Second Phase of Development Design for Biscuit Run Park

Inclusive Access to Albemarle County's Biscuit Run Park and Combatting Green

Gentrification in the Southwood Community

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<u>Introduction</u>

Public parks offer a myriad of environmental advantages, particularly in urban areas. Improved air quality, heat relief, increased public support for environmental issues, and land protection from future development can all alleviate the effects of climate change (EPA, 2024). However, creating a park involves new construction, such as the addition of roads and parking lots in previously undisturbed natural areas. As a civil engineer, I must properly mitigate the possible erosion, litter, and stormwater management challenges that may arise due to my designs.

Moreover, numerous social and economic benefits can be gained from developing new parks. A common gathering space can strengthen bonds with loved ones, heighten one's sense of belonging in their community, and improve physical and mental health through recreational activity and connection with nature (Lee et al., 2015). Parks can also bring increased revenue, visitors, and jobs. The desire to live near a beautiful park, with all its wide open space and health advantages, attracts new residents to the area and can cause property values and taxes to rise (Trust for Public Land, n.d.). However, inequity in both access to and quality of green space is becoming more and more apparent. Surging rents and taxes disproportionately affect low-income residents who may be forced to leave their homes and communities behind. Because they can no longer afford to stay, or because they feel out of place, these existing residents fail to make use of the new parks (Jelks et al., 2021).

Public parks in urban areas can provide a unique integration of the social, economic, and environmental pillars of sustainability, but oftentimes, the environment is prioritized while social and economic impacts to vulnerable groups are less considered (Sauri & Domene, 2009). A recent study found that greening practitioners recognize gentrification as an issue related to or even driven by their work, but spend little time working on the topic, considering it outside of

their scope (Nesbitt et al., 2023). This thesis will seek to understand how new green spaces contribute to the displacement of low-income residents and the gentrification of neighborhoods. In addition, this thesis will analyze the multidisciplinary safeguards that must be prioritized in the early stages and throughout the development process, examining Biscuit Run Park near Charlottesville, Virginia as a case study.

Second Phase of Development Design for Biscuit Run Park

As the population of Albemarle County has increased, particularly surrounding the City of Charlottesville, the southern region has been left with a growing disparity in access to public green space. Because of this, the construction of a brand new park – Biscuit Run Park – has been set in motion by local officials to create recreational facilities and improve quality of life while also preserving natural resources in a developing area. The new park will include walking and cycling trails, athletic fields, pavilions, play areas, and scenic views of Carter Mountain. Spanning 1,190 acres, the park will be the county's largest, situated between Route 20 (Scottsville Road) and Old Lynchburg Road. Phase 1 of construction for this park concluded in October 2024, which included a new paved entrance to the park and an entrance road to a trailhead parking lot. Phase 2 construction is currently proposed to include extensions of the entrance roads, larger parking lots, terraced sports fields, and a trail system (Albemarle County Parks & Recreation, 2023).

The goal of this project is to assess the progress of Phase 1, evaluate site conditions, and design the park as necessary to better fit the theme of "living with nature", while still meeting the needs of the local community for more recreational space. Our team shall focus on a portion of the park featuring paved trails, two athletic fields, and a stormwater detention basin. We intend to

deliver CAD drawings and associated phasing plans depicting the placement of facilities, grading, stormwater management, safety, accessibility compliance, environmental protection, and general implementation for Phase 2 of construction. Along with a trail system plan, our research will contribute to the historical interpretation of an old stagecoach road from the 18th century located on site. In the long term, a primary goal of this project is connectivity. Trails between the park and the surrounding neighborhoods will allow residents to visit Biscuit Run Park without having to use a car. A larger connection to Fifth Street Station and the Rivanna Trail Network will provide walking and cycling access to the grocery store and places of employment (Krebs, 2023).

In pursuit of these deliverables, we have, at present, conducted preliminary research on the park's master plan and sustainable park design. Additionally, relevant stakeholders whose perspectives and insight will be considered during our work will include the Virginia Department of Environmental Quality (VDEQ), the Virginia Department of Transportation (VDOT), Albemarle County Parks & Recreation, and the residents of Charlottesville and Albemarle County. In particular, the needs and desires of Avon Street, Mill Creek Village, Lake Reynovia, Southwood, and other communities close to the park will be prioritized. Following the physical and social exploration of the project, a preliminary design will be put forth. This initial proposal will subsequently be examined for all manner of risks that could arise with its implementation. Risks will be addressed through a change in either our proposal's design or phasing plan. Ultimately, our final designs will be presented to UVA Engineering faculty, AMT Engineering associates, and representatives of Albemarle County in the spring of 2025.

<u>Inclusive Access to Albemarle County's Biscuit Run Park and Combatting Green Gentrification in the Southwood Community</u>

The development of public parks has numerous positive impacts on local quality of life, public health, and economic well-being, but has historically excluded the financially vulnerable (EPA, 2024). Investment in green spaces tends to result in rising property values and taxes, displacing residents who can no longer afford to rent or own their homes and enabling wealthier residents to move in, a process known as green gentrification (Kim et al., 2024). Larger regional park projects, such as Biscuit Run Park near Charlottesville, Virginia, are also more susceptible to placing the interests and profits of private developers over the well-being of the residents (Sauri & Domene, 2009). For larger parks, the "Announcement Effect" can result in prices rising even before construction begins due to news coverage and buzz around the project (Immergluck & Balan, 2017).

Green gentrification can markedly harm the health of low-income residents, even though health equity is often a goal of new green spaces (Jelks et al., 2021). Public park development projects in gentrifying neighborhoods can erase the traditional identity of the area, contributing to feelings of exclusion, disempowerment, and loneliness for low-income and disabled residents (Feng & Burt, 2022). These residents feel as though they no longer belong, and because of displacement, they lose vital social networks (Jelks et al., 2021). While new parks may have been intended to improve the mental and physical health of neglected communities, because these communities are less likely to make use of the green space, the opposite effect is often observed (Feng & Burt, 2022). Ultimately, the risks of green gentrification cannot be separated from the need for protected affordable housing (Rigolon & Christensen, 2019).

The City of Charlottesville and Albemarle County are currently facing an affordable housing crisis, with the cost of housing rising significantly each year. Communities of color have been disproportionately harmed by increasing housing costs, with many low-income residents being displaced from their homes. Between 2000 and 2018, average rent costs in Charlottesville rose by 88 percent, while the median household incomes for Black residents increased by only 17 percent. Since 2000, almost one in four Black homeowners in Charlottesville have moved or lost their homes, losing access to their communities (Charlottesville Low Income Housing Coalition, 2020). Current laws and policies only serve to exacerbate the problem.

The crisis reached a tipping point in the Southwood Community, which borders Biscuit Run to the north. In 2007, Southwood was a 100-acre mobile home park with more than 1,500 residents but faced bankruptcy. The owner offered the residents a choice — sell to a developer and likely be displaced, or sell to Habitat for Humanity, a nonprofit organization committed to home security and policy reform for underserved communities. Southwood chose Habitat, and as a result, the neighborhood is currently undergoing a massive redevelopment process with the goal of non-displacement and permanent affordable housing (Habitat for Humanity, n.d.).

The strong partnership between Habitat and Southwood alongside the development of Biscuit Run Park serves as a model for how procedural and cultural solutions can be successfully applied to avoid green gentrification and its detrimental effects. In this thesis, Actor-Network Theory (ANT) will be used to analyze the current situation in Southwood, leveraging existing literature and the principles of care ethics to best design Biscuit Run Park for accessibility and inclusion. Public parks are an opportunity to build community wealth, and all residents should be welcome to enjoy the benefits equitably without risking displacement.

<u>Conclusion</u>

      The desire for green space and its many associated health benefits has resulted in the development of Biscuit Run Park in Albemarle County, just south of Charlottesville, Virginia (Albemarle County Parks & Recreation, 2023). This park will also serve to protect the natural resources in the area, which contributes to increased biodiversity and climate resilience (EPA, 2024). For the technical project, our group will design trails, athletic fields, and stormwater detention for Phase 2 of Biscuit Run Park to provide a space for recreation, nature appreciation, and social interaction. However, new green space leads to gentrification, increasing housing prices and displacing low-income residents (Kim et al., 2024). Excluded from the physical and mental benefits of green space and watching their neighborhood character erode, individuals can feel increasingly isolated and lonely (Jelks et al., 2021). Because of these risks, new green space must be paired with affordable housing to protect the current low-income residents (Rigolon & Christensen, 2019). Concurrently, public parks must be designed to welcome disadvantaged groups and provide equitable access (Feng & Burt, 2022). The aim of this thesis is to ensure that Biscuit Run Park can be utilized and appreciated by all residents, without inflicting financial or social harm to those living in the Southwood Community.

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