Focus Team: Natural & Built Sustainability #6

Date and Location: Tuesday, March 29, 2022 – Community Center West Room

Estimated Attendance: 18

Guiding Questions: N/A

Meeting Goals: information sharing, project update, additional community discussion around how the Sustainability Team can test scenarios and measure success.

Key Technical Information Shared:

Katie Stege, technical consultant, presented an overview on the work and guiding principles of all other focus teams throughout this public input process. The principles of other focus teams frequently overlap with those established by the Sustainability Team. Please see attached slides.

Katie also presented on consultant team & Steering Committee updates and next steps.

- Using information gathered from focus team meetings and other community outreach, consultants are establishing a preliminary framework for the "program" at Brown Ranch. Program = what are we putting on the site and what is the principal character of the site.
- Next step: testing scenarios on-site to make sure everything fits and works with real-life conditions!
- The steering committee recently had a conversation about housing demand and density. Here are the major outcomes of that conversation:
    - Go as compact as possible to meet overall demand target.
    - The more densely we build, all other metrics improve (affordability, walkability, percentage of open space).
    - For ever single family detached units we build, we could build 7 multi-family units or 4 single family attached units. A multi-family unit uses less water, has less energy footprint.

Public Input:

The Sustainability Team co-chairs and technical consultants led a conversation based on the following questions: *How do we define sustainability success? Which of these metrics resonate with you all? These are the lenses we will be judging us by when we build Brown Ranch.*

Metrics Comments:

- Regarding metrics, what are we comparing Brown Ranch to? Downtown Steamboat?
    - Response: We're seeking metrics to compare design scenarios to each other to understand and quantify the differences and relative strengths of scenarios. If we're going to try to set different standards to Brown Ranch, we need to compare it to an

accepted baseline. We can accept code as baseline, a sustainability rating system, industry standard, etc.

- Tie metrics to Climate Action Plan and Water Conservation Master Plan.
- Q: What is ecological performance?
  A: If we're dedicating an area for open space, what is the habitat value? Can it be used for pollinator species, can it be used for carbon capture, so it includes ecological benefits?

Open Space

- Add metric around connectivity or access to open space.
- Add view corridor metric.
  - Response: we can do that! We already do a viewshed analysis for urban projects, so we can do that for Brown Ranch too.

Water

- Change water use per household to water use per capita for interior use.
- Total water footprint of phase 1 – maximum water available before 3rd redundant water source.
- Outside water allocation: potable vs non-potable or none at all? Anchor to per acre metric.
- Code-allowed potable water – come in under code!
- Recapture, recycling of water – metric around that?

Energy

- HERS: Home Energy Rating System is a way to compare what we're building through an energy model to a typical code house. On a scale of 0-100. Should we set a ceiling for Brown Ranch? 30-40 (local code-built house has HERS rating of 55). Improve on that by improving energy efficiency through windows, insulation appliances, etc. Goal: get unit to "net zero" energy use.
- Home Energy Rating is a well understood industry rating. 30-40 is a great aspirational goal and good metric to quantify the quality of the dwellings we will build.
- HERS is already included in the code. It's a universal system, so it's understandable to the building official, builders, etc.
- Energy efficiency is most important.
- Can we include affordability as an energy metric?
- Lifecycle viewpoint: a typical larger house would have 90% savings.
- Add "net annual zero" = on annualized basis, a building or unit (or whole project) could be net zero. Which means a home could generate as much energy on site as it uses over a year.
- Add performance rating for commercial buildings?
- US Department of Energy – Net Zero Ready Homes
- If the buildings are designed for solar on the roof, then grid-tie the neighborhood if possible.
- Consider removing the on-site energy generation metric so we aren't tied to generating onsite if offsite is a better option.

Resiliency & Health – general comment: expand on this one to include metrics beyond walkability

- Add metric around improving air quality or reducing indoor pollutants.
- Materials re wildfire resiliency.
- Temperature regulation & heat pumps.
- Think ahead to 2050 climate conditions.
- Maybe something like a walkability score that you find on Zillow
    - hybrid this to walkability to transit, food access, etc.
- Access to food – Health equity data is showing Routt County has some of highest food prices in the state.
- Percentage of physical living space? – home square footage.
- Don't forget mental health, which is better when people can get together at community center.
- Include an affordability metric?
- Access to healthcare and emergency services.
- Access to broadband/internet.

General Comments:

- There are other places in the state and elsewhere that demonstrate we can build sustainably, affordably, and durably. Many sustainability concepts are not always understood. Brown Ranch is an opportunity to showcase 21st century planning concepts. What I've observed and the interaction between focus teams is surprisingly robust conversation. Good things are being discussed here.
- Design with opportunities for shade.
- There appears to be no "nod" even to historical agricultural use, as Patrick Stanko mentioned months ago. Also, keep in mind that this is a giant drainage and will need plenty of natural land to filter the runoff.
    - YVHA Response: The Slate Creek drainage will be large (up to 400 ft buffer). Regarding historical agricultural use: we are looking for community partnerships on how to have productive, community-based agriculture on-site. We have existing agricultural structures on-site. Exploring preservation and re-use of those structures. Maintaining character is embedded in our guiding principles!
- Setback from 40 is important for a 'ranch' feel, and a few rustic structures for the commercial uses would help.
- IF you do dry farming, you can collect water from roofs (if they're designed for that use).
- Please don't put an over-built entry gate. Keep it low-key.
- Storm water runoff is usually under-estimated...look at sleeping giant school.... too many impervious surfaces.
- Expand the Slate creek set back of natural ground. Keep the dozers away from that soil. Allow salamanders and toads to survive.
- If anyone has ever pumped water for a bath or washing clothes, and carried the water in buckets for daily use, they would value water more. Most folks take potable water for granted.

- Indoor water conservation is low hanging fruit and can be achieved using efficient fixtures. The real opportunities to conserve water during unprecedented drought come in outdoor water use.
- The multi-story buildings should have elevators for wheel-chair access, and bicycles.
- Minimize the street lights at night...keep it safe, but not obliterating the night sky.

YVHA FOLLOW-UP FOR WEEKLY REPORT

Resources needed from/for technical consultants for next meeting

N/A

Necessary Cross-Collaboration w/other Focus Teams:

N/A