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Design Focused Engineering

Project Narrative For: SP201800023 River's Edge | SP Request for Preserved Slopes Disturbance

Parcel Description: Tax Map 32, Parcels 5-A and 5-A1

Initial Submittal: December 17, 2018

Revised: September 16, 2019

Revised: December 16, 2019

Current Revision Date: February 28, 2020

Pre-App Meeting Date: June 18, 2018

	Area
Steep Slopes - Preserved	39,100 sq. ft
To Be Disturbed	

Section 30.7.4(b)(2) of Chapter 18 of the Code of Albemarle County permits the Board of Supervisors to grant a special use permit for land disturbing activity within preserved slopes for "private facilities such as accessways, utility lines and appurtenances, and stormwater management facilities, not otherwise permitted by right under subsection (b)(1)(e), where the lot does not contain adequate land area outside of the preserved slopes to locate the private facilities." In accordance with Section 30.7.4(b)(2), we, on behalf of Rivers Edge Holdings LLC and Rivers Edge Associates LLC (collectively, the "applicant") request for the Board of Supervisors to grant approval of a special use permit for the disturbance of preserved slopes to allow for necessary access improvements to the existing driveway on the property and to allow for private facilities improvements for stormwater management. We request for this special use permit to be considered in conjunction with ZMA2018-00018, River's Edge North, a proposed planned residential development.

The ZMA application associated with this special use permit application petitions to rezone TMP 32-5A and TMP 32-5A1 from Rural Areas to a Planned Residential Development. The Comprehensive Plan designates this property as Neighborhood Density Residential and Privately-Owned Open Space. Redevelopment on the property will require the existing driveway to be widened and improved to ensure safe ingress and egress to the site for residents, guests, and emergency vehicles. The location of the proposed accessway takes into consideration the existing conditions of the site, specifically the existing location of the driveway, and other environmental conditions, such as stream buffers, which are discussed in further detail below.

We also request slopes disturbance for private stormwater facilities so that stormwater from precipitation events can be directed efficiently back into the Rivanna River. It may be necessary to disturb slopes for the installation of adequate drainage ways via pipes or ditches through the bank area. Disturbance of the bank for private stormwater facilities would necessitate the stabilization of the bank in accordance with applicable Albemarle County and Army Corps of Engineers regulations. The bank would be stabilized with the installation of rip rap or other acceptable means. This stabilization would be considered disturbance and so this request accounts for the disturbance anticipated to ultimately stabilize the bank.

This property is almost entirely surrounded by the Rivanna River and on this property, the banks of the River are entirely within preserved slopes and so, there is no clear path for any channelized flow to directly reenter into the River without the disturbance of preserved slopes. As aforementioned, this request covers the disturbance anticipated to be necessary to not only direct the runoff back into the river but also to stabilize the bank surrounding the constructed conveyance system. At present, the banks on the property within the preserved slopes do not have any stabilization measures and are susceptible to increased erosion when compared to a stabilized bank. The purpose and intent of the steep slopes overlay district is to, "protect downstream lands and waterways from the adverse effects of the unregulated disturbance of steep slopes, including the rapid or large-scale movement of soil and rock, or both, excessive stormwater runoff, the degradation of surface water, and to enhance and preserve the character and beauty of the steep slopes in the development areas of the county." The proposed stabilization measures would help to protect the character of the slopes and achieve the intent of the steep slopes overlay district by preserving the character of the slope as a defined portion of the channel of the Rivanna River.

We request 16,000 SF of preserved slopes disturbance to allow for the construction of an adequate accessway to the property for residents, visitors, service vehicles, and emergency vehicles and an additional 23,100 SF of disturbance for private facilities to allow for the construction of stormwater drainage measures and affiliated bank stabilization.

In your review of this request, please consider the following:

1. Protection of downstream lands and waterways

The disturbance of steep slopes for the accessway is purposefully designed as a no-fill, straight-cut process. The anticipated process will be an extraction of material, to be excavated and moved to an appropriate fill place on-site, using a rock hammer to cut away the slope. The disturbed material is expected to be mostly rock, which does not require mass earthwork and movement of dirt. The nature of this material is not prone to mudslides and not likely subject to uncontrolled movement or run-off, as there is expected to be minimal dirt within these disturbed areas when compared to mass graded areas. Due to the type of the material that is to be disturbed, it is not anticipated that downstream lands and waterways will be significantly impacted. The areas of disturbance will be limited to cutting and excavating the slopes, with no mass grading of the steep slopes planned, protecting the downstream areas below. Any land disturbance will comply with applicable Virginia DEQ and Albemarle County Water Protection Ordinance Regulations.

The disturbance for stormwater management would require stabilization of a portion of the bank where a pipe or channel was installed. The pipe or channel would efficiently direct stormwater runoff from the property back into the waterways and the affiliated stabilization of the bank would greatly reduce the impacts an eroded natural bank would have on downstream lands and waterways.

2. Rapid or large-scale movement of soil and rock

The proposed disturbance for the accessway will strictly be a localized process in certain areas of the site, to widen the existing road and ensure safe access to and from the site. The process aims to create a level pad at the top of the slopes and therefore we expect there will be about 1-5 feet of cut, with immediate removal of the excavated materials to another location on the site where fill is necessary, to prevent rapid or large-scale movement of soil and rock.

Any land disturbance necessary for installation of a stormwater pipe or channel will be immediately stabilized and the surrounding bank area will be stabilized with rip rap or other approved stabilization methods. The stabilized bank will limit erosion from the bank.

3. Excessive stormwater runoff

The disturbance of the steep slopes for the accessway is necessary to ensure a safe point of ingress to and egress from the site, as well as providing adequate circulation throughout the site. These improvements are to be conducted on an existing access road. The proposed disturbance for widening the road will be cutting into the existing slope, rather than grading and filling in earth. The proposed construction calls for improvements to the existing driveway by lowering it into the slope by 1-5 feet. This construction method is not anticipated to increase the velocity of stormwater runoff since the slope is proposed to be cut down.

The disturbance of the steep slopes for stormwater management will ensure that channelized flow will be utilized to manage stormwater runoff. This proposed disturbance will directly prevent excessive stormwater runoff since this proposed disturbance is to be incorporated into the broader stormwater management design measures for the entire property.

4. Protection of surface water

Protection of downstream lands and waterways and careful management of construction methods and activities to prevent rapid or large-scale movement of soil and rock and excessive stormwater runoff will ensure protection of surface water in the immediate area. The steep slopes disturbance for the accessway is a cut process that will be extracting rock from the slopes, rather than moving or filling of earth. Extracted material will be moved on-site in an appropriate timeframe to ensure that no rapid or large-scale movement of rock will take place. Additionally, as a cut process around an existing accessway, it is not expected for excessive stormwater runoff to be produced by this disturbance. Together, these factors will ensure that the disturbance will not impact surface water in the area. Land disturbance activities regulated by Virginia DEQ and the Albemarle County Water Protection Ordinance will be conducted in accordance with these regulations that exist to ensure responsible land disturbance and ultimately protect water quality.

Disturbance affiliated with stormwater management is expected to be minimal and once in place, the stabilization measures will contribute to enhanced protection of surface water by minimizing erosion of the natural bank.

5. Character of steep slopes unchanged

Due to the cutting process of the steep slopes disturbance for the accessway, the character of the steep slopes will remain relatively unchanged. Since there is already an existing paved driveway on the site in the location where the proposed accessway is to be constructed within the preserved slopes, the character of the slopes will remain largely the same. This existing travelway sits at the top of the ridge, and to provide adequate width, the accessway will further cut into the ridge and be widened. Overall, the proposed accessway improvements will not significantly change the character of the steep slopes as the existing driveway is currently present in the locations slated for slopes disturbance.

The stabilization of the bank will maintain the integrity and general characteristics of the slopes, whereas a non-stabilized bank is more susceptible to erosion.

6. Section 33.40(b)(1) – No substantial detriment

As previously stated, the disturbance of the steep slopes for the accessway is localized to the areas immediately around the existing road to provide adequate access to and from the site. Because it is anticipated that very little soil will be present in the localized areas of slopes disturbance and that process will cut and extract rock and little soil, it is not expected for there to be rapid or large-scale movement of rock and soil, and excessive stormwater runoff attributable to the proposed accessway improvements, and therefore negative impacts to downstream lands and waterways, and surface water are not expected. This plan was intentionally structured as a cut and extraction process, which we deem the most appropriate method in ensuring that the existing terrain and surrounding environment will be respected. Though we expect that rock will consist of the majority of the material, specifically identified enhanced erosion and sediment control measures can be implemented, such as a wire-supported silt fence. The proposed accessway improvements will adhere to applicable stormwater runoff regulations.

The disturbance of slopes for stormwater management will feature localized disturbance for drainage way construction and will be stabilized not only in the drainage way but also on the bank immediately surrounding the drainage way. This stabilization will help to prevent further degradation of the bank and ensure no substantial detriment from this disturbance to the waterways or downstream properties will be incurred.

7. Section 33.40(b)(2) – Character of the nearby area unchanged

The design of the disturbance intends to preserve the character of the steep slopes, as well as the character of the nearby area. As previously stated, proposed accessway improvements within the steep slopes overlay are slated for areas where there is an existing driveway that requires improvements for enhanced vehicular circulation on the site and increased safe access. Currently, the driveway is approximately 11 feet in pavement width, and in order to provide adequate improvements to facilitate safer ingress and egress to the site, we propose the road to be widened to 20 feet with an additional shoulder width of 4 feet on both sides. The land disturbance within the steep slopes overlay for the accessway is exclusive to a localized portion of the property and will not impact the character of adjacent parcels nor the nearby area.

The slopes disturbance for stormwater management will ensure the character of the slopes is not compromised by increased erosion. The bank stabilization is exclusive to this property and will not impact the character of the nearby area. The stabilization of the bank will ensure the topographic characteristics of the bank are maintained.

8. Section 33.40(B)(3) – Harmony

In order for redevelopment of this site to be possible, the special use permit to allow for safe access to and from the site is necessary. Overall, the aim of this ZMA and SUP application is to establish market-rate affordable housing in a unique "natureful" setting within a desirable and convenient location of the development areas.

The location of the property provides a prime opportunity. The property sits beside the UVA Research Park and the National Ground Intelligence Center. Both are major regional employers. Currently, UVA Research Park seeks to implement an expansion of their business park, with no plans for housing, while NGIC has many traveling and temporary employees in need of temporary rental housing. Furthermore, the property is immediately adjacent to Route 29, a major commuter corridor, and is close to the City of Charlottesville and Ruckersville, two employment hubs in Central Virginia. Housing that is affordable in this area would provide a key benefit in this strategic location. Due to the nature of the property and the development vision of the applicant, River's Edge cannot be subdivided and will be wholly rentable units.

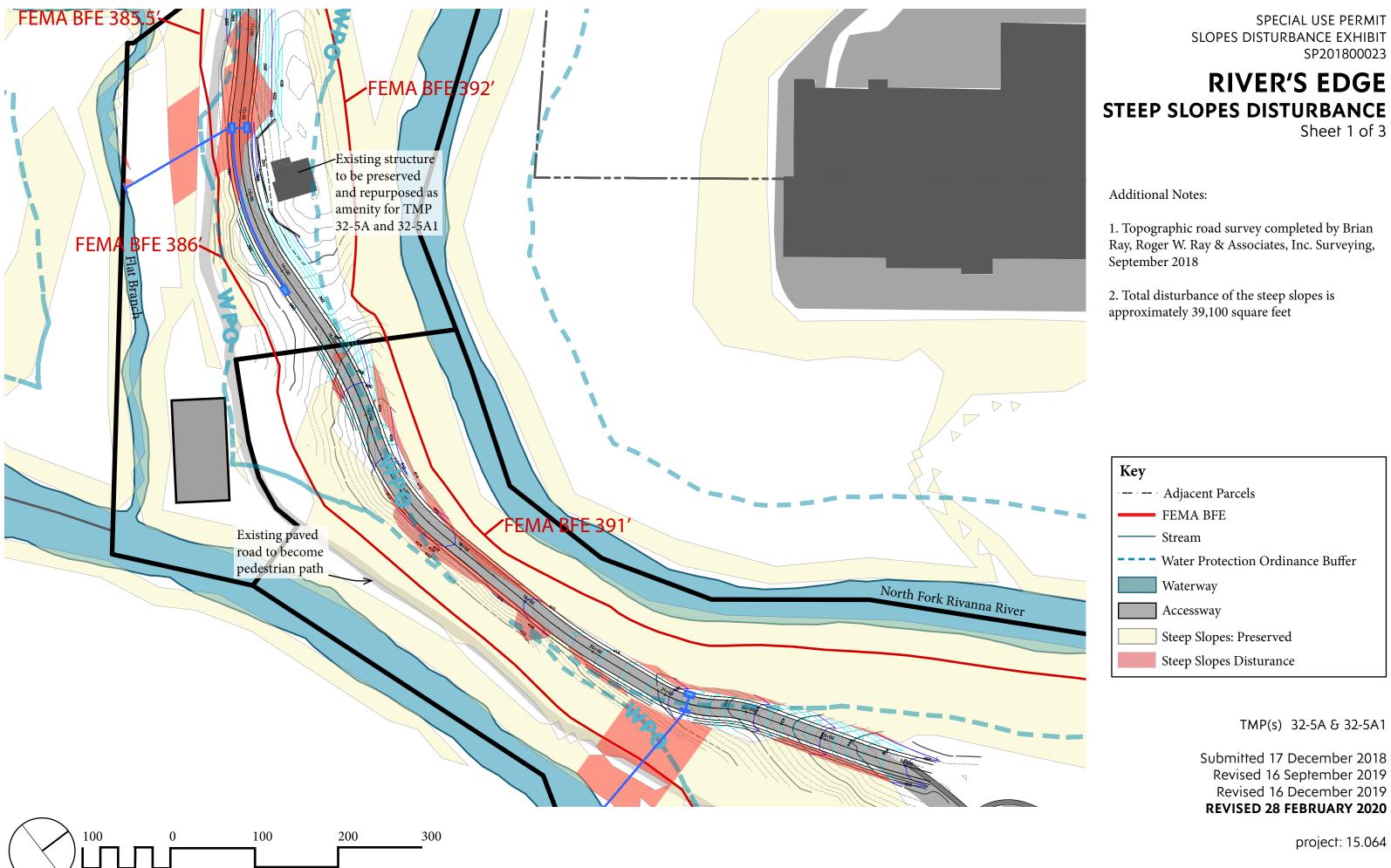
The small footprints and pre-fabricated construction methods of the proposed units allow for the units to largely interact with the existing topography and lay lightly on the land by utilizing pillar foundations, ultimately contributing to a development on the property that is respectful of the natural beauty of River's Edge. The small square footage of individual structures allows for

flexibility in design and orientation of the structures in relation to the existing topography on the site, creating a more harmonious community within the existing conditions. Development is set far back from Route 29, which maintains the forested buffer of the Entrance Corridor.

The overall design of River's Edge strives to take into consideration the existing conditions around and on the site, as well as the greater County context. In order for this development to be feasible, the accessway must disturb approximately 16,000 square feet of steep slopes, where disturbance is localized around the existing driveway and stormwater management facilities are anticipated to disturb 23,100 square feet of slopes for construction of adequate drainwage ways and affiliated stabilization of the surrounding banks.

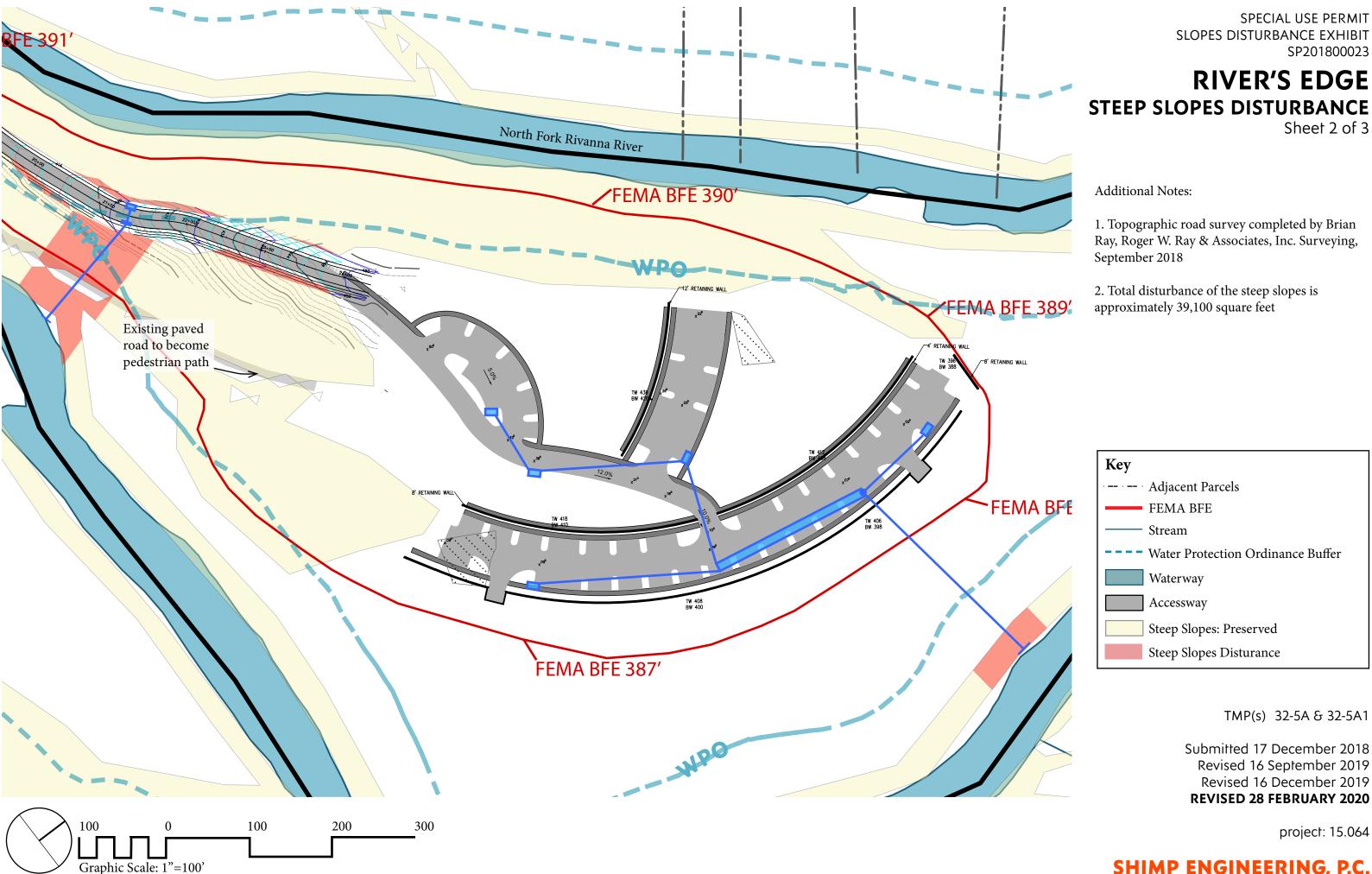
9. Section 33.40(B-4) – Consistency with the Comprehensive Plan

The Comprehensive Plan designates these parcels as Neighborhood Density Residential and Privately-Owned Open Space, with the current zoning of the site as Rural Areas. The land use designation of Neighborhood Density Residential allows for 3-6 units per acre. The developable area of River's Edge is approximately 8.62 acres, indicating a Comprehensive Plan recommendation of approximately 26-52 units. Due to the exceptionally small footprint of these units, 100 units are proposed and the applicant has proposed restrictions on a maximum unit size of 1,200 square feet and a maximum building footprint area of 50,000 square feet. This property will be entirely rentable units and will not subdivided. Regardless, due to the present conditions of the accessway, any redevelopment for Neighborhood Density Residential that would occur on the site would require accessway improvements and a stormater management plan in accordance with applicable Albemarle County Water Protection Ordinance and DEQ regulations. Privately-owned open space is a substantial piece of the rezoning application, aimed to create opportunities for nature-based recreation within River's Edge. Please refer to the ZMA application for more details on open space and recreational space proposals.



Graphic Scale: 1"=100'

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