
THE MONARCH

A Nelson County Inn and Farm

559 Rockfish School Lane

Nelson County, Virginia

Special Use Permit Applications



Viridian Properties, LLC

Wendy Summer and Michael Matthews

Charlottesville, Virginia

July 23, 2015



INTRODUCTION

THE MONARCH

The Monarch Inn and Farm will be a sustainable, low-impact, four-star retreat for visitors who are drawn to the peace, beauty, activities and attractions of Nelson County. Nestled in the heart of the Blue Ridge, The Monarch will give visitors access to the bounty of Nelson County. Spectacular views. Peace and quiet. Endless hiking and biking opportunities. Four seasons. Nationally-ranked golf. Downhill skiing. Wineries. Breweries. Cideries. Distilleries. World Heritage Sites nearby at Monticello and the University of Virginia. The Monarch is an ideal destination for residents from the DC/Baltimore area as well as Charlottesville, the Valley, Richmond, Roanoke and North Carolina. It is our hope that The Monarch will not only serve these travelers, but that it will also serve the local community by providing good-quality employment opportunities, "clean" tax revenue and an enhancement of tourism. Additionally, we hope that The Monarch will be integrated into the unique fabric of this community, creating mutually beneficial partnerships and collaborations with local businesses, artisans and farmers.

THE CONCEPT

We are long-time admirers of Nelson County, having vacationed, worked and lived here during various parts of our lives. As we developed the concept of building a luxury country inn, we naturally gravitated to the Rockfish Valley, a place that has brought us so much enjoyment and is currently so vibrant. We have been developing the idea for an inn for about three years. During these years, we also began learning more about the drastic population decline of the Monarch butterfly. This creature has enchanted us since we were children, as it is a beautiful, peaceful, wonderfully complex being. The butterfly's life cycle is a wonder of nature, ultimately flying from Canada to Mexico to overwinter. Unfortunately, the Monarch's existence is under great pressure from modern intrusions. We realized that our inn has the potential to offer help, and decided that we could create an abundance of butterfly "waystations" on the inn property. Once established, these waystations will provide habitat for Monarchs as they make their long journey south. We love the idea of giving respite to both butterflies and people, and believe that both will return again and again to be nurtured by the Nelson countryside.

As our concept for the inn developed, we studied many properties in Nelson, looking for the ideal combination of natural beauty and accessibility. We believe this property on Rockfish School Lane has it all - and more. The views are spectacular, the land is beautiful, and the property is located in the heart of the Route 151 action.

The Monarch will be a four-star property providing exceptional service with these features:

An inn with approximately 45 rooms, ranging from a cluster of vernacular barn-like structures near the existing pond to rooms within the inn building to stand-alone cottages. The main inn building will have a meeting room, seating approximately 20 people for corporate retreats and gatherings.

A full-service restaurant on a hilltop location with spectacular views of the Rockfish Valley. The restaurant will be open to inn guests and to the public. A small farm shop will sell a variety local products.

A spa offering traditional treatment services along with a small fitness area for inn and day-spa guests.



THE TEAM

We have assembled a top team of experienced, creative professionals to dream, plan, and ultimately execute the plans for The Monarch. The team is particularly skilled and experienced in high-quality hospitality projects across the country. Our team includes:

Michael Matthews and Wendy Summer	Charlottesville VA	Applicant / Project Owner
Matthews Development Company LLC	Charlottesville VA	Development and Project Management
The Highland Group	Atlanta GA	Hospitality Feasibility Study
Bushman Dreyfus Architects	Charlottesville VA	Architect
Waterstreet Studio	Charlottesville VA	Land Planner / Landscape Architect
WW Associates	Lynchburg/C'ville VA	Civil Engineering & Surveying
Roger Nelson	Nelson County, VA	Soil Scientist
TrueNorth Environmental	Charlottesville VA	Hydrogeologic Study
Keiter	Richmond VA	Accounting / Financial Studies

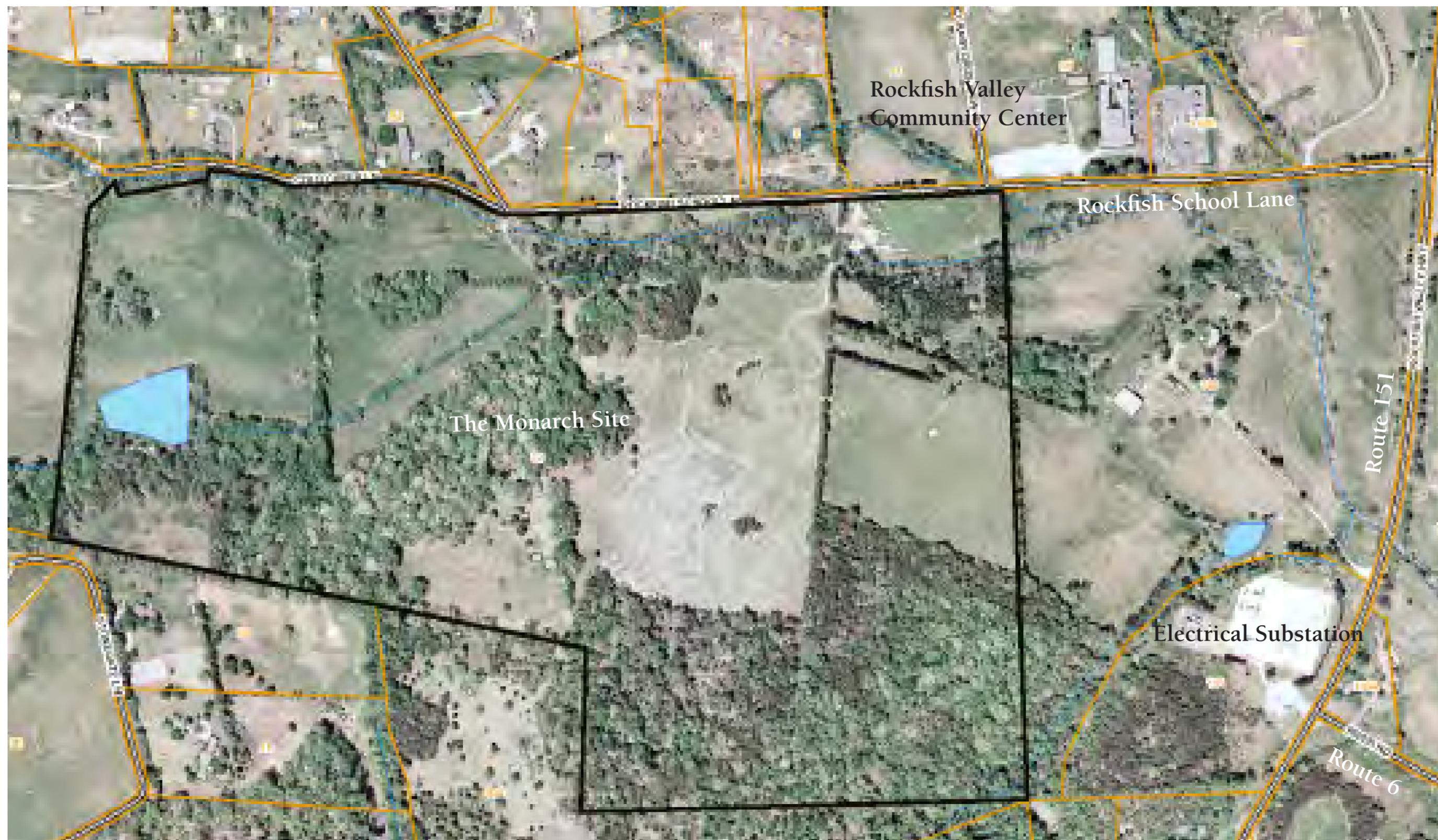
THE PROPERTY: 559 ROCKFISH SCHOOL LANE

We studied many properties in Nelson County over the last several years, looking for that perfect blend of natural beauty, accessibility and location in an inspirational setting. We knew immediately upon walking the property that the 114-acre site we have selected for The Monarch was THE site. Among the features that attracted us to the property are:

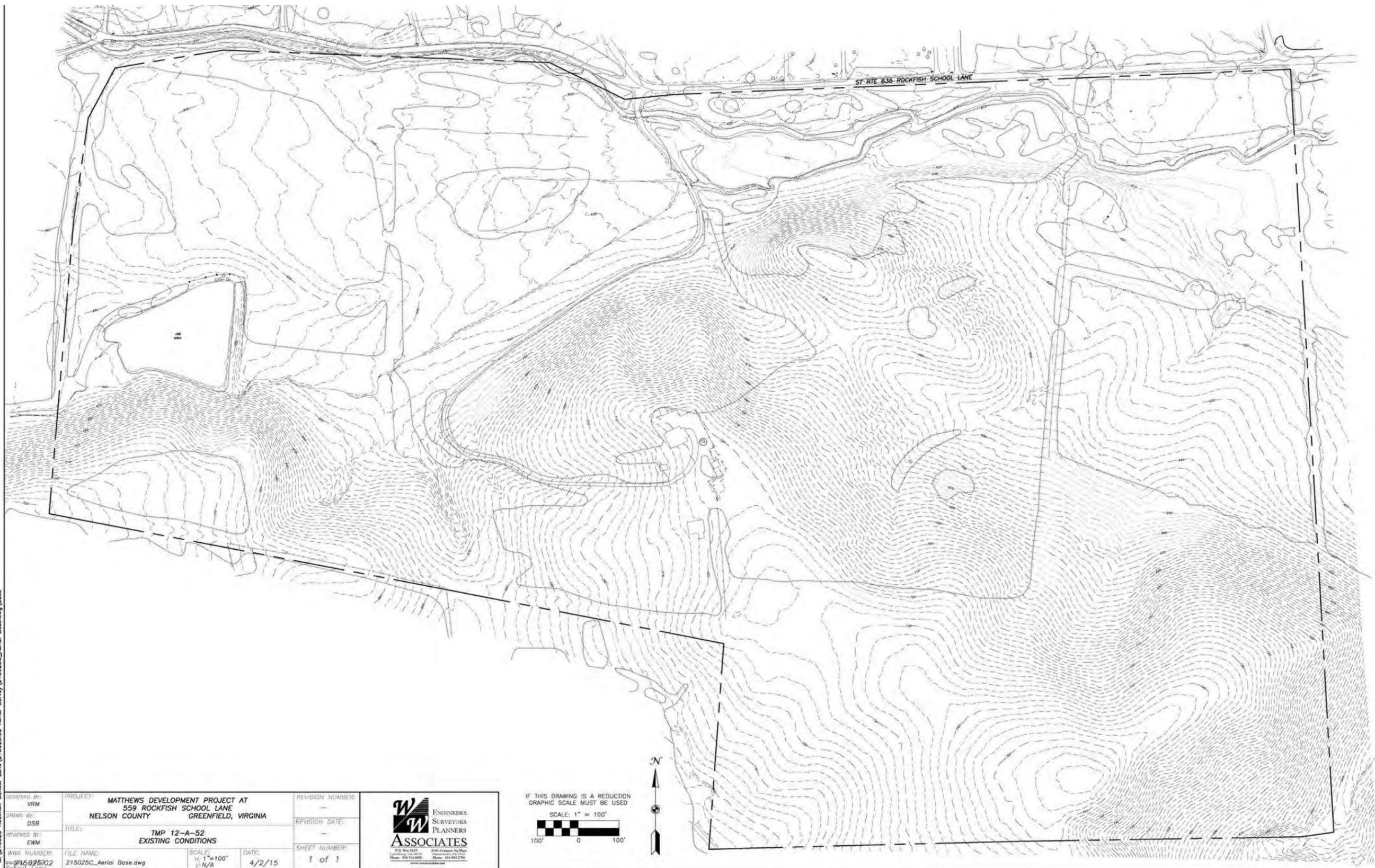
- Adequate land area to permit low-intensity, respectful development of the property. What draws us to Nelson County is the rural setting, the peace, and the natural beauty. We are committed to preserving and enhancing those characteristics above all else, while offering our guests an exceptional experience befitting a four-star hospitality property.
- Spectacular views of the surrounding mountains on a property that is rich with open fields, rolling meadows, woodlands, a bold stream, a pond and a variety of habitats.
- Great accessibility to major travelways. The property is a few hundred yards from Route 151 at its junction with the Route 6 corridor, connecting to Route 29.
- A location immediately adjacent to the major north-south highway that lends itself to light development consistent with the Nelson County Comprehensive Plan goals. The property borders the Rockfish Valley Community Center and also an electrical substation located on Route 151 at Route 6.
- Proximity to major attractions like the Stoney Creek golf course, Wintergreen, wineries, breweries, cideries, distilleries, and other local places of interest.



Property Boundaries - Nelson County GIS



EXISTING TOPOGRAPHY



Land Use Plan & Conceptual Design



LEGEND

- 1 - Vehicular drive with easement; to caretaker's cottage
- 2 - Tennis courts, no lights
- 3 - Golf cart parking
- 4 - Barn structures (4 units each [16 units total]) with courtyard and fire pit
- 5 - Lawn
- 6 - Pond
- 7 - Sunset dock
- 8 - Caretaker's cottage
- 9 - Golf cart path
- 10 - Cottages (600 SF, 12 total)
*potential location for two (2) additional cottages
- 11 - Orchard with butterfly/pollinator gardens
- 12 - Ellipse garden/lawn
- 13 - Monarch Spa and Fitness Center
- 14 - Vehicular drop-off
- 15 - Monarch Inn and courtyard
- 16 - Swimming pool
- 17 - Natural pool
- 18 - Rain garden
- 19 - Wooded parking lot
- 20 - Main drive with allee planting
- 21 - Butterfly gardens
- 22 - Restaurant and bar
- 23 - Upper terrace with bocce courts
- 24 - Lower terraces
- 25 - Mown pedestrian path
- 26 - Earthen mounds
- 27 - Entry drive with existing hedgerow planting
- 28 - Orchard
- 29 - Solar arrays
- 30 - Butterfly/pollinator meadows with forbs
- 31 - Main entrance, new entry drive alignment and bridge
- 32 - Wet meadow
- 33 - Passive recreation; picnic area with fire pit
- 34 - Meadow planting

NOTE: Development will also require +/- 3 100 SF outbuildings for housekeeping and an additional barn for maintenance/grounds equipment



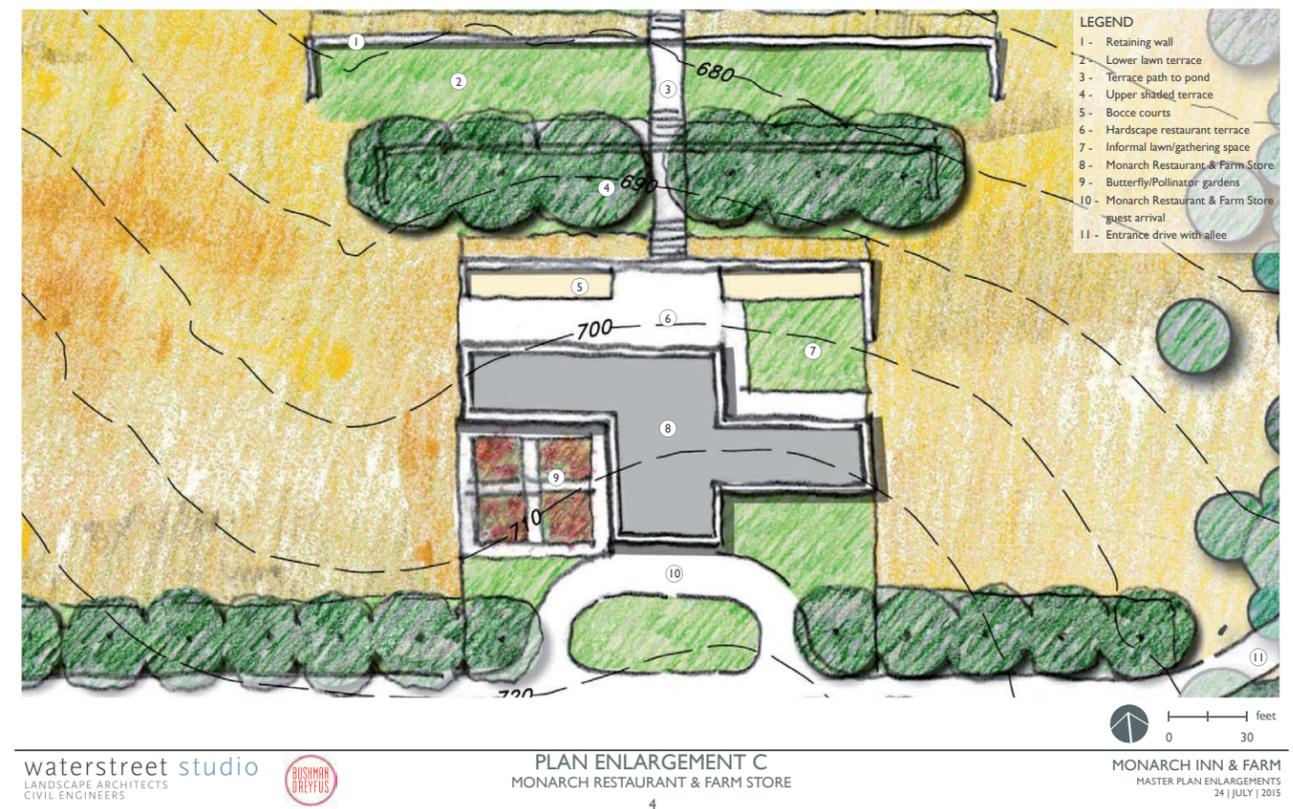
ENLARGED PLAN - THE RESTAURANT (Inset C)

Four inset plans have been developed to provide additional detail on the clusters of new structures. The master plan to the right indicates the location of the four insets.

The arrival and entry sequence is a critical consideration in fine hospitality projects. The main entrance to The Monarch will be located at an existing ford over Paul's Creek, close to the property's border with the Rockfish Community Center but prior to entering the residential part of Rockfish School Lane. Drivers would cross over this beautiful stream and begin to glimpse the restaurant on the hillside. "Peek-a-boo" views of the property will create a pleasant arrival experience as guests ascend the hill, protected by an existing fence line. Cars will then be relegated to a parking area nestled in the mixed hardwood and softwood forest, removing the intrusion of the automobile from the primary experience of the inn without compromising efficient, convenient access. Internal circulation will be largely through golf carts and walking.

The most public of Inn buildings, the restaurant, is the first building encountered and is adjacent to the main parking area that will serve both visitors and staff. A farm-to-table concept featuring local food with chef-inspired preparations will provide a wonderful addition to the dining options in Nelson and will attract destination diners. The restaurant will be open to the public. The conceptual restaurant design includes:

- One-story building with a rooftop terrace and bar for dining and enjoying the panoramic views across the Rockfish Valley.
- Active outdoor spaces that surround the restaurant, providing not just an aesthetically pleasing landscape but also areas for lawn games and socializing.
- A full restaurant kitchen, 50 indoor seats, 30 roof-top seats and a lounge of approximately 20 seats.
- A small farm shop/gift shop that will feature local products, including items enjoyed on the property or available from local partners.
- Total restaurant building size of approximately 4,000 square feet plus the farm shop of approximately 1,000 square feet.



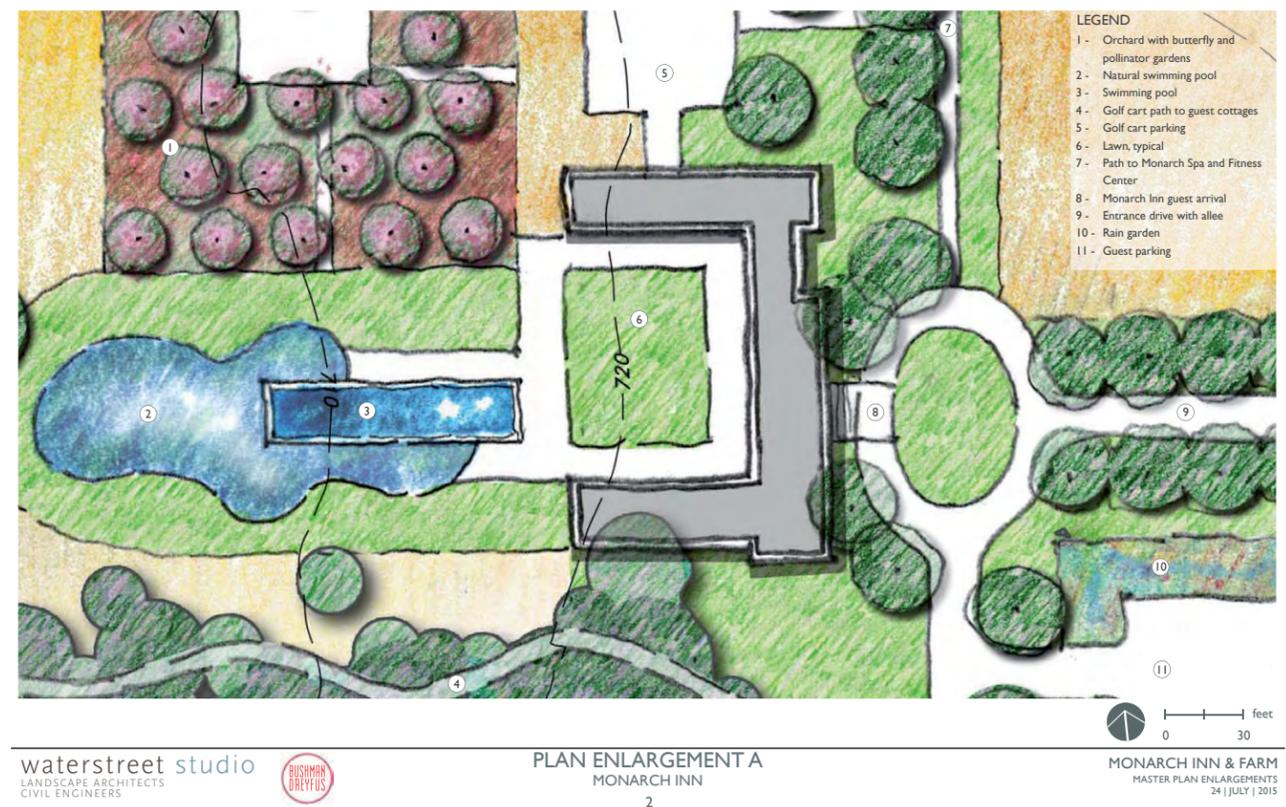
ENLARGED PLAN - THE INN (inset A)

The Inn building signals a transition from the public spaces to the more secluded Inn space. It is accessible by car at the arrival court, where vehicles will be valet parked or self parked in the nearby parking garden. The Inn will be located in an existing hay field on the west side of the ridge dividing the property into two distinct view corridors: one facing Route 151 and the Rockfish Valley from the restaurant area, and this Inn view facing west towards Crawford's Knob.

General characteristics of the Inn building based on current concepts are:

- Two-story building containing the arrival and welcome functions, a lounge and breakfast room for inn guests, a meeting room of 20 seats and up to 16 inn rooms. Back-of-house offices and service spaces will also be provided in the inn. Bulk laundry will likely be outsourced, but a small on-demand laundry will be necessary.
- A swimming pool with a naturalized water feature.
- Native plantings to create a combination of formal edges and naturalized outdoor rooms, including butterfly habitats. A wonderful ash tree at the end of the Inn meadow will be a visual focus towards the Crawford's Knob vista.
- A largely car-free stay, as vehicles will be parked in a wooded location near the inn check in. Walking and/or golf carts allow guests to fully experience the beauty and serenity of the setting. This feature also reduces The Monarch's noise impact in the neighborhood.
- Miles of walking trails that traverse woodlands, meadows and areas adjacent to Paul's Creek. Note that as these trails are created, we will be enhancing habitats that have been destroyed by cattle operations as well as restoring riparian buffers where possible.
- Total square footage of the Inn building between 15,000 and 20,000 square feet.

Several small barns and outbuildings will be required throughout the property for groundskeeping equipment, housekeeping supplies and other normal operational requirements of a working inn and farm.

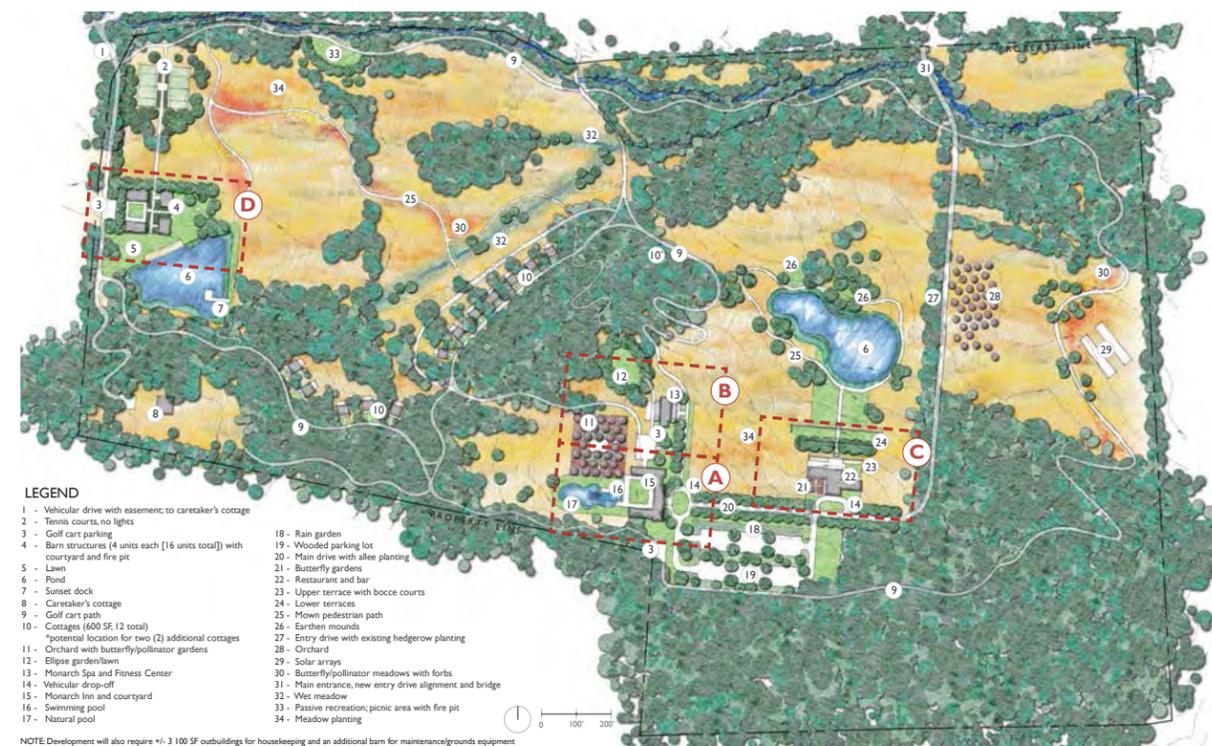


ENLARGED PLAN - THE SPA AND FITNESS CENTER (Inset B)

Adjacent to the Inn will be the Spa and Fitness Center in the location of the existing dwelling. The dwelling may be adapted for use and expanded, or replaced by a new spa structure. That decision will be made upon further development of the design concept and conversations with our spa operations partner. The spa will provide a typical resort-style menu of services including massage, facials, manicures, pedicures, and other customized treatments.

The fitness center will include a small gym typical of nice hotels with a limited array of cardiovascular machines as well as fitness/stretching/weight training equipment. A small yoga, relaxation, and meditation studio will also be provided.

The spa is projected to be at approximately 2,500 to 3,500 square feet.



waterstreet studio LANDSCAPE ARCHITECTS CIVIL ENGINEERS | **KEY PLAN** | MONARCH INN & FARM MASTER PLAN



waterstreet studio LANDSCAPE ARCHITECTS CIVIL ENGINEERS | **PLAN ENLARGEMENT B** | MONARCH SPA & FITNESS CENTER | MONARCH INN & FARM MASTER PLAN ENLARGEMENTS 24 | JULY | 2015



ENLARGED PLAN - THE BARNS (Inset D)

The lower west portion of the property along the existing pond provides spectacular views in both directions along the east-west axis across beautiful meadows, and is also screened from adjacent residential development along Cold Creek Lane by an existing thicket.

The Barns are envisioned as vernacular barn-like structures evocative of the property's history as a working farm. Up to four buildings with four rooms in each are planned here.

Two tennis courts (without lights) will be nestled into the northwest corner of the property near the creek.

THE COTTAGES

Though not shown as an inset, a total of 14 cottages offering private, individual accommodations as depicted by item #10 on the master plan will provide a premium lodging experience for our guests. Cottages are expected to be approximately 600 square feet each with porches. Cottages will be individually sited to minimize disturbance of the land. All of the accommodations on the property will be linked by cart or walking paths.

INNKEEPERS' COTTAGE

Also not shown on the inset plan but noted as item #8 (Caretaker's Cottage) on the Key Plan is the Innkeepers' Cottage. This building will provide us, as the Innkeepers, an on-site home base. The current plan is that this single family home would be built at a later date, after construction on the other buildings is complete.



ILLUSTRATIVE IMAGE SURVEYS - THE "LOOK AND FEEL" OF THE MONARCH (not the actual design)



an inn reminiscent of traditional farm houses



buildings that recall typical farm buildings



The Monarch
a Nelson County country inn

rooted in local building traditions



ILLUSTRATIVE IMAGE SURVEYS - THE "LOOK AND FEEL" OF THE MONARCH (not the actual design)



native landscapes, gardens & wildlife habitats



farm-to-table dining + local food & artisan shop



relaxed outdoor living



daylit interiors and natural ventilation



The Monarch
a Nelson County country inn

a focus on sustainability



The Special Use Permit Request

THREE SPECIAL USE PERMITS

The master plan for The Monarch is an integrated landscape and building program crafted to meet the anticipated needs of the local and traveling public. The design reflects market research by our national hospitality consultant and conceptual building designs by our local team of hospitality designer experts Bushman Dreyfus Architects, Waterstreet Studios, and WW Associates. The collection of small-scale buildings on the site is in keeping with the rural character and pastoral heritage of the Rockfish Valley. There is no single zoning ordinance section that contemplates a planned resort of this type. Three Special Use Permits are requested pursuant to Section 12-3:

- 4-1-13a Conference Center, to provide for the overnight accommodations and type of events typically held at a nice inn/resort.
- 4-1-34a Restaurants, for the restaurant that will serve both the general public and the inn guests
- 4-1-44a Activity Center, to provide for the spa and fitness center. Center is available to inn and day spa guests.

Section 12-3-8-b provides that the Board of Supervisors may set a timetable for the establishment of the use on the property, and if none is specified, the limit shall be within twelve months. We are requesting that the Special Use Permits provide for a minimum of twenty-four months to establish the use based on the expected time to complete the design of the project and then construct the buildings. We anticipate the design time to take eight to twelve months, and construction approximately a year.

Since The Monarch is a comprehensive planned development, all three special use permit applications are needed for the plan to be viable. We request that all three be viewed as a “package” and considered jointly rather than severally in any final action.

Although not the subject of this application, it is expected that a request for consideration of a stream crossing (requiring a Special Use Permit for activities within the floodplain) for the main entrance pursuant to Section 10 of the ordinance will be submitted when the major site plan is developed. The proposed location shown on the master plan for the new entrance is along an existing farm road and ford crossing Paul’s Creek. Locating the main entrance here, rather than in the location of the existing driveway at Cold Creek Lane, will provide much better circulation and access to the public part of the property (the restaurant and parking) and, most importantly, will divert all traffic immediately off Rockfish School Lane near the driveway for the Rockfish Valley Community Center and before cars would need to pass existing residences along Rockfish School Lane. We view all of those as very positive aspects of a revised main entry location.



JUSTIFICATION FOR SPECIAL USE PERMIT REQUESTS

The Nelson County Code provides that a Special Use Permit application must meet the four criteria outlined in Section 12-3. We believe The Monarch meets or exceeds each criterion as noted below:

12-3-2.a: The use shall not tend to change the character and established pattern of development of the area or community in which it proposes to locate.

This property was specifically selected with this criterion in mind. The farm is located in an area of public and industrial uses immediately adjacent to its borders. The Rockfish Valley Community Center established a public, active presence on Rockfish School Lane. The proposed entrance to The Monarch is located close to the Community Center with the intent of containing public circulation to already public areas. Cars for visitors and guests will not pass the houses along Rockfish School Lane but will quickly exit that road and circulate internally on The Monarch property. A major electrical substation is located just east of the property along Route 151 at its junction with Route 6. Finally, The Monarch is situated immediately adjacent to the major north-south (Route 151) and east-west (Route 6) highways serving this part of the county. Development in the region is primarily located along the Route 151 corridor in general accordance with the Comprehensive Plan.

12-3-2.b The use shall be in harmony with the uses permitted by right in the zoning district and shall not affect adversely the use of the neighboring property.

The adjacent zoning districts are agricultural but consist primarily of single-family homes and a large farm, and the Community Center. The development of The Monarch is intentionally low-impact and of modest scale to respect these adjacencies. New structures are clustered to minimize footprints and keep the scale of the project appropriate for the area. The “public” components of the Inn, primarily the restaurant and parking areas, are situated closest to Route 151 and the entry roads. Parking is in the wooded area, in a naturalized setting, with significant buffer space from adjacent properties.

Buffer plantings will be utilized adjacent to the inn building between it and the nearest neighbor. The use of landscape screening will provide visual barriers and sound attenuation between properties.

We believe the economic model behind The Monarch concept is dependent upon creating a peaceful, natural, serene environment with rich, naturalized landscapes and architecture that respects the vernacular of the Rockfish Valley. This concept is entirely in keeping with the rural character of Nelson County. In other words, we are highly committed to preserving the peace and beauty that has attracted us and attracts visitors to the area. This natural alignment of incentives is an important part of our proposal.

12-3-2.c The proposed use shall be adequately served by essential public or private services such as streets, drainage facilities, fire protection and public or private water and sewer facilities.

The property is accessed by Rockfish School Lane near its intersection with Route 151. Private water and septic facilities will be required for the site and have been studied at the conceptual level. The Appendix

contains detailed engineering reports for the domestic water system and the on-site septic disposal system, including conceptual drainfield layouts for the waste water system. It was an important consideration for economic feasibility and long-term viability of the site that we fully understand these essential utility services and provide both designs and conceptual budgets at this very early land-use evaluation stage.

The hydrogeologic study conducted by TrueNorth Environmental concludes that water resources on the site are expected to exceed the requirements for The Monarch and will not be an adverse factor.

The wastewater system was studied by Roger Nelson, a soil scientist based in Nelson County, and by WW Associates, a large engineering firm based in Lynchburg and Charlottesville that has special expertise in designing systems for large and small projects. The restaurant will require a packaged treatment facility with dispersion field located in the outstanding soils near the parking area. Low-pressure distribution piping will deliver the water to the drainfields or central system.

The wastewater generated by The Monarch, other than the restaurant, approximates normal residential waste. The number of rooms, none of which are currently designed to include kitchens, generate similar waste to about eight to ten homes spread across our 114 acres. The restaurant will require a packaged system similar to others installed along the Route 151 corridor, though this system will not be subject to the high-intensity waste stream created by brewing operations. It will simply be typical restaurant waste. The diagrams and reports in this package suggest that wastewater treatment can be handled on site for the level of development depicted on the master plan.

Stormwater treatment will be handled with a combination of rain gardens for nutrient removal and possibly with the new pond located below the restaurant. The site is large enough to provide many opportunities for thoughtful, creative stormwater management in a manner that will enhance the landscape and possibly provide an opportunity for rainwater harvesting and recycling. WW Associates will develop comprehensive stormwater management plans during the major site plan design phase.

In terms of proximity to fire and rescue, the property is located 5.8 miles from the Rockfish Valley Volunteer Fire and Rescue and 3.6 miles from the Wintergreen Rescue Squad.

A solar array is planned for the lower field to take advantage of the ideal solar orientation for production of supplementary power for the property.

12-3-2-d The proposed use shall not result in the destruction, loss or damage of any features determined to be of significant ecological, scenic or historic importance.

There are no features of significant ecological, scenic or historic importance threatened by The Monarch. In fact, we have opportunities to enhance habitats destroyed by cattle operations and restore riparian buffers along Paul’s Creek. A small private cemetery on the property will not be disturbed.



APPENDIX

1. APPLICATION FOR SPECIAL USE PERMITS

2. HYDROGEOLOGIC STUDY EXCERPTS

3. WASTEWATER STUDY EXCERPTS

FULL-SIZED MINOR SITE PLAN SHEETS AND DETAILS SUBMITTED
SEPARATELY IN COMPLIANCE WITH COUNTY CHECKLIST



APPLICATION MATERIALS

No. _____

TO THE ZONING ADMINISTRATOR:

1. **The undersigned** hereby petitions the Planning Commission and/or Board of Supervisors for approval of the following (check appropriate box):

- | | |
|---|--|
| <input type="checkbox"/> Rezoning from _____ to _____ | <input type="checkbox"/> Subdivision – Regular Preliminary |
| <input checked="" type="checkbox"/> Special Use Permit | <input type="checkbox"/> Subdivision – Regular Final |
| <input type="checkbox"/> Site Plan – Preliminary (Optional) | <input type="checkbox"/> Site Plan - Minor |
| <input type="checkbox"/> Site Plan – Final | <input type="checkbox"/> Site Plan - Major |
| <input type="checkbox"/> Amend text of Zoning Ordinance | <input type="checkbox"/> Other - _____ |

Pursuant to Article 12-3 Special Use Permits; Article 4, Agricultural Districts A-1: 4-1-13a Conference Center; 4-1-34a Restaurants; and 4-1-44a Activity Center; Article 12-3-8-b for 24-month validity period (of the Nelson County Zoning Ordinance)

Reason(s) for request: Provide for the establishment of The Monarch, a Nelson County Inn and Farm: an inn, restaurant and spa as further described in the attached materials.

2. **Applicant(s) and Property Owner(s):** (Please print names of applicants and property owners and indicate applicable title. If applicant is not the property owner, show relationship, i.e. lessee, contract purchaser, etc.)

Applicant

Name: Wendy Summer and Michael Matthews
 Viridian Properties, LLC and Matthews Development Company LLC
Address: 1047 Woodlands Road, Charlottesville VA 22901
Tel. No.: 434-972-7764
Cell No.: 434-242-5001
E-mail: mikem@matthewsdevelop.com
Relationship: Contract Purchaser (Viridian Properties LLC)

Property Owner

Name: Jeffrey and Susan Bergner, Trustee
Address: 4430 E. Beach Drive, Norfolk, VA 23518
Tel. No.: 703-405-7442
E-mail: bergnerjt@verizon.net

3. **Location and Characteristics of Property:**

- Address** of property including specific location, route numbers, street names, direction (NSEW), Magisterial District, etc.: 559 Rockfish School Lane, on the south side of Rockfish School Lane between the Rockfish Valley Community Center at Rt 151 and Cold Creek Lane; North District
Official Tax Map Number: 12 A 52
- Acreage of property:** 114.42 acres
- Present use:** Second Home / Cattle Farm
- Present zoning classification:** A-1
- Zoning classification of surrounding properties:** A-1

4. **Names of Adjacent Property Owners:** See Attached

5. **Affidavit:** The undersigned applicant(s) and or property owner(s) certifies that this application and the foregoing answers, statements, and other information herewith submitted are, in all respects, true and correct to the best of their knowledge and belief. Also, the applicant(s) and or property owner(s) gives permission for members of the Planning Commission, Board of Supervisors, and County Staff to visit and view the subject property.

Signature: Jeffrey T. Bergner
 Jeffrey Bergner, Owner Trustee

Signature: Susan Bergner
 Susan Bergner, Owner Trustee

Signature: Wendy Summer
 Wendy Summer, Contract Purchaser

Signature: Michael Matthews
 Michael Matthews, Contract Purchaser

6. **Additional information:** See attached Special Use Permit Application Supplemental Materials dated July 23, 2015 and attached minor site plan application materials

7. **Please note:** In the event of cancellation or postponement **at your request** after the initial newspaper advertisement for this application, an additional fee will apply for re-advertisement. The fee will be based on the actual cost of the ad, and will not apply in cases of Planning Commission or Board of Supervisor deferments.

*******TO BE COMPLETED BY PLANNING & ZONING OFFICE*******

Completed application and fee (\$ _____) received on _____
 Hearing Notice published on _____
 Planning Commission action: Date of Hearing: _____
 Recommendation: _____
 Board of Supervisor action: Date of Hearing: _____
 Date of Decision: _____
 Action: _____



APPLICATION MATERIALS

Properties adjoining the Monarch: A Nelson County Inn and Farm
(Tax Map 12 A 52)

7/22/15

Parcel ID	Parcel Address	Owner Name	Zoning
12 A 52	559 Rockfish School Lane	Bergner, Jeffrey T & Susan D, Trustee	A1
12 6 C	242 COLD CREEK LN	CONNER JEFFREY W	A1
12 5 1A	819 STONEGATE LANE	SAVA LOUIS & DOROTHY PAGANO	A1
12 4 C2	-	EIBEN LAWRENCE S & VIRGINIA L	A1
12 5 2A	758 STONEGATE LANE	CRIMI J GARY	A1
12 A 102	5601 ROCKFISH VALLEY HWY	SWAIN HUGHES C & RUBY FAYE	A1
22 13 4	-	BROSKY NICHOLAS J	A1
22 A 60B	-	KIER JACQUELINE	A1
22 A 60A	5025 ROCKFISH VALLEY HWY	WHITE MARY BARBARA	A1

North side of Rockfish School Lane

12 A 55	190 Rockfish School Lane	Rockfish Valley Community Center	
12 A 56	-	Sanderlin, James A Jr	A1 & R1
12 8 8	-	Lambert, Warren R Jr & Virginia M	A1
12 8 9	-	Lambert, Warren R Jr & Virginia M	A1
12 8 10	446 Rockfish School Rd	Arave, Kevin A & Nicole D	A1
12 8 7	454 Rockfish School Lane	Hanlon, Mark & Patricia	A1
12 8 6	470 Rockfish School Lane	Lambert, Warren R Jr & Virginia M	A1
12 8 5	494 Rockfish School Lane	Jacobsen, Scott A & Lara	A1
12 8 4	592 Rockfish School Lane	Kauffman, Donna K	A1
12 4 A2	615 Rockfish School Lane	Lychock, Janet	A1
12 6 A	124 Cold Creek Lane	Culler, D Gayle	A1
12 6 B	184 Cold Creek Lane	Stone, Carolyn B	A1



HYDROGEOLOGIC STUDY - EXECUTIVE SUMMARY EXCERPTS



July 17, 2015

Wendy Summer & Michael Matthews
Viridian Properties, LLC
1047 Woodlands Road
Charlottesville, Virginia 22901

Re: Preliminary Hydrogeological Analysis for the Monarch Inn & Farm

Dear Ms. Summer & Mr. Matthews,

True North Environmental (TNE) has completed the following limited hydrogeological assessment of the proposed Monarch Inn & Farm located on the west side of State Road Route 635 approximately 0.57 miles west of Route 151 in Nelson County, Virginia (Figure 1).

Background & Purpose

True North was contacted to render an opinion for the potential of the property to produce adequate volumes of groundwater to service the water requirements of the proposed development (Figure 2).

Conclusion

Based on the evaluation of available information and data, TNE believes that the site's hydrogeology is suitable for the planned use. The bedrock aquifer underlying the site would be expected to provide more than adequate volumes of water for the intended use.

Furthermore, the property possesses apparent groundwater/fractured zones especially within the subdued landscapes adjacent to Paul's Creek. These zones represent opportunities for drilling at precise locations where well yields would be expected to be greater than those for wells sited in a random fashion.

Finally, the theoretical groundwater availability analysis performed as part of this assessment suggests a surplus of groundwater available for use even under severe drought conditions and utilized some of the following conservative assumptions: (1) all water use is consumptive (that is, no water is returned into the ground via infiltration- this ignores the contributions of any drainfield systems), (2) all recharge to the aquifer would only take place within the boundaries of the 114 acres of the site and (3) approximately 10,000 gallons of water per day would be consumed.

NOTE: FULL 17-PAGE REPORT SUBMITTED SEPARATELY

Limited Hydrogeological Report
Monarch Inn & Farm

True North Environmental, LLC
July 17, 2015

Setting

The property is situated in western Nelson County and lies at the foot of the eastern flank of Blue Ridge Mountains at the base of Paul's Creek watershed. Paul's Creek flows into the North Fork of the Rockfish River approximately 0.50 miles east of the property near State Route 6. The Rockfish flows into the James River near Howardsville, Virginia.

Geology

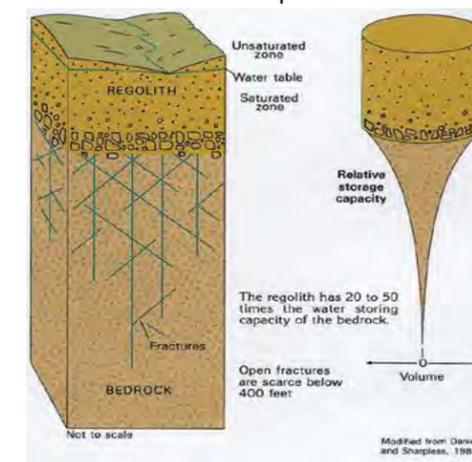
The property is underlain by two separate and somewhat distinctive geologic units (Figure 3). The eastern third of the site has been mapped by the USGS as being underlain by *Layered Biotite Granulite and Gneiss* (Ygb) while the majority of the property is underlain by *Mylonite* (my). Both are hard, brittle and crystalline rocks of the Piedmont province.

The Ygb unit a granulite and gneiss of mid to late Proterozoic age (circa 1250-980 million years). According to USGS: *the rock contains quartz, plagioclase (albite), microcline (includes assemblages with one alkali feldspar), biotite, ilmenite, and titanite; garnet and hornblende are commonly present. This unit is considered correlative with the Flint Hill Gneiss that has been dated at 1081 Ma (U-Pb zircon; Lukert and others, 1977).*

The Mylonite (my) rocks are thought to be late precambrian and according to the USGS represent fault zones with multiple histories of movement. The majority of the property is underlain by this particular unit (Figure 3). Technically speaking, "Mylonite Zones" occur in separate and discrete regions of the Piedmont and Blue Ridge Provinces and do not represent a singular formation. In this particular setting, the rocks are likely tectonized from the Layered Biotite and Granulite Gneiss that may have resulted in fine grained material that anastomosed around less deformed or undeformed adjacent rocks. Because of this, the actual location of contacts between tectonized rocks (my) and adjacent units is approximate, arbitrary and difficult to discern.

Hydrogeology & Fracture Trace Analysis Results

Groundwater in the piedmont of Virginia is stored in the regolith zone of the subsurface (area between subsoil and hard bedrock). In some cases, this "zone" can reach tens of meters in thickness and, depending upon locality, often stores a substantial volume of water (Figure on the left).



Fractured zones manifests themselves in the surface of the earth as straight-line, negative (trough shaped) landscapes where stream channels are often found. The source of groundwater is from precipitation that infiltrates downward through the soil and underlying material to competent rock.



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Upon encountering the relatively impermeable rock, the infiltrating water tends to saturate the residual materials (regolith) above the rock (representing the storage), supplying water to underlying fractures within the rock. Since fractures within the rock act as conduits for the movement of water, the greater the number of connected (water bearing) fractures within the rock the greater the yield of a particular well.

Because groundwater occurs in discrete fractured zones, it is not unusual to find variability in yields for wells in close proximity to each other. Again, the yield will depend on the size and number of discrete zones that are intersected by the borehole of a particular well. Siting a well on, or as close to, a fracture trace often increases the probabilities of discovering higher yields of water than would be found by random methods.

Fracture Trace Analysis Results

Stereo-aerial photographs were examined via a stereoscope for the occurrence of fracture traces/lineations. These are straight line features that are discernible via stereo-aerial photographs and sometimes via topographic maps. A site visit was conducted on June 30, 2015 to verify the findings. Figure 3 includes the location of the observable fractures.

A summary of the fracture occurrence suggests that the underlying bedrock appears fairly well fractured, especially in the lower landscapes. Furthermore, the fractures are considered to be potential groundwater zones where higher than average yields are possible for wells drilled proximal to these zones.

Soil

According to the National Resource Conservation Service (NRCS) mapping, the site area is underlain by residual and transported soils (Figure 4). The following series of residual soils were weathered in place from the underlying bedrock: the Hayseville Series (22D & 23D) and the Occoquon Series (34D). These are deep, well developed and permeable soils weathered from the crystalline bedrock.

The following soils were transported either via gravity or fluvial forces or both: the Delanco Series (12B), Hatboro Series (21A) and the Lew Series (28B).

The generally deep and well developed soils are thought to increase the groundwater potential of the site.

Groundwater Availability

Recharge to the proposed wells will be chiefly composed of precipitation that infiltrates within the watersheds contributing water to the aquifer. Nelson County receives, on average, approximately 49.1 inches of precipitation per year and the average effective recharge is reported to be 16.3 inches or 1.36 feet/year (Ward E. Sanford, David L. Nelms, Jason P. Pope, and David L. Selnick. *Quantifying Components of the Hydrologic Cycle in Virginia using Chemical Hydrograph Separation and Multiple Regression Analysis* - USGS Scientific Investigations Report

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2011-5198). Effective recharge is the net gain to the aquifer after runoff, transpiration and evaporation have been taken into consideration.

Certain conservative assumptions have been made to complete the groundwater budget calculations, and are as follows:

- Groundwater inflow from the subsurface upgradient from the subject site is assumed to be negligible.
- Groundwater withdrawals are assumed to be consumptive; that is, there is no return of water to the aquifer via infiltration.
- The only source of groundwater recharge is assumed to be infiltrated precipitation.

Recharge Estimate Under Normal Rainfall Conditions

The property encompasses a total area of approximately 114.42 acres. Impervious surfaces and groundwater discharge zones are assumed to be negligible. Using the aforementioned parameters, recharge (1.36 feet) to the 114.42 acre property equals approximately **50,605,123 gallons/year**. The daily average is approximately **138,644 gallons/day**. Please see Appendix A for the calculations used to arrive at these values.

Recharge Estimate Under Severe Drought Conditions

For a conservative estimate, a severe drought recharge rate is assumed to be based on 65 percent of average effective recharge for 12 months (as defined by the State Drought Monitoring Task Force). Using 16.3 inches (1.36 feet) as the normal annual effective recharge rate, the assumed recharge rate for a severe drought year would be 10.60 inches (0.88 feet).

The recharge volume within the 114.42 acre property boundary during a year of severe drought is estimated to be approximately **32,893,330 gallons/year**. The daily average would be about **89,883 gallons/day** (Appendix A).

Estimated Water Usage

Based upon the calculations by others, the daily water consumption has been estimated to be about 10,000 gallons/day. The annual groundwater consumption is therefore estimated to be 3,650,000 gallons/year.

Result

The average annual recharge volume would be expected to be approximately **50,702,610 gallons/year** under normal rainfall conditions and **32,807,572 gallons/year** gallons under severe drought conditions.

According to these calculations, the annual recharge is more than adequate to supply the estimated annual groundwater demand even under conditions of severe drought. Under normal rainfall conditions groundwater consumption would be about 7% of the total volume of recharge. Under severe drought conditions the volume would be approximately 11% of the



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total amount of recharge. Again, these calculations dismiss infiltration from other sources (such as drainfields) and contributions from offsite subsurface flow.

Well Record Data

True North conducted a query of well records in the general vicinity of the site that were made available by the Nelson County Health Department. True North sought well record for 22 properties and received reports on 7 wells. The well log of an existing well on the property was not available; however the well was drilled by Mr. David McGann who recalled that the site well was about 360 feet deep, was constructed with nearly 100 feet of casing and yielded about 10 gpm.

The average yield of all the wells (including the farm well) was 13 gpm, the average casing length (proxy for depth to rock) was 47 feet and the average depth of well was 240 feet.

It is assumed that these wells were positioned in the landscape based upon standoff distance requirements to drainfields and foundations and/or as a matter of convenience. In other words, the wells were randomly sited, rather than based upon the scientific method.

Discussion

The site is situated within a fractured bedrock aquifer setting. A fracture trace analysis of the site revealed numerous fractures on and in the general vicinity of the site. This suggests that the bedrock is moderately well fractured and, if so, would be expected to enhance groundwater availability.

The proposed project will use about 10,000 gallons of water per day, or about 7 gpm. The groundwater availability analysis within this report indicated a groundwater surplus could be expected even under the most severe drought conditions and that an adequate groundwater supply could be expected over the long term to sustain the water needs of the project.

A database query of randomly sited wells in the vicinity of the site indicates that the average well produces about 13 gpm. While exact predictions of individual well yields cannot be made, groundwater potential is thought to be greatest in the lower landscapes of the farm, especially in the vicinity of Paul's Creek where a number of bedrock fractures have been observed from stereo aerial photography and via site reconnaissance.

The soils underlying the properties are deep and well developed. They either formed in place from the underlying bedrock or were transported to their present position. The thick soil-saprolite column is well suited to groundwater storage and transmission to bedrock fractures.

Limitations

The work performed in conjunction with this project, and the data developed, are intended as a description of available information. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a specific location not investigated.

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Generally accepted industry standards were used in the preparation of this report. Stated opinions and conclusions are not intended as a guarantee. The only reliable way to confirm that

a sustainable groundwater resource is present is to drill a well and test it for quantity and quality.

True North appreciates the opportunity to be of service to you with this project. If you have any questions, please call me at 434-923-0888.

Best regards,



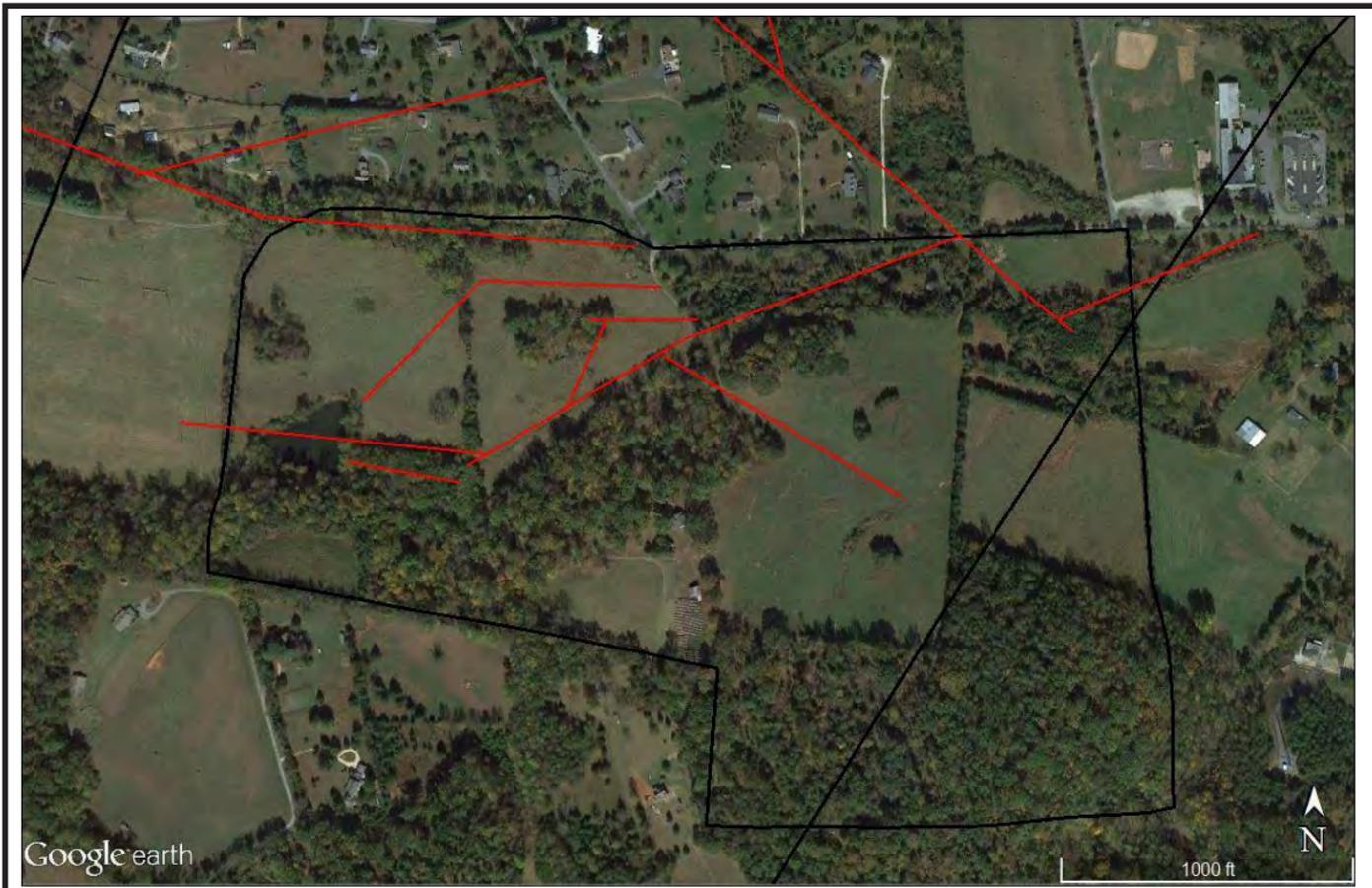
Vincent Day, CPG
Principal/Geologist

Figures

Appendix A
Qualifications



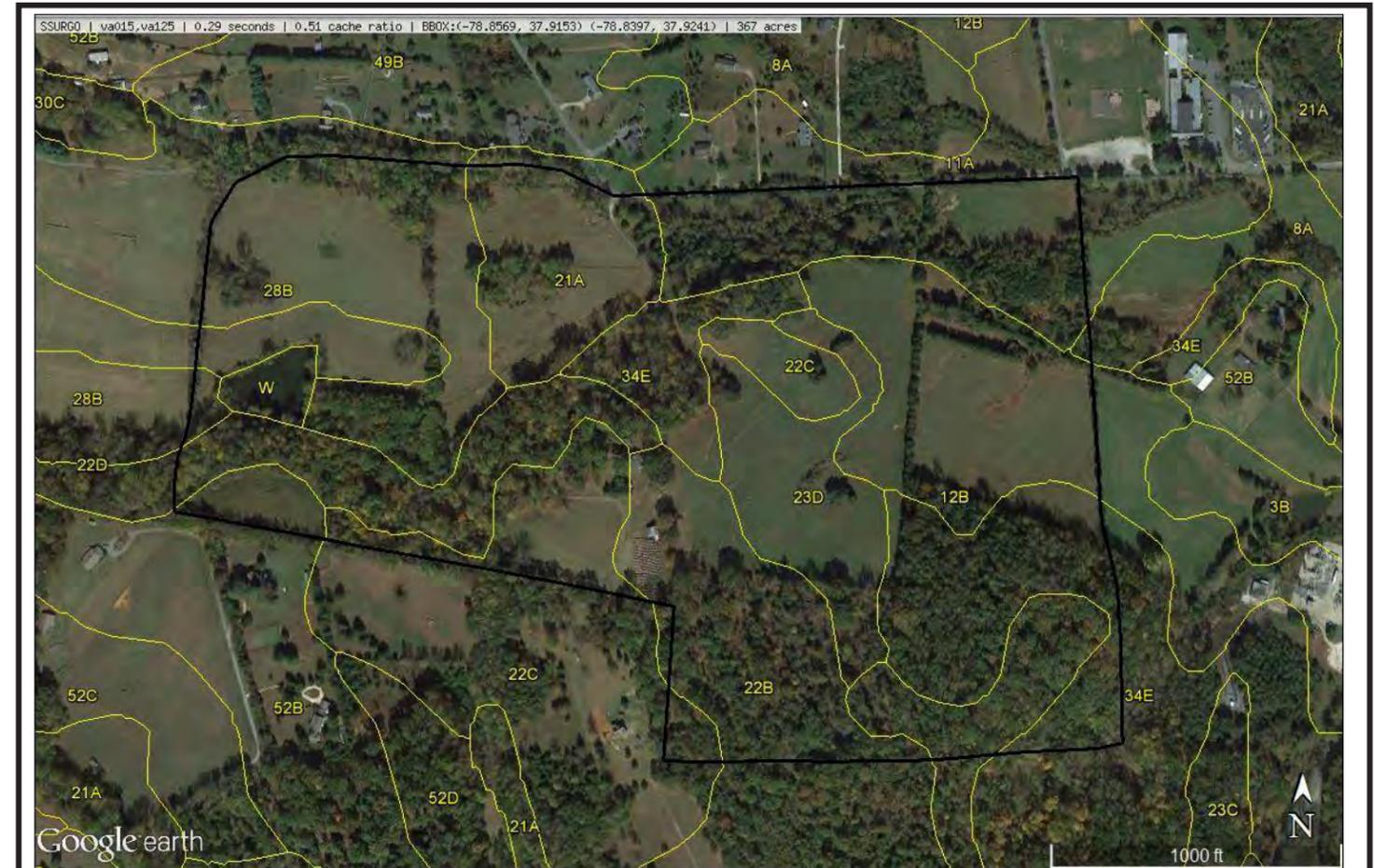
HYDROGEOLOGIC STUDY - EXECUTIVE SUMMARY EXCERPTS



GEOLOGY & FRACTURE TRACE ANALYSIS MAP

FIGURE
3

Source Map: GoogleEarth & USGS



**Monarch Inn & Farm
SOIL MAP**

FIGURE
4

Source Map: GoogleEarth & NRCS



WASTEWATER STUDIES

Air, Soil, & Water Environmental, LLC

568 Mayo Creek Lane
Wingina, Virginia 24599
434.263.6915 (office)
434.221.9000 (cellular)

June 9, 2015

Mike Matthews
Charlottesville, Virginia 22902

Re: Monarch Inn Farm
559 Rockfish School Lane
T.M. # 12-A-52
Nelson County, Virginia

Dear Mr. Matthews;

I have completed a preliminary soil feasibility study for the referenced project. The purpose of the feasibility study was to locate areas of soil that are suitable for the installation of subsurface sewage disposal systems that will serve guest cottages, a small inn, a fifty seat restaurant, and a day spa.

Soils were evaluated from backhoe pit excavations in the open areas and by soil auger profiles in the wooded portions of the parcel.

Areas of suitable soils were located adjacent to the pond on the west side of the property. Sufficient area is available to accommodate three multi-unit structures (the barns) that will contain four rooms each. The soils in this area contain a thirty per cent rock fragment but are good for use as a subsurface sewage disposal system.

A design rate of 50 minutes per inch (mpi) should be used at these sites for untreated septic tank effluent. At this rate the health department regulations require 251 square feet of infiltrative surface per 100 gallons of effluent. Therefore eight 100 foot long trenches will be required for every six of the barn rooms. This number should be increased by at least 30% to accommodate the rock fragment in the soils.

The central ridge and a portion of the field adjacent to the existing driveway are characterized by deep well drained saprolitic soils. These saprolitic soils were also observed on the hillside across the swale northeast of the farmhouse. They range from good to excellent for use as a subsurface sewage disposal system. A design rate of 45 mpi should be used in these soils for untreated septic tank effluent and 40 mpi for treated effluent.

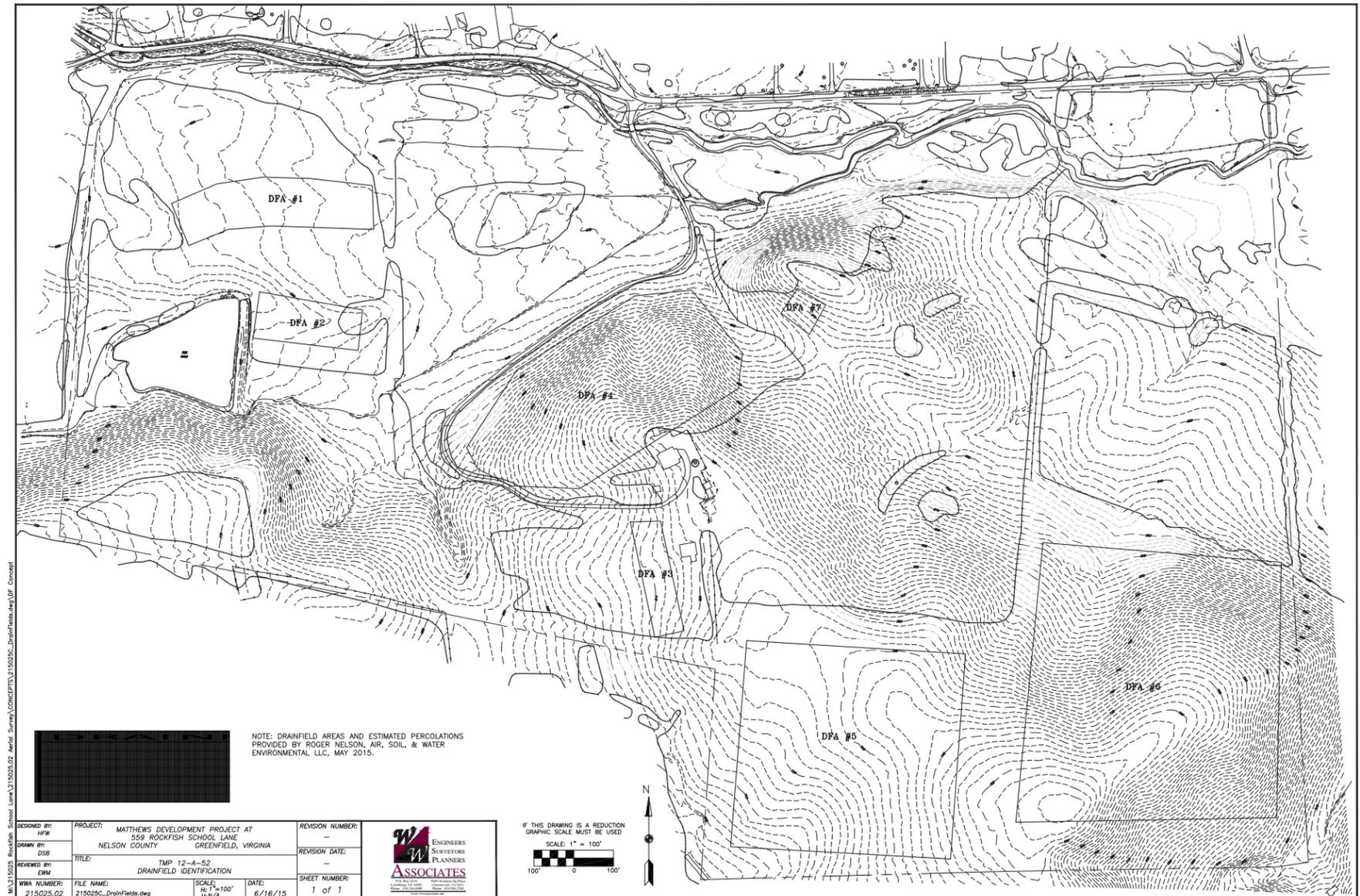
The largest area of suitable soils was observed in the wooded southeast portion of the property. This area is characterized by the saprolitic soils observed near the farmhouse and range from good to excellent for use as a subsurface sewage disposal system. This area is large enough to accommodate a large portion of the total sewage flow for the entire project. A design rate of 35 mpi for treated effluent can be used in this area.

The soils in the southwest corner of the parcel may also be used for subsurface sewage disposal. These soils have a higher clay fraction than the adjacent saprolitic soils in the southeast corner. A design rate of 65 mpi for treated effluent can be used in this area.

Please feel free to contact me if you have any questions or concerns related to the soils on the property and I thank you for the opportunity to assist you with this project.

Sincerely;

Roger C. Nelson



WASTEWATER STUDIES



M:\215025_Road\plan_School_Lane\215025_02_Aerial_Survey\CONCEPTS\215025C_WASTEWATER.dwg\WWT

DESIGNED BY: HFV	PROJECT: MATTHEWS DEVELOPMENT PROJECT AT 559 ROCKFISH SCHOOL LANE NELSON COUNTY GREENFIELD, VIRGINIA	REVISION NUMBER: -
DRAWN BY: TLB	TITLE: TMP 12-A-52 WASTEWATER COLLECTION & TREATMENT CONCEPT PLAN	REVISION DATE: -
REVIEWED BY: HFV	FILE NAME: 215025C_WASTEWATER.dwg	SHEET NUMBER: 1 of 1
WVA NUMBER: 215025.02	SCALE: H: 1" = 100' V: N/A	DATE: 7/10/15



IF THIS DRAWING IS A REDUCTION
GRAPHIC SCALE MUST BE USED

SCALE: 1" = 100'

