

GENERAL BACKGROUND

Site and Context

Boulder Creek Commons is intended to provide infill housing on one of the very few opportunity sites set aside for low density residential use remaining under the Boulder Valley Comprehensive Plan. The annexation of the Hogan-Pancost parcel to the City of Boulder as Residential Low Density Land Use fills in an enclave of housing on the south side of the East Boulder Recreation Center – the most significant public amenity investment on the southern half of the city.

East Boulder Recreation Center and Surrounds



May 29, 2016

- City Limits
- Parcels

1:9,028
 0 0.075 0.15 0.3 mi
 0 0.1 0.2 0.4 km
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

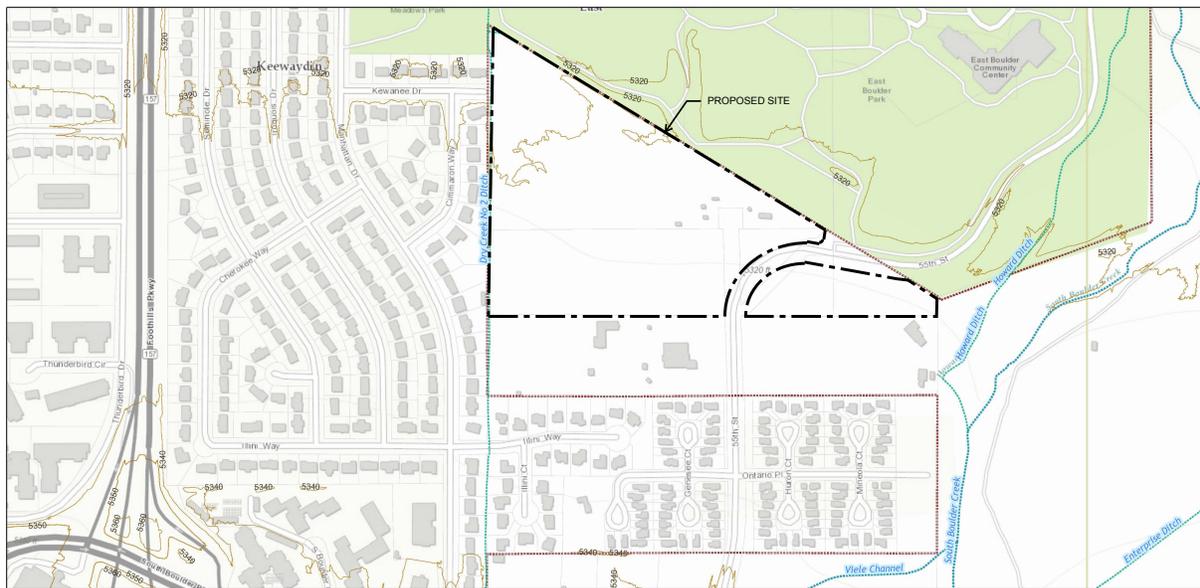
The construction of residences here, fills the void with housing near the East Boulder Recreation Center. Boulder Creek Commons will provide infill low density housing at one of the last opportunity sites under the Boulder Valley Comprehensive Plan. This area has always been planned for housing and not open space. Water and sewer utility lines have been stubbed to the property lines (water/sewer at Kewanee Drive, sanitary sewer from EBRC, and water within 55th Street).

Maximizing the density of population around this type of facility makes sense in terms of increasing the use of the City's investment. Placing as many people as possible directly adjacent to this civic investment means that access to the facility is increased and close.

The site was historically a working farm in an area with other large farms. Over time, residential development encircled the Hogan Pancost parcel. The site is bisected by 55th Street. The Western Parcel is more buildable while the Eastern Parcel has been identified as environmentally sensitive and is not intended for development.

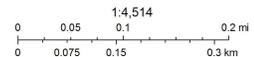
- **Southern Border** – the site is bordered on the south by another enclaved Area II parcel owned by the C.D. Bodam Family. To the south of the Bodam property is the Greenbelt Meadows Subdivision. Residential sites in this subdivision extend to within 250' of South Boulder Creek on the east of its eastern boundary, and to within 100' of the creek on its southern boundary.

Neighborhood Drainage



May 30, 2016

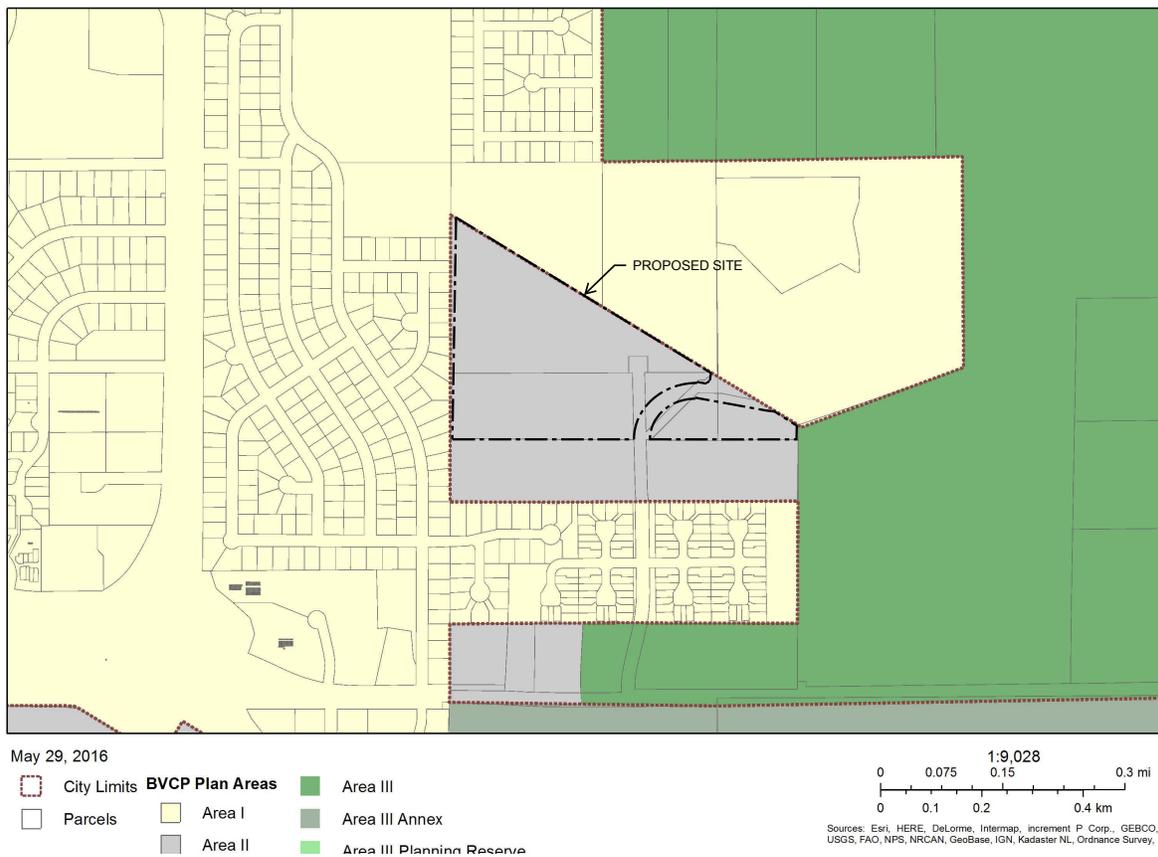
- Creeks and Ditches**
- 100ft interval
 - 500ft interval
 - Creek
 - Creek Int
 - Ditch
 - 20ft interval
 - 50ft interval
 - Parcels
 - City Limits
 - FEMA Map Revisions
 - FEMA FIRM Panels



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCo, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

- **Western Border** – the western border of the property is immediately contiguous with Dry Creek Ditch No.2 and beyond that, the Keewandine Meadows Subdivision. Residential structures in this subdivision are within 15’ of the ditch centerline at the eastern extent of Keewanee Drive, and vary between 40-90’ along Cimmarron Way.
- **Northeastern Border** – this border is contiguous along its entire length with East Boulder Park. The Super-Phosticle Lateral runs along the eastern side of the Eastern Parcel, crosses under 55th Street, and then runs diagonally across the Western Parcel of the subject site.
- **Eastern Border** – there is a narrow portion of the eastern boundary (75’) that shares a property line with City of Boulder Open Space. This area runs continuously to the east and includes South Boulder Creek and its immediate drainage area.

Comp Plan Areas



Annexation

The Hogan-Pancost property is an enclave, encircled by City of Boulder (shown below in cream-color) and Boulder Open Space (green color). It has always been planned for low density residential uses. During the Boulder Valley Comprehensive Plan Five Year updates, this designation for residential uses has been ratified time and time again. This site and the Bodam property to the south is part of the same enclave.

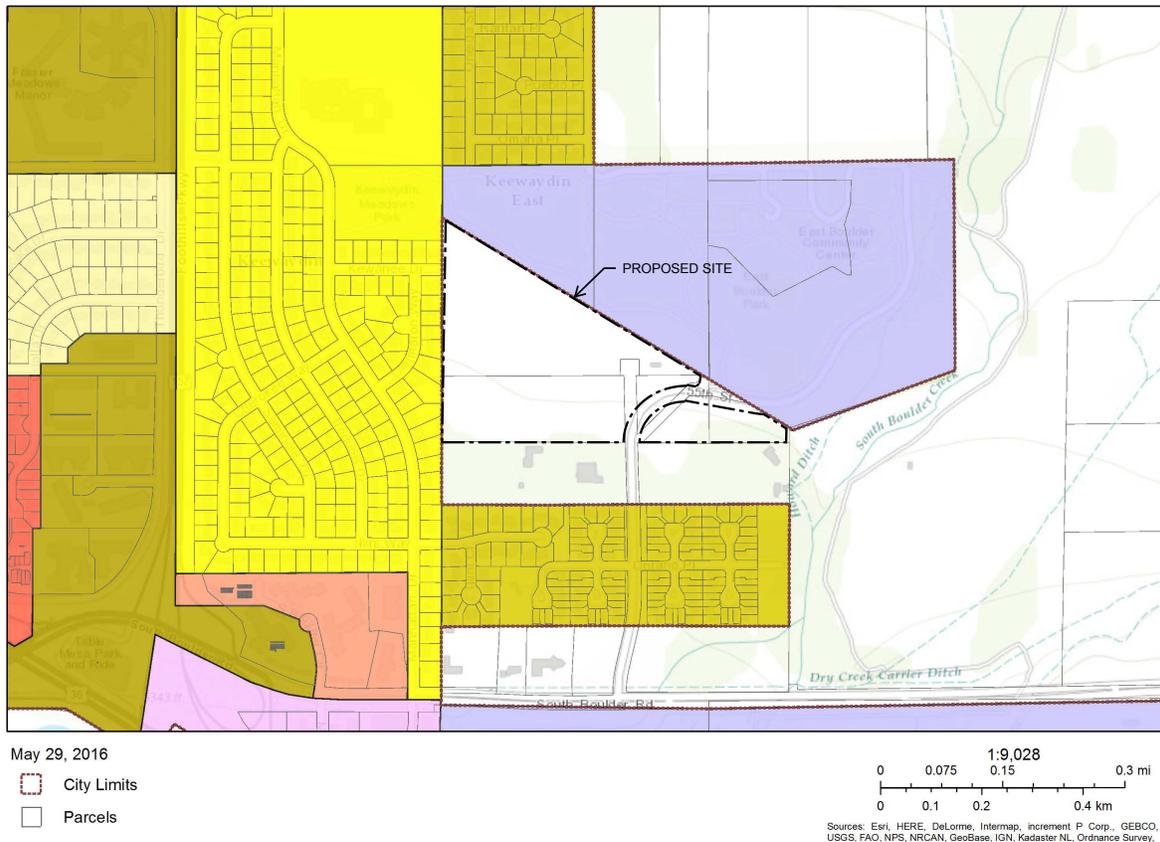
Land Use & Zoning

The existing land use adjacent to the parcel, other than for the EBRC itself, is low density residential of ±6 dwelling units per acre. West of the site, properties are zoned RL-1 – useable for single-family detached residences only. North and south of the property – all, parcels adjacent to open space – are zoned RL-2. The RL-2 designation allows for both single-family attached and detached units. RL-2 more easily allows the open space associated with the parcel to accumulated into significant areas. The RL-1 generally lends itself to providing open space associated only with private plots adjacent to each detached house. RL-2 allows for major pockets of these parcels to be dedicated to open space, and more flexibility in the layout of structures and streets.

The proposed initial zoning of the Boulder Creek Commons is RL-2, which in keeping with the parcels north and south, allows for preservation of the most critical portions of the site as open space, and allows for a better use of the developed land for a mixture of housing types available at a low, six dwelling units per acre, level of intensity. The eastern portion of H-P is an environmentally sensitive area and will be protected and potentially improved (details be developed in association with city staff) as an enhanced wetland as a part of the development process.

There is no doubt that providing more attached residences is a more sustainable practice altogether, and is more appropriate to the community. And in terms of market rate units, it will allow for a more stable price structure over time (per the BCC Housing Study), if more attached units are provided on site.

Adjacent Zoning



The Need for Housing

The appropriateness of housing in this location – while quite apparent from a general land use perspective – is also appropriate from the perspective of the need by the city overall.

Annexation requires that between 40-60% of the new development in an annexation be permanently affordable to low/moderate and middle-income households, usually split between the two income groups. However the greatest opportunity for providing housing for middle income families is at Boulder Creek Commons.

In discussion with the City of Boulder’s Housing Division staff, the target market for the residences proposed is 50% Permanently Affordable units, and 50% Middle Income units. The specific range of all units proposed in the documents was determined by Housing Division.

THE CURRENT SITE PLAN PROPOSAL

CHANGES FROM 2013 TO 2016 PLAN: Uses On Site

The previous 2013 proposal showed a congregate care senior housing facility on the eastern portion of the site fronting onto 55th Street. The majority of the remainder of the site was shown as single family detached residences, with three duplexes.

The new proposal shows the removal of the congregate care, and an emphasis on attached residences, both permanently affordable and market rate units targeting middle income buyers. The mix of unit sizes and AMI targets were provided to the applicant by the City of Boulder Housing Division.

2016 Residential Unit Breakdown

TOTAL UNITS	115
Market Rate Units	57 49.57%
Permanently Affordable Units	58 50.43%

		units	each	size	MR x 80%
Market Rate Units		57		ex. Garage	(see PA units below)
MR attached (total, split per below)	65%	37			
35% of MR units to be DOWNSIZED	35%	20			
1 Bedroom Patio Homes (presumably attached)			3	900	720
2 Bedroom Patio Homes (presumably attached)			17	1150	920
remaining MR full size attached (FAMILY FRIENDLY)		17			
3 Bedroom			8	1600	1280
4 Bedroom			9	2000	1600
MR detached FAMILY FRIENDLY 4 Bedroom	35%	20		2000	1600

		units	each	size	
Permanently Affordable Units		58		ex. Garage	
PA attached Low/Moderate Income (HUD low income)	40%	23			
PA attached Middle Income (HUD +25% level)	60%	35			
50% of PA attached (FAMILY FRIENDLY 3 & 4 Bdrm)	50%	29			
3 Bed 2.5 Bath Townhomes (duplex to 4-plex)		15		1301	80% of MR above
40% Low/ Moderate		40%	6		HUD low income
60% Middle		60%	9		HUD +25%
4 Bed 2.5 Bath Townhomes (duplex to 4-plex)		14		1601	80% of MR above
40% Low/ Moderate		40%	5		HUD low income
60% Middle		60%	9		HUD +25%
50% of PA units attached DOWNSIZED	50%	29			
1 Bed 1 Bath Patio Homes (duplex to 4-plex)		5		701	80% of MR above
40% Low/ Moderate		40%	2		HUD low income
60% Middle		60%	3		HUD +25%
2 Bed 1.75 Bath Patio Homes (duplex to 4-plex)		24		1001	80% of MR above
40% Low/ Moderate		40%	10		HUD low income
60% Middle		60%	14		HUD +25%

CHANGES FROM 2013 TO 2016 PLAN: Access & Connections

The principle site access is on the east from 55th Street, which extends north to Baseline and to the south to South Boulder Road. As stated previously, there is also a constructed connection to Kewanee Drive meeting the western property boundary. Kewanee is an existing residential street that connects directly to Manhattan Drive a block to the

west, which also connects to Baseline and South Boulder Road. Both Manhattan and 55th have signaled intersections at Baseline and South Boulder Road.

The biggest difference between 55th and Manhattan is that 55th winds around the East Boulder Rec Center, and Manhattan provides a more direct link to services, other than the Rec Center itself. However Manhattan has a larger existing residential population being served, while 55th Street serves a citywide service population accessing the Rec Center.

The 2013 Site Plan showed a vehicular connection to Kewanee from the site, however neighbors opposed this roadway. The applicant has always presumed that at the very least, a Fire Access Road would be needed to connect thru the western boundary to Kewanee, and possibly a bike path. Based on that earlier preference of the neighbors, we are not currently showing a greater usage than that which is noted above.

However since that earlier discussion, some members of the Greenbelt Meadows Neighborhood have expressed that they do not share that view, because it puts more emphasis on the 55th Street access for all of the BCC traffic. The applicant wishes to be very clear that whichever way the city prefers to go (connecting or not connecting to Kewanee), is acceptable the applicant. The Site Plan today does not show the connection because of the earlier stated preference. But guidance from the city on the matter is requested.

2013 Diagrammatic Site Plan



The 2013 submittal shown above, had a single means of access into the property from 55th Street, and a second access point at Kewanee. Because of the scale of the previously proposed congregate care structure, a second access point from 55th was not practical and was not provided. In that circumstance, the Kewanee access was more needed.

CHANGES FROM 2013 TO 2016 PLAN: Site Internal Circulation

Because the congregate care structure is no longer included, the site now has access potential from two locations along 55th Street. And if the city so desires, no public vehicular connection need be made to the west to Keewaydin Meadows, as it is currently shown. However if the city prefers, this connection can be added easily.

2016 Site Plan



The current internal site circulation shows a double loop pattern of streets folding back onto 55th Street. The outer loop fronts onto open space on the west, and onto the park on the northeast. In both of these locations, we have developed a single loaded street frontage, so that no backyards and their associated fences are fronting onto publicly accessible open space areas. On the south side of the loop, since the southern boundary of the site will potentially be backed up to another subdivision, the street is double loaded with residences. Likewise the inner loop road is also double-loaded with residences.

Also significantly different in this version of the plan is the inclusion of alleys that service every residence from the rear of each individual residential site. This has a substantial impact on the nature of the public street frontages, in that there are no garages – and no garage doors or curb cuts along the public street. This makes a big difference in the character and walkability of the neighborhood.

2016 PLAN: Site Organization & Scale

Bisecting the central portion of the site and generally in the east/west direction, is a central green space with a woonerf-type street character. The organization of the alleys serving the residences that front onto the woonerf makes it possible for the cars to access their garages without having to drive onto the woonerf at all. The woonerf forms the internal core and heart of the neighborhood, where children can feel safe to claim the street as their domain, since no cars need to enter this zone on a daily basis. However the street remains the front door of the residences that front onto the woonerf itself.

The entire perimeter of the site is fronted with two-story townhouse type units, in either duplex, triplex or four-plex configurations. All of the residences that front onto the woonerf are single story flats. The only exception to this is where the north/south pedestrian connection to East Boulder Park is flanked by single story flats when it meets the park frontage. This creates a visual low point along the site's northeastern perimeter, thereby marking the connection to the center of the neighborhood (thru the scale of the structures) along the park's southern boundary.

2016 PLAN: Parking Analysis

The required parking for the project is as follows...

Residential Unit Breakdown

TOTAL UNITS	115
Market Rate Units	57 49.57%
Permanently Affordable Units	58 50.43%

OFFSTREET PARKING REQUIRED		units	each	spaces/du	total
Market Rate Units		57		required	required
MR attached (total, split per below)	65%	37			
35% of MR units to be DOWNSIZED	35%	20			
1 Bedroom Patio Homes (presumably attached)			3	1	3
2 Bedroom Patio Homes (presumably attached)			17	1.5	26
remaining MR full size attached (FAMILY FRIENDLY)		17			
3 Bedroom			8	2	16
4 Bedroom			9	3	27
MR detached FAMILY FRIENDLY 4 Bedroom	35%	20		1	20
					92

OFFSTREET PARKING REQUIRED		units	each	spaces/du	total
Permanently Affordable Units		57		required	required
PA attached Low/Moderate Income (HUD low income)	40%	23			
PA attached Middle Income (HUD +25% level)	60%	35			
50% of PA attached (FAMILY FRIENDLY 3 & 4 Bdrm)	50%	29			
3 Bed 2.5 Bath Townhomes (duplex to 4-plex)		15		2	30
40% Low/ Moderate	40%		6		
60% Middle	60%		9		
4 Bed 2.5 Bath Townhomes (duplex to 4-plex)		14		3	42
40% Low/ Moderate	40%		5		
60% Middle	60%		9		
50% of PA units attached DOWNSIZED	50%	29			
1 Bed 1 Bath Patio Homes (duplex to 4-plex)		5		1	5
40% Low/ Moderate	40%		2		
60% Middle	60%		3		
2 Bed 1.75 Bath Patio Homes (duplex to 4-plex)		24		1.5	36
40% Low/ Moderate	40%		9		
60% Middle	60%		14		
					113

TOTAL AMOUNT OF OFFSTREET PARKING REQUIRED ON SITE

205

Total amount of cars provided in the Project Site area as follows:

- Off-street spaces in garages or carports 115 spaces, or 1 car per dwelling unit
- On-street spaces in Public ROW 96 spaces (none are shown on 55th Street)
- Additional on-street spaces along Woonerf 14 spaces

Total spaces proposed to be provided on site 225 spaces.

All bicycle parking will be provided within the dwelling units' private secure storage areas, either in private garages or associated with private carport storage areas.

Proposed Parking Reduction

Since only off-street spaces can be counted towards the City's parking requirements, the applicant is proposing that a parking shortfall of 90 cars (per the above calculations) be accepted. Therefore a parking reduction of 44% is hereby proposed for the project.

As general support for this request, the applicant provides the following simple logic...

- The City requires only one parking space for single family detached residences, no matter the size of the residence or the amounts of bedrooms provided.
- If this same residence is provided as an attached residence, the amount of parking required is no longer based on a simple calculation of a single car per dwelling unit. In other words, the simple act of attaching a dwelling unit to another dwelling unit, changes the methodology of calculation. Suddenly, the issue then is the number of bedrooms provided.
- Therefore any benefit accrued from a more limited site footprint for attaching units, or even from providing a smaller unit – possibly even with fewer bedrooms, is now lost. For example:
 - A 4-bedroom detached 2000 square foot residence requires 1 off-site parking space
 - A 2-bedroom attached 1000 square foot residence requires 1.5 (or rounding up, 2) parking spaces.
- So if all residences were detached, and even significantly larger than the range of units proposed, only 115 parking spaces would be provided.
- To be sure, if it were Planning Board & City Council's pleasure, we could make all of the residences into single family detached housing – and this would make the project compliant in terms of parking. Yet to do so would undermine other civic goals. There would however, be no difference in the need or the provision of parking on site, so such a change would have no benefit to anyone.
- The project still supports significant on-street parking to handle any additional cars, even in excess of those required by the more expanded calculation criteria.
- Given the nature and mix of the units, it is not expected that there will be any student-only residents on site. Therefore there is no expectation that each person residing here will have their own auto.
- And the site is sufficiently isolated from other neighborhoods that any overflow of parking from any individual residence will not impact adjacent neighborhoods.

A further analysis and a Transportation Demand Management Plan will be provided as a part of the later Site Plan Review submittal.

2016 PLAN: Site Drainage

The Boulder Creek Commons development will preserve the existing storm water drainage flow patterns. Storm water flowing on to the Boulder Creek Commons land will be conveyed through the development to the existing storm water discharge locations. The East Parcel will remain undeveloped and the drainage patterns will not be altered. The West Parcel discharges storm run-off and flood water onto City property at two existing discharge locations: the northwest corner and the southeast corner. Storm water runoff from the development will be routed to these existing discharge locations.

The storm water mitigation plan for the Boulder Creek Commons development will include using low impact design techniques throughout the subdivision to reduce storm water run-off from impervious surfaces and to provide storm water quality enhancements. Prior to releasing developed storm water from the property, the storm water will be routed through detention facilities to reduce the storm water runoff rates to match the current storm water runoff rates from the property.

Conveying the localized drainage within and through the proposed development will dictate the amount of fill required for the Boulder Creek Commons development. The street grades will be set at or near pre-development grades and will generally follow the natural topography. To achieve the minimum lot slopes for positive drainage away from the homes, the lots will be elevated about 2-feet above pre-development grades. Elevating the homes above pre-development grades is a common practice in subdivision design. When the Keewaydin Meadows Subdivision was constructed in the 1960's, the roads were set near pre-development grades and the lots elevated above pre-development. The Boulder Creek Commons lots will be elevated in a similar manner as the existing homes in the adjacent Keewaydin Meadows Subdivision.

The current site plan reduces the development footprint from the 2013 site plan by 19%. As a result, the amount of soil import on to the property has also been reduced. Elevating the lots to provide positive drainage away will require soil import on to the site in the range of 24,500-cy to 28,500-cy. The soil import requirements will become more refined as the preliminary engineering design is completed for Site Review.

2016 PLAN: Sustainability

As the Boulder Creek Commons project team works to make the project homes net-zero, the first question is, “how is net-zero defined and measured?” A common definition of net-zero is that, on an annual basis, the home produces as much energy as it consumes. As for how it’s measured, the HERS rating system, already required by the City’s Green Points program, provides a widely accepted framework for assessing energy use.

The HERS rating is a powerful tool for measuring energy efficiency, and for guiding building officials, building professionals and homeowners in evaluating energy efficiency. It does, however, have its limitations. These limitations are often unimportant, for instance, when using the HERS rating system to compare homes of that are marginally better than the baseline (e.g. a HERS 70-80). When using the tool to evaluate whether a project is net-zero, however, these limitations become important. Because the rating system uses national averages for appliance and plug load energy calculations, it doesn’t assume any modifications for a net-zero home, therefore overestimating these uses. One example of this is that lighting is entered as a fraction of “high efficacy” lighting, but doesn’t differentiate between CFLs and much more efficient LEDs.

There is a saying in the green building community, “There are no net-zero homes, only net-zero occupants.” According to the Western North Carolina Green Building Council, “Research has shown that up to 30% of home energy usage can be reduced by user behavior”, indicating there is significant room for occupants to impact whether a house reaches net-zero, or not.

The project team defines homes having a HERS score of 10 or below as being a functional equivalent to net-zero. This results in a home where the occupants will easily be able to live net-zero with reasonable conservation habits. The extra costs to build to a HERS 0 would waste unnecessary resources (namely, additional solar photovoltaic panels) and take away from the budget for other amenities in the homes and neighborhood.

Considering HERS 10 as net-zero has important real world consequences, as well. There are three constraints placed on Boulder Creek Commons to gain annexation approval that have competing, almost contradictory effects that make compliance challenging. These constraints include a requirement of net-zero, 50% affordable units, and the remaining 50% as middle-income market rate units.

Because of the constraints on sale price of affordable housing, any costs associated with building net-zero must be borne by the market rate units. This means, in effect, that the cost for net-zero on the market rate homes is double the normal cost. While the cost and benefits of net-zero can be marketed as a benefit to the homeowner, doubling the cost certainly makes the notion undesirable, and quickly pushes the units beyond what most residents would consider “middle income”

Solar panels have approximately a 7-year payback when used to offset electricity that would otherwise be purchased from Xcel Energy at the current rate of approximately \$0.12/kWh. When financed over a 30 year mortgage it is essentially cheaper than \$0.12/kWh, and is a great investment. When the panels produce more energy than that home uses, the economics change drastically, however. Because excess power is purchased by Xcel at wholesale rates of approximately \$0.04, the payback triples, and solar is no longer a savings.

On average, going from HERS 10 to HERS 0 will add approximately \$7,000 to each market rate home. Half of that won’t ever pay back – it pays for the solar panels on an affordable unit. The other half will only pay back if the home uses more energy than the solar panels produce. Homeowners that don’t use that much energy are therefore forced into a bad investment at the same time they’re purchasing what is likely their biggest asset. Further the \$7,000 investment only reduces the utility bills for both the affordable and market rate units by approximately \$8.00/month.

NEIGHBORHOOD CONCERNS RAISED IN PREVIOUS HEARINGS

The key questions to be answered in relation to concerns raised are:

In the context of the proposal to build new housing on the Hogan-Pancost site...

- **To what degree and to what extent does new construction on the site worsen the existing conditions for neighbors?**
- **To what degree are the conditions that neighbors are ascribing to development of the property, actually pre-existing for those neighbors and not related to anything that occurs with the development of the Hogan-Pancost site?**
- **And if there are significantly increased impacts, to what degree can these impacts be mitigated?**

These questions in no way presume that the concerns of neighbors are not warranted. The questions are only significant in connection to whether or not the development of this site exacerbates and worsens conditions for the neighbors unreasonably.

It is always the case that every new home, in some way affects anything that may have come before it: views may be lost; vehicular traffic may be increased on existing streets, ...things will change.

But what is reasonable and acceptable? Many people have spoken in opposition to this project on the basis that the impacts from it go beyond what is acceptable. The applicant intends to show sufficient information to allow Planning Board and City Council to effectively make that determination. We believe that the data does not support denial of the proposal on the basis such impacts.

This does not intend to infer that there won't be impacts from adding some 115 new homes to the neighborhood. But these impacts are in keeping with the goals and policies of the city and are within the range of that which is keeping with the goals and policies of the Boulder Valley Comprehensive Plan.

In previous hearings before Planning Board regarding this site, significant neighborhood concern that have been raised generally under the following categories...

- I. Flooding in Major Storm Events – including impacts from the 2013 Flood; updates to the 100 & 500 year over ground flooding; existing grades and their relationship to flooding; and proposed onsite drainage with development.
- II. Groundwater – including existing high water table on the Project Site; groundwater impacts on surrounding neighborhoods; the impact of development on the groundwater of the surroundings; and groundwater systems in the area.
- III. Wetland – including an update to the Wetland Mapping for the current conditions
- IV. Endanger Species Habitat – including trapping studies and mapping of all species identified by all agencies that have jurisdictional authorities using their prescribed methodologies in each case.
- V. Traffic Impacts – including updated data as appropriate for the revisions to the Site Plan proposal; and providing Trip Generation Analysis and Trip Distribution Analysis as required for Concept Plan Review submittal.
- VI. Construction Impacts – including extent of regrading and fill, and impacts to neighbors during construction.

It is the applicant's intention to address each of these separately. Responses can be found in the Attachments.

SUMMARY

This is a good project.

It will make a fine neighborhood for 115 new families who cannot today afford to live in Boulder. It will be a good neighbor in an area of other single-family residential neighborhoods.

No other neighborhood has provided the kind of residential scale and resident mix of incomes as Boulder Creek Commons is attempting to establish. No other neighborhood has ever tried to provide a level of sustainability and energy efficiency as Boulder Creek Commons is attempting.

- Over 50% of the units are 100% permanently affordable to 40 & 60% Area Median Income buyers.
- Almost 50% of the units are targeting moderate income buyers.
- All of the units are proposed to meet an energy efficiency standard this is functionally net zero.

It is also without doubt, the most highly scrutinized neighborhood ever proposed – and hopeful someday, soon – built, in this community.

There has been opposition to the development, as everyone knows. But a clear-eyed and open-minded look at the data does not support the contention that this site is unsuitable for the development proposed.

The applicant simply asks that those who review this proposal, simply do so with a fresh and open view to what is presented.

This is a great opportunity for the City of Boulder to create a neighborhood that embodies the values that we as a community, espouse.

We hope that you will agree.

LIST OF ATTACHMENTS to WRITTEN STATEMENT

6_Written Statement Appendix – Response to Neighborhood Concerns

6a_Ground Water Evaluation-Telesto

6b_Response to Neighbor Concerns-Telesto 110913

6c_McCurry Final-Telesto Rebuttal 130418

6d_Telesto_GW_WhitePaper 130926

6e_Ground Water Hydrology

6f_Keewaydin/Pawnee Underdrains 160617

6g_4-mile Underdrain

6h_Spiranthes-Gaura Habitat Assessment & Survey 1609 revised

6i_Wetland Delineation Report

6j_Species of Concern 1608

6k_PMJM Trapping Survey 1609

6l_Vegetation & Wildlife 1608

6x_McCurry_GW_presentation 160428