone Paving	erenni ☐ 6' Bench ☐ 6' Bench ☐ 6' Bench ☐ 8ed Bed Boulder				
		Open Rail Fence per 5/D1				
		Courtyard Fence per 4/D1 (TBD)				


















### Legend

<b>Key</b> Courtyard Gate 1 (TBD)
<ul> <li>Courtyard Gate 2 (TBD)</li> <li>Courtyard Gate 3 (TBD)</li> </ul>
<ul> <li>Open Space Entry Arbor (4/D2)</li> <li>Primary Entry Monument (1/D2)</li> </ul>
<ul> <li>Patio with Fire Pit (TBD)</li> </ul>
<ul> <li>Patio with Fountain (TBD)</li> <li>Median Arbor (3/D2)</li> </ul>
<ul> <li>Arbor Structure &amp; Seat Wall (TBD)</li> <li>Soft Surface Path (may need erosion control)</li> </ul>
6' Bench Eed
<ul> <li>Street Light by City so Boulders</li> <li>Open Rail Fence per 5/D1</li> </ul>
Courtyard Fence per 4/D1 (TBD)







Planning • Landscape Architecture •Graphics PO Box 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 970.494.0728 F www.vignettestudios.com

Prepared for



Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team



















Fort Collins, Colorado 80522-1889 970.472.9125 T

970.494.0728 F www.vignettestudios.com



Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T

Project Team

NTS







VIGNETTE stu Planning • Landscape Architecture •Graphics PO Box 1889 Fort Collins, Colorado 80522-1889 970.472.9125 T 970.494.0728 F www.vignettestudios.com Prepared Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127 303.949.2629 T Project Team ŝ 

Draw C U Landscape Construction Collins, Colorado 60 C 0 50 75% Fort JOB NO: <u>13502</u> ACAD FILE: <u>WE-LSCP-CDs.DWG</u> DRAWN:\_ LRM CHECKED: TCH 5 APRIL 2013 ISSUE DATE:\_ REVISIONS DATE

SHEET TITLE:

PLANTING PLAN









Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team

Prepared fo









sheet no:



VIGNETTE studios

Planning • Landscape Architecture • Graphics

Fort Collins, Colorado 80522-1889

PO Box 1889

970.472.9125 T

970.494.0728 F





NTS



Planning • Landscape Architecture •Graphics PO Box 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 970.494.0728 F www.vignettestudios.com

Prepared for



Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team





Legend

ue Sod	Кеу
	Ourtyard Gate 1 (TBD)
d	B Courtyard Gate 2 (TBD)
	Courtyard Gate 3 (TBD)
nters)	Dopen Space Entry Arbor (4/D2)
	Primary Entry Monument (1/D2)
cover	Neighborhood Entry Column (2/D2)
	Patio with Fire Pit (TBD)
k	🕀 Patio with Fountain (TBD)
	Median Arbor (3/D2)
	K Arbor Structure & Seat Wall (TBD)
h	Soft Surface Path (may need erosic
	control)
tone	6' Bench
	Street Light by City and Boulde

 Soft Surface Path
 Soft Surface Path (may need erosion control)

 Lyons Red Flagstone Paving
 6' Bench
 Perennial Bed

 Street Light by City
 Boulders

 Open Rail Fence per 5/D1

 Courtyard Fence per 4/D1 (TBD)

PLANTING PLAN







### LEGEND Bluegrass / Fescue Sod Key A Courtyard Gate 1 (TBD)

















LIMIT OF WORK (BACK OF CURB





970.472.9125 T 970.494.0728 F www.vignettestudios.com



Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team















NTS





VIGNETTE

Planning • Landscape Architecture •Graphics

Fort Collins, Colorado 80522-1889

PO Box 1889

970.472.9125 T

970.494.0728 F

Prepared for

www.vignettestudios.com











Planning • Landscape Architecture • Graphics PO Box 1889 Fort Collins, Colorado 80522-1889

970.472.9125 T 970.494.0728 F www.vignettestudios.com



Waters' Edge Developments, LLC 5935 S. Zang Street, #230 Littleton, Colorado 80127

303.949.2629 T Project Team





NTS











VIGNETTE studios









### DANCING WILLOWS

In Conjunction with:

Jefferson County

Foothills Park and Recreation District

Urban Drainage

EPA

**Army Core of Engineers** 

Denver Water: Environment Department, Liz Gardner

### DANCING WILLOWS

### STOCK POND - CATTLE DESTROYED WETLAND WHEN WATERING

















*In Conjunction with:* 

Jefferson County

**Foothills Park and Recreation District** 

Urban Drainage

EPA

Army Core of Engineers

Denver Water: Environment Department, Liz Gardner

### STOCK POND WAS STAGNANT AND LEACHING



### TREES HAD DIED AT STOCK POND



### WETLAND WAS CHANNELIZING AND DYING



# WETLAND WAS CHANNELIZING AND DYING












## Memorandum

To:	Bill Swalling, Waters' Edge
From:	Judy Dorsey, Shelby Sommer
CC:	Layne Kottmeier, Cindy McGrath
Date:	August 26, 2015
Re:	Executive Summary of Waters' Edge Sustainability Analysis

This memorandum provides a summary of the findings and recommendations from Brendle Group's identification and analysis of sustainability-related opportunities for the proposed Waters' Edge development. Our initial efforts focused on completing a baseline assessment of planned sustainability measures, including qualitative review plus quantitative analysis of baseline conditions when possible. Next, we helped identify opportunities to further integrate sustainability concepts into the neighborhood, and opportunities to enhance alignment with other City of Fort Collins and service provider objectives. The following findings emerged from our review of the preliminary site plans and conceptual neighborhood programming:

- LEED ND certification is not realistic due to its proposed location on prime agricultural land; however, it remains a useful framework for informing the design of future phases.
- The proposed neighborhood concept goes above and beyond most typical developments in terms of addressing and achieving City of Fort Collins policy goals in addition to code requirements.
- Numerous triple bottom line elements and sustainability concepts are already considered and planned –the greatest opportunities for enhancements appear to be in the environmental and economic arenas. Our findings and recommendations to further these concepts are summarized on the following pages.

### Summary of Sustainability Opportunities and Analysis

### ENERGY

Total energy costs for the western side of the neighborhood (Phase 1) are estimated at \$425,000 annually; estimated energy costs for the eastern portion (Phase 2) are estimated at \$582,000 annually. Investments into energy efficiency can help save future residents money on their utility bills, and will support the City of Fort Collins' carbon reduction efforts. Furthermore, incorporation of renewable energy sources, such as rooftop or land-mounted solar photovoltaic (PV) systems, can help stabilize energy costs, and can also support the City's climate action goals.

The major energy-related sustainability elements to consider incorporating into the neighborhood planning and building design include the following:

- Emphasize Building Efficiency We recommend that all new buildings (residential and commercial) should at a minimum, be built to ENERGY STAR specifications to maximize building performance and reduce operating costs. An ENERGY STAR home is estimated to cost approximately \$2,400 more in construction costs than typical new construction (built to 2012 International Building Code levels); estimated utility savings are approximately \$300 per year per unit on average, representing an approximate 30 percent reduction in utility savings overall. A more ambitious option would be to target net zero energy construction, wherein residential savings could be as much as \$900 per year.
- **Generate Renewable Energy** The City of Fort Collins is actively looking to increase the amount of solar energy generated in the community with a rough target of approximately 60 Megawatts installed within the next 5 years through a combination of individual, community, and utility-scale projects. We recommend using a mix of rooftop and land-mounted solutions to provide market differentiation and to broaden community opportunities for solar participation beyond the boundaries of the Waters' Edge neighborhood.

### WATER

The Net Zero Water Planning Toolkit (recently launched for building-scale applications) is a helpful resource in developing an estimated water footprint of the site, identifying potential water quantity and quality targets, and exploring different pathways to achieve those targets. Assuming that irrigation accounts for half of residential water use at Waters' Edge, the estimated baseline annual water footprint for Phase 1 is 46.1 million gallons. Water-related elements to consider going forward include the following:

- Use Only as Much Water as is Available Approximately 43 million gallons of precipitation falls on the Phase 1 site area during an average precipitation year, making that a realistic but achievable goal for overall water use given the water footprint of 46 million gallons While this water cannot be captured and used directly, we recommend that this value represent an upper limit on the total amount of water consumed for all neighborhood activities. A slightly more aggressive water quantity target would be 140 gallons per capita per day (or roughly 36.5 million gallons) to align with the City of Fort Collins' 2009 Water Conservation Plan's 2020 goal, as well as aligning the footprint with annual precipitation during drought years or in the face of future climate change
- Reduce Water Quality Impacts to Previous Site Conditions The City of Fort Collins' already requires development to plan for and reduce water quality impacts based on the amount of

runoff generated. We recommend that a more aggressive design goal be used to drive water quality planning – one that aims to reduce water quality impacts to previous site conditions (e.g., undeveloped or agricultural). Preliminary plans for constructed wetlands and extended detention will help support this goal; other effective methods include disconnecting impervious areas (i.e., directing downspouts onto landscape areas rather than pavement), integrating pervious pavement areas, and integrating rain gardens into smaller runoff areas (in combination with larger detention areas).

### WASTE

The City of Fort Collins' 2013 Road to Zero Waste Plan establishes a goal for 90 percent waste diversion by 2025. The estimated baseline waste footprint for Waters' Edge is approximately 700 tons per year for Phase 1 residents. To help support the Road to Zero Waste Plan goals, we recommend consideration of the following waste opportunities:

- Continue to Explore Neighborhood Composting Program Options Preliminary planning for a neighborhood composting program at Waters' Edge is already underway by Gallegos Sanitation; however, pending revisions to state regulations for composting facilities add uncertainty to this concept in the near-term. We recommend that a neighborhood or curbside composting program continue to be explored as those regulations are clarified, and as discussions continue with the waste service provider. Another service to explore if future neighborhood composting regulations are limiting is the use of Gallegos Sanitation's Yard Waste program, which allows all organic (non-animal) material. Since the program runs spring through fall, it may not be a year-round solution to reduce organic waste sent to the landfill.
- **Provide Expanded Waste Options for Future Occupants** Since the planned neighborhood will have a large population of senior residents, we recommend making it very easy for those residents to make the "right" waste-related decisions. Not only would this include providing waste and recycling services for residents (as required by the City), but also providing areas for community collection of hard-to-recycle and hazardous materials since many of the existing facilities for these items (including the City's periodic household hazardous waste events) are a long distance from the neighborhood. Furthermore, neighborhood bulk purchasing programs, and separate glass and cardboard recycling facilities could also enhance the neighborhood's potential to achieve the City's Zero Waste Plan goals.

### CLIMATE

As outlined in its Climate Action Plan Framework, the City of Fort Collins aims to reduce community GHG emissions 30 percent below 2005 levels by 2020, 80 percent by 2030, and 100 percent by 2050 (carbon neutrality). The baseline annual carbon footprint for Waters' Edge (Phases 1 and 2) is estimated at 15,700 metric tons of carbon dioxide equivalent (MTCO2e or "carbon"). It is important to note that the development of the Waters' Edge neighborhood will actually increase overall community carbon emissions, but there are some timely opportunities for Waters' Edge to play a role in piloting strategies identified in the Climate Action Plan Framework, as well as incorporating projects and features that could help reduce existing community emissions.

The most significant contributions that Waters' Edge can make in terms of limiting (or mitigating) the carbons emissions it generates are through investing in high-efficiency buildings, obtaining energy from renewable sources, and designing a pedestrian and bicycle-friendly mixed-use environment that will help minimize vehicle miles traveled (VMT). A mix of shops and services at Waters' Edge may also lead

to reductions in VMT from nearby neighborhoods if those residents replaced some of their longer trips to shops and services with shorter ones to Waters' Edge.

We find it is very realistic for Waters' Edge to achieve a 30 percent or more reduction in carbon emissions as compared to a typical neighborhood development if measures such as high efficiency construction, renewable energy generation, alternative and fuel efficient vehicles, mixed-use development, and local food production are fully incorporated and implemented. To further support the City's climate goals and drive near-term implementation, we recommend the following:

- Embrace Electric Vehicles and Equipment The City of Fort Collins' Climate Action Plan Framework calls for the accelerated adoption of fuel efficient and electric vehicles and equipment. As such, new neighborhoods should be designed to provide electric vehicle charging opportunities for both residents and visitors in public and private spaces. Given the Waters' Edge neighborhood's senior demographics, we think it presents unique opportunities to introduce new vehicle concepts such as Neighborhood Electric Vehicles (NEVs) that will help reduce trips in regular vehicles, which will in turn reduce vehicle-related emissions. Similarly, under a commonly managed sustainable landscaping/irrigation district (described below), the neighborhood would have unique opportunities to embrace commercial-scale electric landscape maintenance equipment.
- Continue to Explore a Sustainable Landscaping/Irrigation District Concept Preliminary
  planning is underway for a centrally managed landscape and irrigation service provided via a
  special district. We find this to be an opportunity for the City of Fort Collins to pilot non-potable
  water delivery within the City limits without being a service provider. Since Brendle Group does
  not have insight into the financial pro-forma of the development or potential special district, we
  cannot recommend whether or not this is the only financing option. However, the concept is
  intriguing and would likely add structure, longevity, and financial tools beyond what could be
  expected from a typical homeowners' association.

### Conclusion

We find Water's Edge uniquely positioned to support the Fort Collins community in myriad ways that enhance individual, neighborhood, and community sustainability as follows:

- Adding inventory through a mix of housing types in a tight housing market;
- Expanding housing options for the region's growing senior population;
- Providing opportunities to pilot sustainability concepts in a new neighborhood environment that can be monitored and studied over time;
- Raising the bar for new greenfield development projects to maximize remaining land available for development.











# WATERS' EDGE WEST

January 9, 2015 © kga



Care Giver Suite Plan

# SKYLAND MEADOWS DEVELOPMENT LTD.





## **COTTAGE STYLE**



## **MOUNTAIN RUSTIC**



**SIERRA PACIFIC** 



|/4" = |'-*0*"



I,719 SQ. FT.



## **COTTAGE STYLE**



## **MOUNTAIN RUSTIC**



## SIERRA PACIFIC













