



**SPOTSYLVANIA COUNTY PLANNING COMMISSION MEETING
AGENDA
August 21, 2019 - 7:00 PM**

Call to Order

Pledge of Allegiance

Determination of a Quorum

Announcements

- Planning Update

Review and Approval of Minutes

- Review and Approval of Minutes from August 7, 2019

Unfinished Business

Public Hearings

- R15-0006: (RO15-0006) David Hunter/ Point Seanna (Livingston District)

Public Comment

New Business

Adjournment

By Order of the Spotsylvania County Planning Commission: The Planning Commission reserves the right to amend this agenda on the day of the meeting. The Commission encourages the participation of all county citizens. For those with special needs, please notify the Planning Department Office of any accommodation required five days prior to the meeting you wish to attend.

Spotsylvania County
Planning Commission
Executive Summary

 **Print**

Meeting Date: August 21, 2019

Title: Planning Update

Type: No Action (Information Only)

Agenda Title: Planning Update

Recommendation: None

Summary: The Planning Update is attached.

Committee/Commission Summary:

Review Date: Status:

Financial Impact:

Staff Contacts: Wanda Parrish, Director of Planning


Legal Counsel:

Additional Background/Other

Considerations:

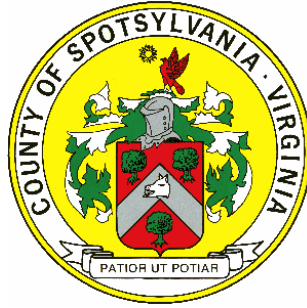
Consequence of Denial/Inaction:

ATTACHMENTS:

| Name: | Description: | Type: |
|---|-----------------|-----------------|
|  Report_to_PC_20190821.pdf | Planning Update | Backup Material |

Board of Supervisors

Greg Benton
Kevin W. Marshall
Timothy J. McLaughlin
David Ross
Gary F. Skinner
Paul D. Trampe
Chris Yakabouski



Department of Planning & Zoning

Wanda Parrish, AICP, Director
9019 Old Battlefield Blvd., Suite 320
Spotsylvania, VA 22553
(540) 507-7434
wparrish@spotsylvania.va.us

PLANNING UPDATE

August 14, 2019

UPCOMING PLANNING COMMISSION MEETINGS

Wednesday, September 4, 2019 at 7:00 pm (Tentative)

SUP18-0010 Vertex Auto Sales (Courtland District)

Comprehensive Plan work session – Park & Recreation

COMMUNITY MEETINGS

None

NEW PUBLIC HEARING CASES

None

NEW PRELIMINARY PLATS

None

Spotsylvania County Planning Department Public Hearing Cases Status Report

| Application # | Lead Staff | Applicant | Project Name | Tax Map # | Address | Description | Proffer Law | Application Complete | Status | Voting District |
|---|-----------------|---|-----------------------------------|-----------------------------|-----------------------------|---|-------------|---|--|-----------------|
| COMPREHENSIVE PLAN AMENDMENTS | | | | | | | | | | |
| CPA17-0002 | Jacob and Wanda | Spotsylvania County Planning Commission | Comprehensive Plan Update | Multiple | Multiple | 5 year review and update to the Comprehensive Plan per Code of VA | N/A | NA | Ongoing | Countywide |
| CODE AMENDMENTS | | | | | | | | | | |
| | | | | | | | | | | |
| REZONINGS & PROFFER AMENDMENTS | | | | | | | | | | |
| R15-0006 | Leon | David L. Hunter | The Towns at Point Seanna | 69-5-B & 69-5-A5 | 4900 Corsair Terrace | Rezoning of approx. 47 acres from Resort Commercial (RC) and Resort Residential (RR) to Planned Development Housing 2 (PDH-2) for 81 townhouses. | Pre-7/2016 | 5/29/2015 (Applicant has consented to time extension) | PC hearingscheduled 8/21/19 | Livingston |
| R17-0005 | Leon | Team Crucible, LLC | Crucible | 76-A-2 | 6116 Jefferon Davis Hwy | Rezoning of 69.9 acres from Agricultural 2 (A-2) to Industrial 2 (I-2) for the development of a security training facility with a companion SUP application (SUP17-0003). | N/A | 5/5/2017 (Applicant has consented to time extension) | On Hold - per request of applicant | Berkeley |
| R18-0001 | Leon | 2600 SCR, LLC | 2600 Acqua | 23-A-49, 23-A-49B & 23-A-42 | 2618 & 2622 Salem Church Rd | Rezoning of 20.77 acres from Commercial 2 (C-2) & Residential 1 (R-1) to Mixed Use 4 (MU-4) for a multifamily residential community with 12,000 sf commercial. | 2016 | 1/24/2018 (Applicant has consented to time extension) | Comments provided to applicant and meeting held 10/2/18 | Courtland |
| R18-0008 | Leon | ATFD, LLC | Winding Creek | 35-A-8, 35-A-9 | 10300 & 10316 Courthouse Rd | Rezoning of 16 acres from Residential 1 (R-1) to Planned Development Housing 16 (PDH-16) in order to develop an age-restricted community with 22 single family detached houses, 18 single family attached houses, and 215 multi-family units. | 2016 | 5/24/2018 (Applicant consented to time extension) | BOS hearing TBD-Delayed at request of applicant. PC hearing held 5/15/19 and recommend denial, 6-1 | Salem |
| R18-0010 | David | Old Plank Partners, LLC / Arthur and Patricia Tracy Trust | Chancellor Ridge | 21-10-1, 21-10-2 | 7611 & 7613 Old Plank Rd | Rezoning from Rural (Ru) to Planned Development Housing 4 (PDH-4) for development of a single family detached subdivision of 65 lots on 39 acres. | 2016 | 11/5/2018 | Comments provided to applicant 5/22/19 | Chancellor |
| R18-0011 | Shannon | Spotsylvania Courthouse Village II LLC | The Village at Courthouse Commons | 48-A-90 | unaddressed | Rezoning of 3.99 acres from Agricultural 2 (A-2) to Mixed Use 3 (MU-3) for residential development as part of The Village at Courthouse Commons. | 2016 | 1/22/2019 | BOS hearing scheduled 9/10/19. PC hearing held 8/7/19, 6-0 vote to recommend approval | Berkeley |

KEY: TRC - Technical Review Committee meeting
PC - Planning Commission
BOS - Board of Supervisors

Spotsylvania County Planning Department Public Hearing Cases Status Report

| Application # | Lead Staff | Applicant | Project Name | Tax Map # | Address | Description | Proffer Law | Application Complete | Status | Voting District |
|---------------|------------|---|-------------------------------------|---|---|---|-------------|----------------------|---|-----------------|
| R19-0003 | Shannon | USGGB, LLC | Noah's Landing | 24-A-64 | Lafayette Blvd. at end of Marshall Drive and Normandy Ct | Rezoning of 18.5 acres from Residential 1 (R-1) to Planned Development Housing 8 (PDH-8) for 49 single family detached lots and 53 single family attached lots. | 2016 | 3/27/2019 | 2nd review letter sent 7/15/19 | Battlefield |
| R19-0004 | David | Rappahannock Devt. Group, LLC | Harrison Village | 23-A-65 | 5601 Harrison Rd | Rezoning of 24.57 acres from Residential 1 (R-1) to Planned Development Housing 3 (PDH-3) for a 73 single family detached unit subdivision. | 2016 | 4/26/2019 | 3rd review letter sent 7/31/19 | Courtland |
| R19-0005 | Shannon | Harrison Road Partners, LLC | WaWa at Harrison/Salem Church | 23-A-53E | NE corner Harrison Rd and Salem Church Rd | Rezone a 3.411 acre portion of Tax Map 23-A-53E from Commercial 2 (C-2) to C-3 to permit construction of a convenience store and fuel dispensing service. | 2016 | 5/7/2019 | Initial comments provided to applicant 5/30/19 | Courtland |
| R19-0006 | Shannon | Foxcroft Development and The Oaks, LLC | Foxcroft | 36-A-87, 36-A-88, 36-A-89A | 3725, 3737, & 3743 Lee Hill School Dr | Rezone approx. 11.7 acres from Residential 2 (R-2) to Residential 8 (R-8) for 85 townhouses. | 2016 | 6/4/2019 | Initial comments provided to applicant 6/27/19 | Lee Hill |
| R19-0007 | David | Tricord Homes Inc | Village at Crossroads Station | 37-A-48, 49, 50, 52, 52A, 53, 54, 55 | South of Rt 17 between Crossroads Parkway and Thornton Rolling Road | Rezoning request for approximately 115 acres from Rural (Ru), Industrial 1 (I-1), and Commercial 3 (C-3) to Mixed Use (MU-2, MU-3, and MU-4) for 770 single family attached and detached and multifamily residential units | 2016 | 6/17/2019 | Initial comments provided to applicant 7/11/19 | Berkeley |
| R19-0009 | Shannon | Rappahannock Devt. Group, LLC and Sheri L. Kornegay | Lafayette Commons | 24-A-49A, 24-A-57, 24-A-59, 24-A-60, 24-A-61, 24-A-62 | 111 Wakeview Dr., 3103 Lafayette Blvd., and 4 unaddressed properties | Rezoning request for approximately 27.5 acres from Residential 1 (R-1) to Mixed Use 2 & 3 (MU-2 & MU-3) for development of 217 single family attached units and up to 15,257 square feet of commercial space. | 2016 | 7/12/2019 | Initial comments provided to applicant 8/1/2019 | Battlefield |
| R19-0010 | Shannon | KW Commercial LLC and Bonaventure | Aspire at Lees Hill | 36-17-FF | Spotsylvania Ave. between Goodwill and Weis | Rezoning request for approximately 13.69 acres from Commercial 2 & 3 (C-2, C-3) to Mixed Use 4 (MU-4) for an age-restricted development of 64 single family attached units, 146 apartments and a restaurant and additional commercial uses. | 2019 | 7/22/2019 | Under initial review with TRC scheduled 8/15/2019 | Lee Hill |

KEY: TRC - Technical Review Committee meeting
PC - Planning Commission
BOS - Board of Supervisors

Spotsylvania County Planning Department Public Hearing Cases Status Report

| Application # | Lead Staff | Applicant | Project Name | Tax Map # | Address | Description | Proffer Law | Application Complete | Status | Voting District |
|----------------------------|------------|------------------------------------|---|-----------|--------------------------|--|-------------|--|--|-----------------|
| SPECIAL USE PERMITS | | | | | | | | | | |
| SUP17-0003 | Leon | Team Crucible, LLC | Crucible | 76-A-2 | 6116 Jefferson Davis Hwy | Special Use for security training facility (associated with R17-0005) | N/A | 5/5/2017 (applicant has consented to a time extension) | On Hold - per request of applicant | Berkeley |
| SUP18-0008 | Shannon | Omar Abi Faraj | Courthouse Classic Auto | 47-A-70C | 8900 Courthouse Rd | Special Use Permit for a Vehicle sale, rental and ancillary service establishment, small scale, on an existing improved property | N/A | 6/7/2018 (applicant has consented to a time extension to 11/6/19) | PC hearing tentatively scheduled 9/18/19 | Livingston |
| SUP18-0010 | Leon | Zakia Walizada | Vertex Auto Sales and Repair | 23-A-144R | 112 Pegram Ln | Special Use Permit to allow vehicle sales on a parcel less than 2 acres in the Commercial 3 (C-3) zoning district. | N/A | 7/20/2018 | PC hearing tentatively scheduled 9/4/19 | Courtland |
| SUP18-0011 | David | AT&T/Peace United Methodist Church | AT&T Telecommunications Tower at Peace UMC | 23-A-92B | 801 Maple Grove Dr | Special Use Permit for a 105' monopole telecommunications tower with a 4' lightening rod in Residential 1 (R-1) zoning. | N/A | 5/20/2019 | BOS hearing held 8/13/19 and the vote continued to 9/10/19. PC hearing held 7/17/19 and recommend approval 7-0 | Courtland |
| SUP18-0012 | David | AT&T/A Tempo LLC | AT&T Telecommunications Tower at Rt 1 and Mine Rd | 36-17-C | 10601 Spotsylvania Ave | Special Use Permit for a 100' monopole telecommunications tower with a 6' lightening rod in Commercial 2 (C-2) zoning in the Lee's Hill Shopping Center. | N/A | 7/16/2019 | Applicant scheduling a new balloon test the first week of September | Lee Hill |
| SUP19-0001 | Shannon | Mazari Motors | Mazari Motors | 23-A-140 | 1900 Courthouse Rd | Special Use Permit for vehicle sales, small scale in Commercial 3 (C-3) zoning on 1.18 acres. | N/A | 2/4/2019 | BOS approved, 5-2 | Courtland |

KEY: TRC - Technical Review Committee meeting
 PC - Planning Commission
 BOS - Board of Supervisors

Spotsylvania County Planning Department Public Hearing Cases Status Report

| Application # | Lead Staff | Applicant | Project Name | Tax Map # | Address | Description | Proffer Law | Application Complete | Status | Voting District |
|---------------|------------|--------------------------|----------------------|-----------|---------------------|--|-------------|----------------------|-------------------|-----------------|
| SUP19-0002 | Shannon | Virginia Railway Express | VRE Maintenance Yard | 37-A-41E | 9400 Crossroads Pky | Amendment to Conditional Use Permit for Maintenance Yard to add an additional rail siding. | N/A | 4/30/2019 | BOS approved, 7-0 | Berkeley |

KEY: TRC - Technical Review Committee meeting
PC - Planning Commission
BOS - Board of Supervisors

Spotsylvania County
Planning Commission
Executive Summary

 **Print**

Meeting Date: August 21, 2019
Title: Review and Approval of Minutes from August 7, 2019

Type:
Agenda Title: Review and Approval of Minutes from August 7, 2019
Recommendation: Approval
Summary:
Committee/Commission Summary:
Review Date: Status:
Financial Impact:
Staff Contacts: Paulette Mann, Commission Secretary
Legal Counsel:
Additional Background/Other
Considerations:
Consequence of Denial/Inaction:

ATTACHMENTS:

| Name: | Description: | Type: |
|---|---------------------------------|---------|
|  pcmin19_0807.docx | Draft Minutes of August 7, 2019 | Minutes |

Spotsylvania County Planning Commission

DRAFT

Holbert Building Board Room, 9104 Courthouse Road, Spotsylvania VA 22553

MINUTES: August 7, 2019

Call to Order: Mr. Newhouse called the meeting to order at 7:00 p.m.

Members Present:

| | |
|-------------------|-------------|
| Richard Thompson | Courtland |
| Howard Smith | Livingston |
| Jennifer Maddox | Berkeley |
| Michael Medina | Salem |
| C. Travis Bullock | Battlefield |
| Gregg Newhouse | Chancellor |

Members Absent: Mary Lee Carter Lee Hill

Staff Present:

Paulette Mann, Planning Commission Secretary
Wanda Parrish, AICP, Director of Planning
Shannon Fennell, Planner III
Jacob Pastwik, AICP, Planner III
Doug Morgan, CTM, CZA, Transportation Planner
Daniel Cole, Traffic Engineer
Alexandra Spaulding, Senior Assistant County Attorney
Jason Irby, Deputy Fire Chief

Announcements: Ms. Parrish informed the Commission that the Crucible project has been placed on hold to allow the applicant to reexamine their GDP and project. She stated that staff will be bringing rezoning application, Townes at Point Seanna to the August 21, 2019 for public hearing.

Mr. Smith asked that Mr. Loveday from Utilities be present for that meeting.

Review & Approval of minutes:

Motion and vote: Mr. Thompson made a motion, seconded by Mr. Smith to approve the minutes of July 17, 2019. The motion passed 6-0.

Unfinished Business: None

Public Hearing(s):

R18-0011 Spotsylvania Courthouse Village II, LLC: Requests the rezoning of approximately 3.99 acres from Agricultural 2 (A-2) to Mixed Use 3 (MU-3) with proffers for residential development consistent with the surrounding MU-3 zoned parcels. The proposal for residential development currently consists of both single-family attached and detached dwellings and may include any other residential use types permitted in MU-3, except apartments. The parcel is located

at the terminus of Courthouse Commons Boulevard (private), approximately 500 feet east of its intersection with Rosecrans Lane (private). The parcel is located in the Primary Development Boundary. The property is in an area identified as Mixed Use on the Future Land Use Map of the Comprehensive Plan. Tax parcel 48 (A) 90. Berkeley Voting District.

Mr. Newhouse opened the public hearing.

Ms. Fennell presented the case. She advised the Commission that the request is to rezone approximately 3.99 acres from Agricultural 2 (A-2) to Mixed use 3 (MU-3) with proffers for residential development consistent with the surrounding MU-3 zoned parcels. The proposal for residential development consists of both single-family attached and detached and may include other residential use types permitted in MU-3, except apartments. Other residential use types permitted within the MU-3 zoning districts are townhouse buildings.

She advised that staff recommends approval with proffers dated December 19, 2018 and last revised on July 19, 2019, to rezone approximately 3.99 acres from Agricultural 2 (A-2) to Mixed Use 3 (MU-3).

Ms. Fennell displayed a map showing the subject parcel and that it is surrounded on three sides by The Village at Courthouse Commons Subdivision, zoned Mixed Use 3 in July of 2013. Its fourth property line is shared with Plantation Woods Subdivision, zoned R-2 in January of 2016. Rezoning of the subject property will make the zoning of this parcel consistent with the surrounding zoning of the Village at Courthouse Commons. During the planning phases of the Village at Courthouse Commons the developer sought to obtain this approximately 3.99-acre parcel to consolidate with the surrounding 145 acres parcel to be rezoned to MU-3 during the R13-0004 rezoning. However, the property was held by a number of heirs and the developer needed additional time to acquire this tract of land. On August 20, 2018, the title to the subject property was transferred and conveyed to the applicant by a Special Commissioner's Deed. The subject property is located within the Primary Development Boundary and identified as Mixed-Use on the Future Land Use Map of the Comprehensive Plan.

Ms. Fennell displayed an aerial map showing that the subject parcel is wooded and undeveloped. At present, there is no means of access to the subject parcel and it is located approximately 500 feet east of the terminus of Courthouse Commons Boulevard which is private and its intersection with Rosecrans Lane, also private. The applicant will create an access to the subject parcel by means of a private ingress/egress easement across the Applicant's other property in order to connect to the public right-of-way identified as Courthouse Commons Boulevard.

The Generalized Development Plan was displayed and the subject parcel will be a continuation of the development occurring in the Village of Courthouse Commons and consistent with the present construction of the subdivision. The addition of the subject parcel into the overall development will provide for ease in maintaining consistency of the types of residential units included. Integration of the parcel into the overall plan for development will allow for a consistent layout. The parcel will be developed in conformance with the Mixed Use 3 (MU-3) zoning district and the future transportation network will provide private road access which will be determined and evaluated through the site plan review process.

Ms. Fennell discussed the Comprehensive Plan Analysis:

- **Land Use** – The Village at Courthouse Commons proposal is within an area of the County designated for Mixed Use development. A mixed-use land use designation consists of providing for a variety of land uses in a compact, walkable community with a denser development pattern. The subject parcel of this application is currently zoned A-2 and is not consistent with the future intent of the Comprehensive Plan. The requested zoning classification MU-3 is consistent with future intent of the Comprehensive Plan and the zoning of the adjacent parcels. Considering the land use patterns, zoning, and location, the Comprehensive Plan would be supportive of mixed-use type development in this location.
- **Transportation** – According to the proposed General Development Plan the project transportation network will provide private ingress/egress across the applicant's other property to connect to the public right-of-way identified as Courthouse Commons Boulevard. The projected number of daily trips generated is undetermined at this time and will be addressed during the site plan process.
- **Public Facilities** –
 - **Public Schools** – All school aged children residing in this subdivision attends Robert E. Lee Elementary School, Spotsylvania Middle School, and Courtland High School. The addition of the approximately 3.99-acre subject parcel is not intended to increase the total unit count but rather to create a more accommodating layout and mix of unit types. Therefore, the requested rezoning of the subject parcel and any buildout will not place additional burden on the schools, beyond what is currently anticipated by the development of Courthouse Commons Subdivision.
 - **Fire, Rescue, and Emergency Services (FREM)** – The subject parcel is located less than one half mile from Spotsylvania County Fire and Rescue Station #1.
 - **Solid Waste Collection & Disposal** – At the time of site development a description of the methods of solid waste and recycling storage, collection and disposal will be provided in the form of a Solid Waste and Recycling Statement.
 - **Water and Sewer Facilities** – Water and sewer exist within Courthouse Commons Subdivision and shall be available by an extension to the subject parcel.
 - **Library Facilities** – The subject parcel is located approximately 1.5 miles from the Central Rappahannock Regional Library Snow Branch.
 - **Parks and Recreation Facilities** – The current development of Courthouse Commons Subdivision has incorporated a swimming pool, meeting facility, playground area, open space and interconnected walking areas to address the recreational needs of the community. These amenities will be available to the residents of the entire Courthouse Commons development.
 - **Historic Resources** – The development is not expected to have any negative impacts on significant natural, historic, and cultural resources. There are no known natural, historic, and cultural resources associated with the project area.
 - **Natural Resources** – There is no identified Resource Protection Area (RPA) associated with the subject parcel. The subject parcel does contain a small area of wetlands which surrounds an intermittent stream. The applicant's design for development of the subject parcel will be in compliance with County and State

requirements for stormwater management and will be verified at the time of site development.

Ms. Fennel discussed the Proffer Analysis:

The applicant has provided a proffer statement dated December and 19, 2018 (last revised July 19, 2019) for the Planning Commission and Board of Supervisors' consideration. Staff evaluated the proffers according to the parameters established in Code of Virginia, consistency with Comprehensive Plan Levels of Service and identified projects within the County's FY 2019 – FY 2023 Capital Improvements Plan (CIP).

1. **General Development** – The applicant commits to develop the property in conformance MU-3 Ordinance requirements.
2. **Use** – The applicant commits the development shall include single family detached houses and single family attached houses and may also include additional residential unit types as permitted in the MU-3 zoning district except for apartments.
3. **Architectural**- The applicant commits the units constructed on the property will maintain certain architectural treatments in regard to the building exterior, foundation, roof, windows and doors.
4. **Utilities** – The applicant commits that the property will not be served by a pump station.

Staff is supportive of the language of each proffer as proposed, these are “onsite proffers” that address the impacts within the boundaries of the property to be developed and ensures that this infill project resembles the surrounding development.

Ms. Fennel discussed the following findings in favor:

- The proposed development is consistent with the Comprehensive Plan.
- The requested Mixed Use 3 (MU-3) will ensure that the subject parcel is consistent with the Comprehensive Plan and the zoning of the surrounding zoned parcels.
- This will allow the continuation of the Courthouse Commons Section.
- The additional 3.99 acres of MU zoned land will not have significant impacts on public facilities.

She stated that there were no findings against the request.

Based on the proposals consistency with the Comprehensive Plan and the fact that if the subject property had been available when the surrounding parcels were zoned Mixed Use 3 (MU-3) it would have been included in the original Spotsylvania Courthouse Village case; staff recommends approval of R18-0011 with proffers to rezone the approximately 3.99 acres from Agricultural 2 (A-2) to Mixed Use 3 (MU-3).

Applicant, Bill Vakos: He stated that he didn't have a presentation prepared but asks for the Commission's favorable recommendation to the Board of Supervisors as they grow their project.

Speaking in favor or opposition:

Debbie Kindig, Berkeley District: She stated that the road is already overtaxed and the

construction vehicles that are presently using the private road have demolished and broken down the roadway. She stated that the cost shouldn't fall on VDOT to repair the roadway, but the developer. She has concerns about more houses.

Mr. Vakos stated that the uniqueness of MU zoning allows flexibility with the types of units and no unit cap. It is all market driven by what is needed. This request doesn't allow any additional units from the original rezoning but provides them the opportunity for a better layout and planning for the future on the types of units. He agreed that Courthouse Commons Blvd does need some repair and will be taken care of as part of their bond.

Ms. Maddox asked for clarification that no additional houses will occur as part of this rezoning, that it allows for better planning of the development that was already approved with the original rezoning.

Mr. Vakos agreed and stated that is correct.

Mr. Medina inquired about there being no unit cap in Mixed Use.

Ms. Parrish explained that the ordinance does not have a maximum density, the density is constrained by the ordinance standards and the constraints of the land. The development must meet the standards defined by the MU ordinance.

Mr. Newhouse closed the public hearing.

Motion and vote: Ms. Maddox made a motion, seconded by Mr. Smith to recommend approval of the rezoning with proffers. The motion passed 6-0.

Worksession(s):

Update to the Comprehensive Plan's Public Facilities Chapter for Fire, Rescue, and Emergency Management (FREM)

Mr. Pastwik presented the worksession. Planning staff in collaboration with County Fire, Rescue and Emergency Management (FREM) have reviewed and proposed updates to the draft FREM Section of the Comprehensive Plan's Public Facilities Element. The draft amendments were attached in the packets with redline markup format to clearly identify where amendments have been proposed. Jason Irby, Deput Fire Chief with County FREM staff is present during the meeting should technical or operational questions arise.

The draft includes a summary of existing facilities and status of a number of existing services within the County and region. These updates show progress since the last Comprehensive Plan FREM update in 2013.

Considering existing facilities, as part of this update staff has improved depiction of the 5- Mile response zones for existing facilities with use of FireView Software as noted within the Section update. FireView has enabled depiction of response distances based on road miles travelled as

opposed to “as the crow flies” 5-mile buffers around FREM stations. This more accurately depicts underserved areas to help target areas for future service improvements. This improved depiction of response areas has resulted in a reduction in reported county-wide service coverage from 90% of the County to 67% of the County.

Mr. Newhouse stated that he would like to see a map demonstrating the populations served within the each of the fire service areas.

Mr. Thompson inquired whether sPower proffered a firestation.

Ms. Parrish stated a firestation was not part of their approval conditions.

This update also considers and incorporates by reference the George Washington Region Hazard Mitigation Plan (last updated in February, 2018). The Plan is updated on a 5-year cycle with coordination led by the George Washington Regional Commission. The Spotsylvania Board of Supervisors endorsed the current iteration of the Plan in October, 2017. That Plan contains detailed study and recommendations concerning locality specific and regional hazards resulting from flooding, tornadoes, drought, hurricanes, and a variety of other emergencies.

Short term and long term goals are aimed at identifying FREM service and capital facility improvements to improve levels of service. Considerate of the Code of Virginia Sect. 15.2-2232 that links Capital projects additions to the Comprehensive Plan. From 15.2-2232:

...unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than a railroad facility or an underground natural gas or underground electric distribution facility of a public utility as defined in subdivision (b) of § [56-265.1](#) within its certificated service territory, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof.

Staff would like to stress that there are a number of additional FREM related goals and objectives aimed at proactively improving the health, safety and welfare of citizens that would be best located within the Future Land Use Chapter of the Comprehensive Plan. Examples include advocacy for dry hydrant installations where water is nearby in rural areas associated with new development or advocating for backup generators or generator quick connects for critical community facilities in emergency situations at such places as fuel dispensing facilities (gas stations) or supermarkets. The backup power generation goal has already been established as a local priority within the Regional Hazard Mitigation Plan that directs it be included within the Comprehensive Plan going forward. Promotion of underground cisterns in rural areas not in proximity to water have also been identified as beneficial. Staff intends to introduce goals to improve FREM conditions within the community by design as part of the Future Land Use update.

Mr. Smith and Mr. Medina inquired about the ISO rating and if rates are based upon being within 5 miles of a firestation.

Chief Irby stated yes, they are National Standards, not local standards.

Ms. Maddox stated that she is served by the Partlow station and asked for clarification on whether it would be updated or replaced.

Mr. Smith inquired if there are any plans to improve current stations.

Chief Irby stated that there are and that the Partlow station is one of them. He stated that there are two currently included in the CIP and one includes the training center. He explained that they are actively looked for a better location for that station to provide for a better coverage area.

There was discussion about including links associated with the nuclear facility and links provided within the proposed comprehensive plan update.

Mr. Newhouse asked for population overlay be added to the map.

Mr. Pastwik thanked them for their feedback.

Update to the Comprehensive Plan's Transportation Element

Mr. Pastwik presented the worksession. He stated that Doug Morgan and Dan Cole are also present should any questions arise. Planning staff in collaboration with County Transportation professionals have reviewed and proposed updates to the Transportation Element (Chapter 3) of the Comprehensive Plan. The draft amendments are attached in redline markup format to clearly identify where amendments have been proposed. Corresponding new draft maps have also been attached. Due to the Chapter's specialized focus, County Transportation staff will be present during the meeting should technical or operational questions arise. The draft Transportation Element was presented to the Transportation Committee on June 12, 2019.

The Transportation Plan has been reviewed and updated considerate of the Code of Virginia, Section 15.2-2223 (attached for reference) that requires a Transportation Plan be developed as an element of the Comprehensive Plan and address a number of transportation related systems including but not limited to roadways, bicycle and pedestrian accommodation, rail, airports, public transportation, etc. The Transportation Plan must also consider Transportation related information such as the acknowledgement of corridors of statewide significance as outlined in Sect. 15.2-2232 (attached for reference).

The 2013 Transportation Plan had a planning horizon of 2030 and recommended transportation system improvements considering existing conditions and future projected population and traffic impact mitigations necessary by 2030. This update now looks to 2040. County Transportation staff are presently in the process of updating the draft Thoroughfare Plan project list to reflect expected 2040 traffic volumes. Since the last Comprehensive Plan update there have been a number of new roads identified within the Thoroughfare Plan worthy of consideration. The Thoroughfare Plan

Project list and associated map include: Chancellor Road Extension to Route 3; Spotsylvania Pkwy/ Smith Station Extension to Gordon Road; Harrison Road Interchange; Route 606 Service Roads North and South; Market Street Extension; Houser Drive Extension. The Thoroughfare Plan itself has been reformatted to break projects into categories including: New Roads and Extensions; Interstate Projects; Road Widening and other Existing Road Corridor Improvements; Intersection Improvements.

Mr. Pastwik stated that now that we are in 2019, the draft document has been updated to reflect changes in Transportation that have occurred since 2013. This includes removal of now outdated information with more recent information. As part of the staff review of the Transportation Element considering the Code of Virginia, the draft further expands upon and elaborates on the status of rail and air services in the County. These are valuable transportation alternatives to consider. Staff feels prior iterations of the Comprehensive Plan were “light” on those alternatives. With an enhanced focus on Economic Development intended with this Comprehensive Plan update, greater emphasis has been placed on the current state of rail and air and potential opportunities to consider that give insight into development of the Future Land Use Map Economic Development goals. Summaries related to Transportation Alternatives as a whole have been enhanced with this draft to include “real world” reporting on the status of such Alternatives available in the County. Staff also sees value in expanding access to more detailed subject specific information within this iteration of the Comprehensive Plan. A number of new hyperlinks have been proposed to expand the reach and ease of access to information associated with the Transportation Plan. Transportation Plan Goals and Objectives have been generally maintained as part of this update however a number of strategies have been proposed that are aimed at safety, system flow, economic development prospects (considerations related to rail access especially), and identification of priority transportation projects based on scoring to strategically focus efforts to improve the transportation network in the County.

As part of the Comprehensive Plan update process staff has also proposed adding a revised and updated Trailways Master Plan (now in draft) as a Transportation Element sub-Chapter (Chapter 3A). The concept of relocating the 2011 Trailways Master Plan from a standalone plan format to one embedded within the Comprehensive Plan was supported by the Planning Commission when presented as a concept at a prior work session on November 7, 2018 (minutes attached for reference). Planning for bicycle and pedestrian accommodations are also consistent with Transportation Plan requirements as outlined in the Code of Virginia (Section referenced above). The Trailways Master Plan serves dual purposes within the Comprehensive Plan by addressing both road and/or road corridor based improvements (as a Transportation Alternative), as well as identifying greenway systems intended for the purpose of addressing Parks and Recreation Level of Service as established in the draft Parks and Recreation portion of the Public Facilities Element, endorsed by the Parks and Recreation Commission on April 18, 2019. The Trailways Master Plan generally mirrors the network adopted in 2011 but has been updated to reflect road improvement plans associated with an updated Thoroughfare Plan and changes to Greenway routes with the aim of tying more greenway miles to existing planned roadway improvement projects, resulting in less perceived duplication, less intrusive potential property impacts, greater visibility, and exposure to potential commercial spin-off opportunities. Since 2011 a number of conceptual greenway alignments have been able to be more clearly established resulting from development opportunities, road improvement plans, various design and alignment studies. As part of this

update, the draft provides status updates for a number of the planned trailways to highlight various implementation successes since initial Plan adoption. The content of the Plan is meant to “get to the point” and has been streamlined to include a Plan background, descriptions of the scope of the plan, descriptions of the specific greenways and intended user groups, and a map depiction of the network. Road based improvements are linked to the County Thoroughfare Plan improvements and the George Washington Region Bicycle and Pedestrian Plan. Bicycle and Pedestrian Accommodations help project scoring when Transportation funds are applied for. The Draft Chapter 3A and the associated Trailways Master Plan map have been attached.

Mr. Newhouse inquired about the roundabout at Andora.

Mr. Morgan stated that it is still on the books however, no funding has been identified.

Mr. Newhouse inquired about Smart Scale funds and whether we have been successful in getting some of the funding.

Mr. Morgan stated that we have been very successful but the topic before the Commission tonight is not about funding and projects but rather the update to the Comprehensive Plan. He stated that he doesn't want to digress but to stay on topic.

Mr. Newhouse stated that he receives many calls about Andora and would like to have a clear answer to provide the callers.

Mr. Morgan stated that Mr. Newhouse can find the answers to his questions on the County's website within the CIP.

Staff is still working through updates to the Thoroughfare Plan project list, specifically as it relates to forecasting 2040 traffic volumes and level of service. Results of these findings could result in additional recommendations for road improvement projects within the system. Additionally, Planning staff is working with County Utilities analyzing the feasibility of a number of Primary Development expansion requests received from the community. These requests tend to be in close proximity to the existing Primary Development Boundary just north of the Route 3 corridor or to the east of Interstate 95. At this time staff does not foresee significant boundary expansions that would warrant additional change to the Thoroughfare Plan. If expansion areas are approved, the depiction of the Primary Development Boundary would be updated within the Thoroughfare Plan map. A work session focused on the Primary Development Boundary and Future Land Use Element will be held at a future date.

Mr. Smith inquired if there are any proposed improvements to Lawyers Road, Route 601, going to Lake Anna State Park. He stated that 260,000 people visit that park and by noon during the summer, the park closes due to overcapacity and there is no where for people hauling boats and RV's to turn around. No parking signs have been installed, but it is becoming very dangerous with people having to pull into driveways while towing large equipment.

Mr. Morgan stated that he will bring this up to VDOT.

Mr. Smith stated that many of the people that are forced to turn around are out-of-towners that are unfamiliar with the roads.

Mr. Medina stated that inclusion in the comprehensive plan is vital to obtain funding.

Mr. Cole discussed that there is a lot of grant money available but it's important that these items are included in our comprehensive plan so that we move up the list for funding.

Mr. Bullock inquired about Lafayette Blvd and what is proposed for that roadway.

Mr. Pastwik stated that it has been identified as a future four lane road.

Mr. Cole stated that it is being studied but no funding has been set aside for Lafayette Blvd at this time.

Mr. Bullock expressed his frustration with how long this road has been studied and how long the improvements have been necessary.

Mr. Cole explained that it is ranked #20 on the list and #9 out of the unfunded projects. He explained that Smart Scale funding is based on congestion.

Mr. Newhouse inquired about the next steps.

Ms. Parrish stated that the Transportation chapter is at the point where we send the draft document to VDOT for their review to ensure that the edits are consistent with the state transportation plan; VTRANS. This will be done just as soon as Mr. Cole can finish the traffic modeling for 2040.

Mr. Cole stated that he is close to being completed with the project.

Mr. Newhouse stated that he would really like to read the documents for this and have staff come back to them for another worksession. He stated that he believes he will have a lot of questions but advised staff to go ahead and move forward to the VDOT review.

Ms. Parrish encouraged the Commissioners to send specific questions that they may have so staff can focus in on topics to cover. She stated that staff is always willing to meet with Commissioners, two at a time, to answer or address any questions they may have.

Mr. Morgan also advised the Commissioners to feel free to reach out to him with any questions they may have.

Public Comment: None

New Business: None

Adjournment:

Motion and vote: Mr. Smith made a motion, seconded by Mr. Thompson to adjourn. The motion passed 6-0.

The meeting adjourned at approximately 8:20 p.m.

Paulette L. Mann

Date

Spotsylvania County
Planning Commission
Executive Summary

 [Print](#)

Meeting Date: August 21, 2019

Title: R15-0006: (RO15-0006) David Hunter/ Point Seanna
(Livingston District)

Type: Action, Public Hearing

Agenda Title: R15-0006: (RO15-0006) David Hunter/ Point Seanna
(Livingston District)

Recommendation: Staff recommends denial of R15-0006.

Summary: David Hunter request a rezoning of approximately 43.7 acres of 47.0436 acres over two parcels from Residential Resort District (R-R) and Resort Commercial District (R-C) to Planned Development Housing District 2 (PDH-2) with proffers to allow for a maximum of 85 single family attached units known as Point Seanna. Approximately 3.3 acres of Tax Parcel 69-5-B will remain Resort Commercial District (R-C) but will be subject to the proffers. The property is located at 4900 and 4920 Corsair Terrace (private road), which is located on the north side of Courthouse Road (Route 208) approximately 1,880 feet west of the Courthouse Road (Route 208) and Ridge Road (Route 655) intersection. The property is located outside the Primary Development Boundary. The property is identified for Mixed Use development on the Future Land Use Map of the Comprehensive Plan. Tax parcels 69-5-B and 69-5-A5. Livingston Voting District.

Committee/Commission Summary:

Review Date: Status:

Financial Impact: As proposed the project represents a loss of 30 acres of commercially zoned land. The proposal was evaluated in accordance with the 2015 proffer policy. As proposed the project does not fully mitigate impacts to Capital Facilities as suggested in the policy.

Staff Contacts: B. Leon Hughes, AICP, Assistant Director of Planning

Legal Counsel: Alexandra Spaulding, Senior Assistant County Attorney

Additional Background/Other

Considerations:

Consequence of Denial/Inaction:

The properties will retain the current zoning classifications of Resort Commercial and Rural Residential and may be developed in accordance with the corresponding district allowances.

ATTACHMENTS:

| Name: | Description: | Type: |
|---|---|-----------------|
| <input type="checkbox"/> PC_Staff_Report_R15-0006.pdf | Staff Report | Staff Report |
| <input type="checkbox"/> Utilities_Memo.doc | Memo from Utilities | Backup Material |
| <input type="checkbox"/> Application_(only).pdf | Application | Backup Material |
| <input type="checkbox"/> Revised_Applicant_s_Narrative.pdf | Applicant's GDP Narrative | Backup Material |
| <input type="checkbox"/> approved_to_form_proffers.pdf | Applicant's Proffer Statment | Agreement |
| <input type="checkbox"/> approved_to_form_GDP.pdf | Applicant's Generalized Development Plan | GDP |
| <input type="checkbox"/> Market_Study.pdf | Applicant's Market Study | Backup Material |
| <input type="checkbox"/> Water_Supply_Report.pdf | Water Supply Report | Backup Material |
| <input type="checkbox"/> Well_Rate_Testing_Report.pdf | Well Rate Testing Report | Backup Material |
| <input type="checkbox"/> Towns_at_Point_Seanna_Water_System_Prelim_Eng_Report.pdf | Water System Preliminary Engineering Report | Backup Material |
| <input type="checkbox"/> Wastewater_system_PER.1.16.15.pdf | Graphic Waste Water System | Backup Material |
| <input type="checkbox"/> VDH_Letter_10-16-2017.pdf | Virginia Department of Health Letter | Backup Material |
| <input type="checkbox"/> Picture_1.jpg | Picture 1 of W/WW Facility | Backup Material |
| <input type="checkbox"/> Picture_2.jpg | Picture 2 of W/WW Facility | Backup Material |
| <input type="checkbox"/> Picture_3.jpg | Picture 3 of W/WW Facility | Backup Material |
| <input type="checkbox"/> Picture_4.jpg | Picture 4 of W/WW Facility | Backup Material |
| <input type="checkbox"/> Picture_5.jpg | Picture 5 of W/WW Facility | Backup Material |
| <input type="checkbox"/> VDOT_870_Trip_Memo_docs.pdf | Traffic Study Memo | Backup Material |
| <input type="checkbox"/> Cropped_Zoning_Map.jpg | Zoning Map | Maps |



County of Spotsylvania

Department of Planning

Staff Report

Rezoning # R15-0006 (RO15-0006)

(Livingston Voting District)

Planning Commission
August 21, 2019

| | |
|-----------------------------------|--|
| Staff Recommendation: | Denial |
| Project: | R15-0006 (RO15-0006) Point Seanna |
| Owner/Applicant: | David Hunter |
| Request: | The applicant request a rezoning of approximately 47 acres from Resort Commercial (R-C) and Residential Resort (R-R) to Planned Development Housing 2 (PDH-2) for the development of 85 single-family attached units at a density of about 2 units per acre. |
| Tax Map Parcel(s): | 69-5-B and 69-5-A5 |
| Location: | The properties are addressed as 4900 and 4920 Corsair Terrace (private road), which is located on the north side of Courthouse Road (Route 208) approximately 1,880 feet west of the Courthouse Road (Route 208) and Ridge Road (Route 655) intersection. The property is adjacent to the Anna Point Marina and shares an access to Route 208 with the marina and accompanying businesses. |
| Zoning Overlay: | None |
| Future Land Use Designation: | Mixed Use |
| Historic Resources: | None |
| Date Application Deemed Complete: | May 29, 2015 (applicant consented to an extension) |
| Community Meeting: | A community meeting was held on February 9, 2016. Approximately 33 persons were in attendance. Citizens raised concerns about additional marina traffic, additional traffic on the lake, potential |

impacts to the water quality of the lake, if the waste water system will discharge into the lake, who will maintain the system, what happens if the system fails, and the potential negative impacts of additional lights.

Figure 1: Zoning Map

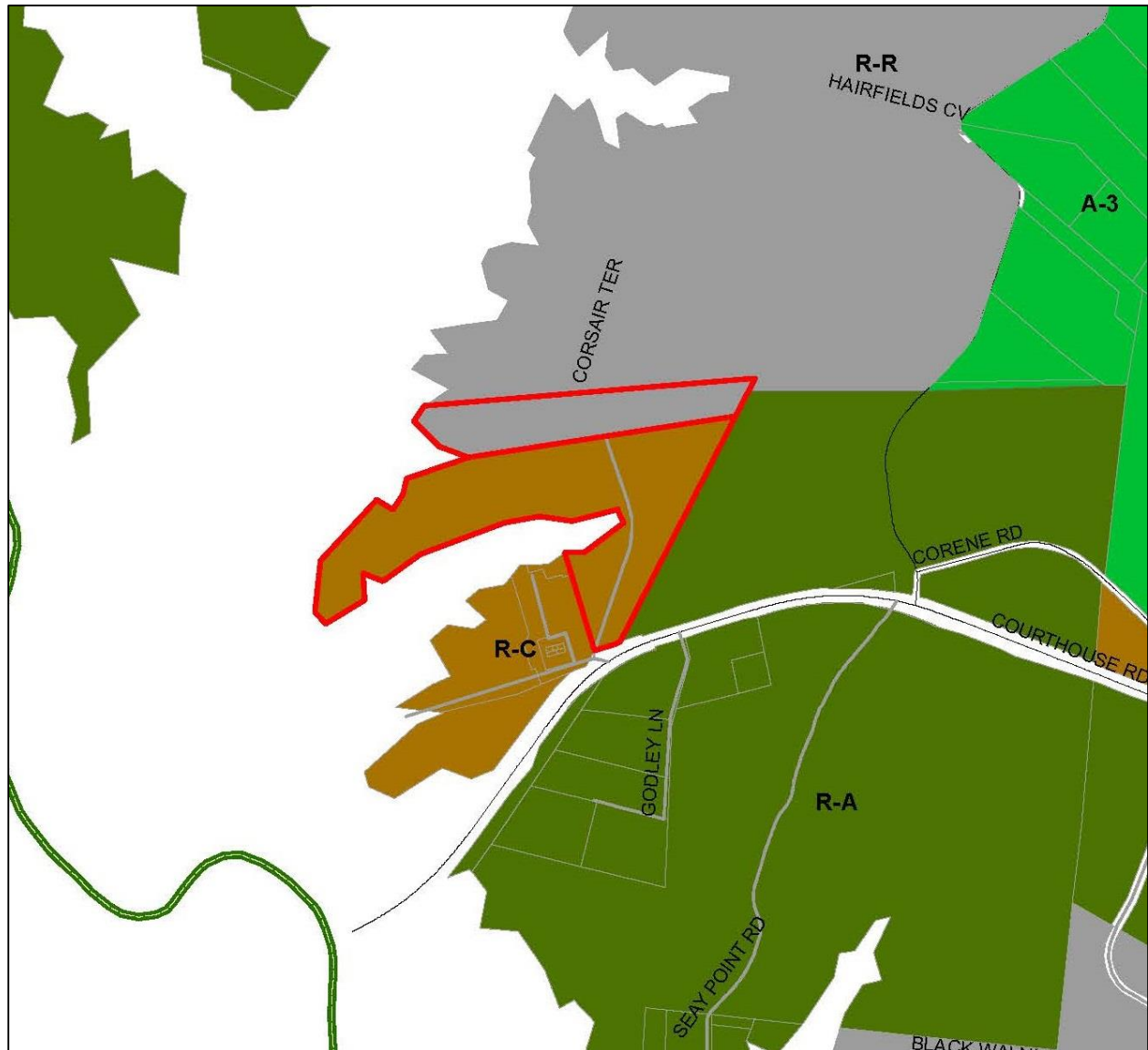
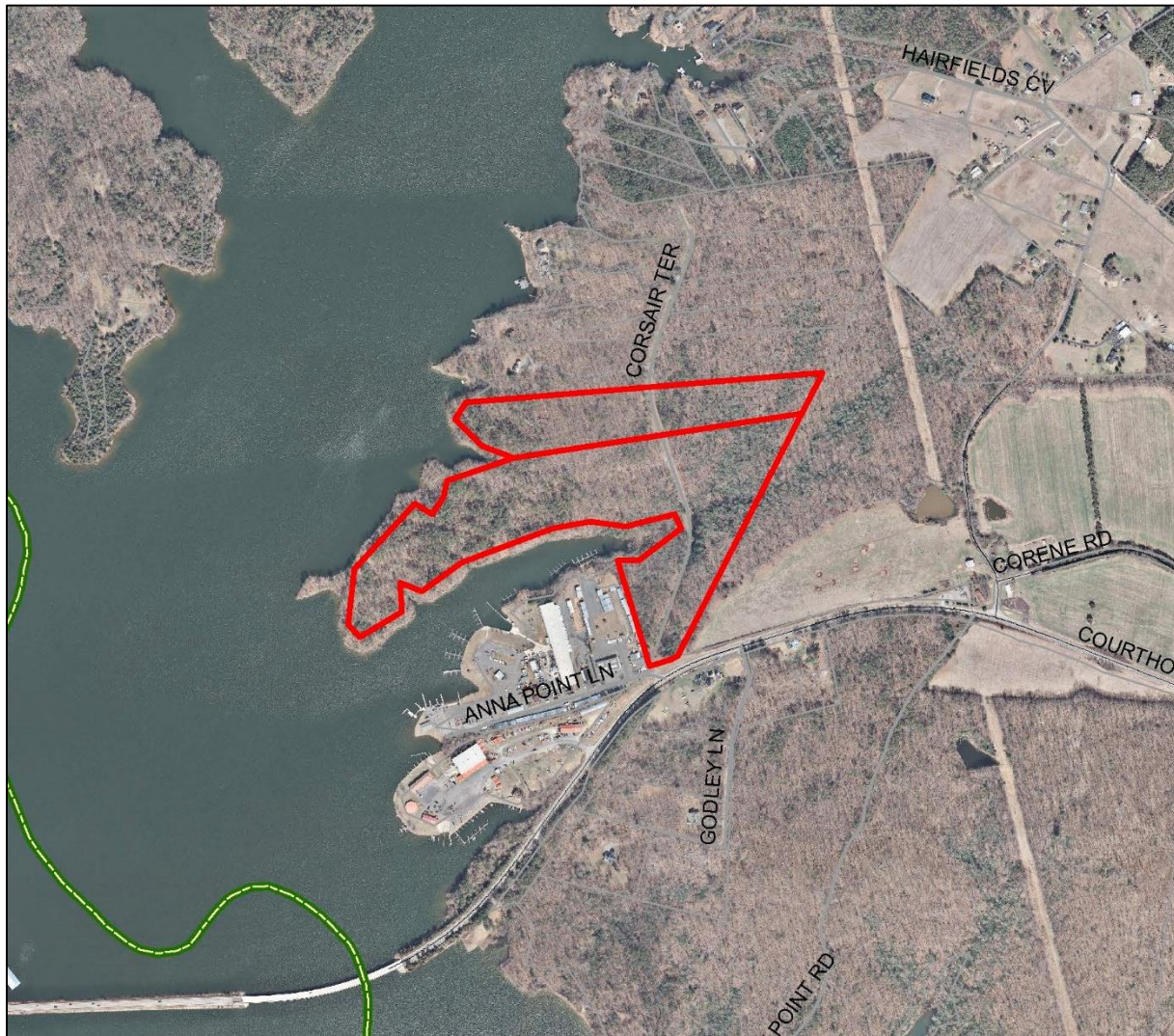


Figure 2: Aerial Map (2017)



I. The Site

The properties subject to the rezoning request are located at 4900 and 4920 Corsair Terrace (private road), which is located on the north side of Courthouse Road (Route 208) approximately 1,880 feet west of the Courthouse Road (Route 208) and Ridge Road (Route 655) intersection. The by-right development potential of the 12.9-acre Residential Resort (R-R) zoned parcel is 6 single-family detached homes under the existing zoning. The 34-acre parcel zoned Resort Commercial (R-C), is adjacent to the Anna Point Marina on the west and north. To the east it shares a boundary of approximately 1,500 feet with a 76-acre parcel that is occupied with a single family home and several farm structures that has several zoning classifications. There are 15 lots to the north of the project that are also accessed via Corsair Terrace. These lots range from 1.5 acres to 13 acres with most of them in the 2-3-acre range. Currently there are only two homes on Corsair Terrace, one of which is owned by the applicant. The Hairfield Subdivision is north of Corsair Terrace but is

accessed elsewhere via Ridge Road. The project is bounded by Lake Anna to the west and will have access to the lake as permitted by Dominion Virginia Power.

The property is outside of the Primary Development Boundary in an area identified for Mixed Use development on the Future Land Use Map of the Comprehensive Plan. This area has historically been identified as a Lake Anna focused “village center” and/or mixed-use area. The 1994, 2002, 2008, and 2013 Comprehensive Plans all speak similarly of a Lake Anna focused “village”. Due to interest in expanding the lakefront and lakeside character of a mixed-use area oriented to the lake, the particular parcels in question were added to the Lake Anna mixed-use area as part of a land use expansion in the 2013 Comprehensive Plan update.

II. Project Proposal

The applicant is the owner of the property and requests to rezone the subject parcels for the development of 85 single-family attached units at a density of about 2 units per acre with a portion of the project retaining the Resort Commercial zoning designation. The project consists of two parcels with a combined acreage of approximately 47 acres. The layout will have 13 units in three buildings adjacent to the lake on the northernmost parcel as well as a water and waste water treatment facility on the east side of Corsair Terrace. The remaining 72 units in 13 buildings will be on the peninsula between Pigeon Run and Shaffers Cove as depicted on the Generalized Development Plan. The 3.3 acres adjacent to Rt. 208 will retain the R-C zoning classification and may be developed with a maximum of 30,000 square feet of commercial space oriented toward the Route 208 corridor.

The applicant is proposing that the project be served by an onsite private water system and waste water system. As a private system outside of the Primary Development Boundary, this system will be regulated by the Commonwealth of Virginia’s Department of Health. The applicant has proffered that both the water system and waste water system will be constructed and maintained to meet the standards set out in the most recent version of the Spotsylvania County Utility Design and Construction Standards Manual (UDCSM) and any future systems that are proposed to be connected to the system will also be constructed to the most recent version of the UDCSM. The Director of Utilities and Public Works, Ben Loveday, has provided a memo which is included in the packet.

- A. Generalized Development Plan (GDP)** – The Point Seanna development will consist of 85 single-family attached units and up to 30,000 square feet of commercial space. The applicant’s Generalized Development Plan shows the property being accessed via realigned Corsair Terrace near its intersection with Route 208. The applicant has proffered via the GDP and proffer statement entrance improvements that will realign Corsair Terrace moving the entrance approximately 140 to the east creating more of a ninety-degree access point at its intersection with Route 208. The applicant is also proposing adding a 200-foot right turn taper for west bound traffic and a 200 x 200 left turn taper and storage lane for east bound traffic on Rt. 208 wanting to enter the site and marina. Included in these improvements, the entrance to the Lake Anna Point Marina will be realigned so marina traffic will access the marina via Corsair Terrace and the improved intersection. The proposed improvements will increase sight visibility of both east and west bound traffic for vehicles exiting Corsair

Terrace. The addition of the left turn lane on Rt. 208 improves safety at the intersection and allows thru traffic to continue unimpeded. The GDP depicts the commercial area being developed near the entrance of the project just off Corsair Terrace. The GDP shows pedestrian accommodations via a trail network that provides access to the commercial area and as an amenity in the development. The trail network also extends to water-oriented amenities proposed including boathouses, possible boat slips, proposed pier and waterside pavilions. The project amenities will include a boat launch and emergency access with a dry hydrant, at least one boat house with covered slips, a pavilion, a decorative fountain, and an amenity area that may include a tot lot, volleyball court, gazebo and possibly a bathhouse and pool. The applicant has also indicated and proffered via the GDP tree preservation areas outside of the Resource Protection Areas adjacent to Lake Anna along Pigeon Run and Shaffers Cove and preservation areas adjacent to the 76 acres to the east. The PDH zoning district requires 30 percent or 13 acres' open space and the GDP indicates the provision of 70 percent or 30 acres of open space. The GDP, on page seven, shows the area for the initial installation of primary drain fields adjacent to the water and waste water facility as well as areas that have been identified for reserve. The GDP indicates that the reserve areas will remain wooded and only be cleared if the area is needed.

- B. Capital Facilities/Fiscal Impact Analysis** – The applicant has provided a proffer statement dated July 15, 2019 for consideration. This case was filed in 2015. Staff evaluated the proffers according to the parameters established in VA Code Section 15.2-2303 for consistency with the Spotsylvania County proffer policy adopted in 2015 and Public Facility Costs identified in the adopted Cash Proffer Policy. The policy identified impacts a rezoning proposal will have on six specific public facility costs, including: Schools; Public Safety & Government; Transportation; Parks and Recreation; Solid Waste; and Libraries. The policy also identified the projected cost needed in each category to support each new residential unit. For Single-Family attached units the projected Cost was \$23,670 per unit. The total contribution identified by the policy to mitigate the impact of the 79 units above the by-right potential of 6 units is \$1,869,930. The applicant is proffering a per unit cash contribution that is consistent with the policy amounts in each public facility category except for the schools category. The applicant contends that the units will be owned and occupied by vacationers and will not contribute students to the school system. There are no restrictions placed on the length of time a unit may be occupied or any other proffer language that may limit a unit from being occupied continually, thus there is no way of determining the potential number of students absent the student generation calculation for single-family attached homes which is indicated in the chart below. The applicant has proffered a per unit cash contribution of \$7,178.00 totaling \$567,602.

| | Point Seanna (85 sfa) | Public Facility Affected | Current Calls / Enrollment | Total Capacity |
|--|--------------------------|-----------------------------|-------------------------------|----------------|
| Population | 190 | | | |
| Estimated Number of Fire & Rescue Calls | 7 | 2 | 826 | 2500 |
| Elementary School Students | | Livingston | 24 | 69 |
| Middle School Students | | Post Oak | 10 | 241 |
| High School Students | | Spotsylvania | 12 | 292 |

| | |
|--|---------------|
| County Estimated Capital Facilities Impact (\$23,670/sfa unit) | \$1,869,930 |
| Applicant's Proposed Mitigation | \$567,062 |
| Difference | (\$1,302,868) |

C. Proffer Statement Summary- Below is an itemized list of the submitted proffers including a summary and staff's analysis in italics.

- 1. General Development Plan** – The applicant has proffered that the project will be developed in conformance with the Generalized Development Plan(GDP) titled Point Seanna Generalized Development Plan/Master Zoning Plan dated May 22, 2015 last revised July 1, 2019. The proffer statement also commits to limits of clearing as shown on sheets 7 and 10 of the Generalized Development Plan.
- 2. Use** – The applicant's proffers limit the number of residential units to no more than 85 single-family attached units and a maximum of 30,000 square feet of commercial development as shown on the GDP.
- 3. Transportation** – The applicant has proffered to dedicate approximately 75 feet of right-of-way along the property frontage on Courthouse Road as shown on the GDP. The proffer statement also commits to improvements on Courthouse Road to include the installation of a 200' right turn taper, a left turn lane with a 200' taper and 200' storage lane. Corsair Terrace will be relocated approximately 140' east and the entrance widened to 26' extending to the entrance into the development. Anna Point Lane will be redesigned so marina traffic will have to access Courthouse Road via Corsair Terrace.
- 4. Environment** – The applicant's proffers commit pedestrian trails, a dry hydrant, and a private boat ramp to be maintained by the Homeowners Association in perpetuity in a condition to guarantee adequate access for Fire, Rescue and Emergency Management (FREM) as determined by FREM and the dry hydrant shall be installed at the time of the issuance of the first building permit for the first row of townhomes.

5. Amenities – The applicant’s proffer statement commits to providing: trails, one or more covered boathouses/covered slips; a decorative water fountain at one or both locations as shown on the GDP; a pavilion/gazebo at one or both locations as shown on the GDP; and an amenity area containing at least one or several recreational facilities such as an informal play area, gazebo/shade structure, tot lot, volley ball court and or bathhouse with a pool. The boat ramp will be constructed upon issuance of an occupancy permit for the first townhome. At least one covered boathouse will be constructed prior to issuance of an occupancy permit for the 43rd unit. The trails and other amenities will be completed prior to bond release.

6. Escalator/De-escalator – The proffers include an escalator/de-escalator clause.

7. Water and Wastewater Treatment System – The applicant’s proffer statement commits that the water and wastewater treatment system will be constructed, and maintained to the standards of the most recent version of the Spotsylvania County Utility Design and Construction Standards Manual (SUDCSM), the submission of design, infrastructure management plan, to show compliance with the SUDCSM. The proffers also commit that any expansion of the system must comply with the requirements of VA Code 15.2-2126-15.2-2130 and shall evidence necessary access and maintenance easements across all adjoining properties where extensions are to occur at the time of the proposed extensions to the County. The proffers also commit the any system that connects to the system must be constructed of the SUDCSM standards or system will not be allowed to connect.

III. Staff Analysis

A. Comprehensive Plan

1. Land Use – On balance, the Towns at Point Seanna proposal meets the intent of the Mixed Land Use designation outside of the Primary Development Boundary. This project is oriented towards Lake Anna and envisioned as a vacationer’s destination. Staff acknowledges the proposal would result in a project ultimately less consistent with Comprehensive Plan Mixed Land Use Policy #7 that advocates for provision of local shopping and professional services as well as tourist related uses such as hotels, inns and restaurants. The Policy does not specifically encourage or discourage residential type development. The residential portion of this project could more firmly be interpreted as a tourist related use if parameters were clearly in place to assure the units would be occupied by the tourism and secondary vacation home market. At present there are no assurances that will be the case. The commercial component of this project resulting in up to 30,000 sq. ft. commercial development could complement Policy #7. However, on balance, the commercial focus of this project is subordinate to the single family attached portion of the project, and the rezoning results in the reduction of commercial potential by over 30 acres. Though the commercial site proposed in the GDP is considered beneficial and more favorable than a solely residential one, the ability of the site to be developed and site for employment and tourism opportunities such as shopping, professional services, hotels, inns, restaurants is effectively scaled back as a result of reduced Resort Commercial (R-C)

zoned acreage in exchange for a PDH single family attached development. The proposal complements the goal to provide a mix of units in support of a diverse housing mix with a range of housing sizes and types that meet the needs of citizens throughout all stages of life and income levels. New townhome communities are popular first time homebuyer products offering more modern finishes and amenities at market rate prices more affordable to that market segment. Comparable townhome communities referenced in the provided market study range from approximately \$270,000 to \$420,000. The project includes a number of amenities aimed at future residents complementary of its Lake Anna oriented theme and provision of community amenities including (by proffer): recreational trail system; one or more boat houses/ covered slips; boat ramp; decorative water fountains; pavilion/ gazebo; recreational amenity area. Approximately 70% of the site will remain as open space and Resource Protection Areas (RPA's) are being preserved in their natural state but for specific project amenities as shown on the GDP and noted in the GDP narrative. Extensive areas of tree preservation have been designated within the GDP including areas within and outside the limits of RPA.

2. Transportation – The applicant has proffered entrance improvements that will realign Corsair Terrace moving the entrance approximately 140 to the east creating more of a ninety-degree access point at its intersection with Route 208. The applicant is also proposing adding a 200 foot right turn taper for west bound traffic and a 200x200 left turn taper and storage lane for east bound traffic on Rt. 208 wanting to enter the site and marina. Included in these improvements the entrance to the Lake Anna Point Marina will have realigned so marina traffic will access the marina via Corsair Terrace and the improved intersection. The proposed improvements will increase sight visibility of both east and west bound traffic for vehicles exiting Corsair Terrace. The addition of the left turn lane on Rt. 208 improves safety at the intersection and allows thru traffic to continue unimpeded. The Spotsylvania Count Sheriff's Department has provided accident data for the eight-year period between 2013-2018 that shows there were eight reported accidents at this intersection, which included one fatality. The proposed improvements will enhance safety for the new residents and motorist passing by the entrance. The County Transportation Engineer has verified that traffic generation resulting from the Towns at Point Seanna project is not significant enough to degrade the level of service. The traffic model currently estimates an acceptable LoS (B in the PM peak hour and C in the AM peak hour). If approved, Towns at Point Seanna is expected to generate less traffic compared to the by-right potential associated with existing Resort Commercial (R-C) and Rural Residential (R-R). Additionally, VDOT has completed their review of this rezoning request and has issued an approval letter with no additional comments at this time.

3. Public Facilities

- a) **Public Schools** – The project proffer statement notes no school related proffer due to expected minimal impact upon school facilities due to the townhomes proposed being Lake Anna associated vacation homes. Staff identified one comparable townhome project on the Louisa County side of Lake Anna. In June, 2018 a Louisa County school's representative was able to confirm the townhome community there generated 2 students. There are approximately 50 townhome units associated with

that lakefront development also located near the Route 208 corridor. Staff notes that school's impacts may be negligible and not exceed the by-right potential of 6 by-right lots ($6 \text{ SFD} \times \text{Proffer Policy Student Generation Rate } 0.572 = 3.4$) should the project build and sell as envisioned as vacation homes exclusively. However, no conditions are in place to clearly assure such units will be occupied exclusively by the vacation housing market. Considering this, the project does not sufficiently address schools impacts consistent with the County proffer policy.

- b) **Fire, Rescue, and Emergency Services (FREM)** – The FREM boat responded to 27 calls for service during the last 12 months. The first response station Company 2, which is five miles east on Rt. 208 responded to 826 calls between July 1, 2017 and June 30, 2018. It is estimated this proposal will generate 7 calls annually.
 - c) **Sheriff** – Reported eight accidents between 2013-2018, with one fatality.
 - d) **Water and Sewer Facilities** – The project is outside of the Primary Development Boundary and the applicant is proposing the use of a privately operated water and wastewater treatment facility with a mass drain field system. This system will not be regulated by the Spotsylvania County Utilities Department as oversight and regulation of private systems is by several agencies of the Commonwealth of VA., the Virginia Department of Health, and the State Corporation Commission. The applicant's proffers note the facility must be constructed to the standards of the Spotsylvania County Utility Department Design and Construction Manual and if at any point in the future a system proposed to connect to the Point Seanna System it to must be designed to the SCUDCSM. The Spotsylvania County Health Department has provided a letter that notes the soils on the parcels are suitable to support onsite sewage disposal systems. Spotsylvania County does have some experience with private sewage disposal systems that indicates that these systems have the potential to have issues in the out years of their life span that may become the responsibility of the County to support and make viable. Ben Loveday, the Director of Utilities and Public Works, has provided a memo which is enclosed that speaks to concerns related to private water and waste water systems.
4. **Historic Resources** – This project is not detrimental to historic resources of local, state, or national significance.
5. **Natural Resources** – A study conducted in May, 2017 determined that there are two sites available to provide necessary wells to serve the project and provided redundancy and were “reliable producers capable of much higher yields”. The applicant is proposing to maintain additional buffer areas in addition to the RPA adjacent to the lake. A concern is the long term effect of maintaining the landscaped area in the project and the introduction over a number of years of additional nitrogen and phosphorus and it leaching into the lake.

The applicant hired a consultant to conduct a preliminary evaluation to determine the water supply potential based on existing information and a site visit. The study states: “The preliminary evaluation based on non-stereoscopic fracture trace analysis, examination of

existing geologic mapping, a review of previous studies in the area, an analysis of well information using federal databases, and a site visit; indicate that the site has a strong likelihood of finding sufficient water to meet demands”. The report is included in the packet.

IV. Findings

In Favor:

1. The project is consistent with several goals of the Comprehensive Plan.
2. The applicant is proposing transportation improvements that will improve the network beyond what is required for their development. The proposed left turn lane and right turn taper will allow passby traffic to continue unimpeded through the intersection and provide storage for vehicles towing trailers. The relocation of Corsair Terrace will improve the sight distance in both the east and west direction for vehicles exiting onto Rt. 208.
3. The applicant has proffered cash contributions to offset the impacts of the development on public safety and general government, transportation, parks and recreation, solid waste, and libraries.

Against:

1. While the project does not include any mitigation for impacts on schools, no commitment is made to ensure the 85 townhouses will develop as vacation homes.
2. The rezoning will result in the reduction of Resort Commercial zoning in the Lake Anna area by over 30 acres, which is approximately 11% of R-C zoned land.
3. This case presents the potential that the County may at some point have to step in and take over a private water and waste water facility that has failed if the owner/operator is no longer available to be responsible and the funds set aside are not sufficient to repair the system.
4. The removal of a large area of tree vegetation in close proximity to the lake has the potential over a number of years to increase the amount of nitrogen and phosphorus into the lake ecosystem.
5. Although the Comprehensive Plan identifies this area as appropriate for Mixed Use development, the density of this proposal may be too great for the area at this time considering the lack of public water and sewer infrastructure.

V. Conclusions & Recommendations

The introduction of housing development with a commercial component at Lake Anna is generally consistent with the adopted Comprehensive Plan. Staff acknowledges the reduction in R-C zoned acreage does effectively reduce the commercial potential for the site. The proposal would be strengthened with a commitment limiting the single-family attached units to use as secondary or vacation homes to be more consistent with tourism goals and reduce concerns related to potential student generation. The introduction of a resort style home ownership opportunity presents the possibility of many benefits to the local community and County. The applicant has designed a project with proffered improvements that will improve the transportation network, and has the potential to spur economic activity on the Spotsylvania County side of Lake Anna. The project design attempts to mitigate visual impacts on the surrounding community by locating the

commercial portion of the project almost 400 feet back from Rt. 208 and the townhomes approximately 1,200 feet from Rt. 208 screened from the corridor with the preservation of mature trees. The project includes amenities that will allow it to be an active community that accommodates all ages and activity abilities. For many years the Comprehensive Plan has advocated and supported development that is driven by the lake and supported by the lake activities. The Comprehensive Plan does not specify the appropriate level of density and the appropriate rate for increased density near the lake. This application raises the issue of the willingness of the County to accept the uncertainty that comes with approval of private water and waste water facilities, as this is the only means of supporting a development of this type in this area. The extension of public utilities to this area is cost prohibitive and the County has recent history with having to take over private systems at significant expense. The possibility of taking over a system will not be an issue in the near future, but many years into the future with only the hope that recent changes in the approval process managed by the Commonwealth are sufficient to prevent the worst case event of the County having to step in and become the owner of a system that has failed. The significance of this possibility is that if this case is approved and others follow the County is likely committing itself to develop a utility master plan with a funding source for implementation that will address the sustainability of these private systems that allow significant development to occur near Lake Anna. There are significant amounts of undeveloped land in the vicinity of the subject parcels that provide for significant development potential if approved with private systems.

Given the Findings against, staff recommends denial of R15-0006.

VI. Policy Question:

1. Is higher density residential development at Lake Anna in the Mixed Use Land Use area appropriate considering the lack of public water and sewer and the concerns related to the maintenance of private systems in the future?

Spotsylvania County Government

Appendix A

Comprehensive Plan Analysis

APPENDIX A

R15-0006: The Towns at Point Seanna

The Spotsylvania County Comprehensive Plan presents a long range land use vision for the County. The Comprehensive Plan sets forth principles, goals, policies, and implementation techniques that will guide the development activity within the County and promote, preserve, and protect the health, safety, and general welfare of its citizens. Specifically, the Plan provides data and analysis on land use, transportation, housing, natural and historic resources, and public facilities and utilities. The purpose of this document is not to regulate, but rather guide land use, transportation, and infrastructure decisions. This guidance seeks to ensure continued economic and community vitality while ensuring necessary policies and infrastructure are in place to provide for the continuation of quality services to Spotsylvania's residents and businesses.

The Towns at Point Seanna rezoning proposes a change in zoning from Resort Commercial (R-C) and Residential Resort (R-R) to Planned Development Housing (PDH-2) in order to construct no more than eighty-five (85) single family attached dwellings and a maximum of 30,000 sq. ft. of commercial development. The Towns at Point Seanna proposal is located well outside of the Primary Development Boundary in an area designated as Mixed Land Use as depicted on the Future Land Use Map. This project is located in an area that historically has been identified as a Lake Anna focused "village center" and/or mixed use area. The 1994, 2002, 2008, and 2013 Comprehensive Plans all speak similarly of a Lake Anna focused "village". Due to interest in expanding the lakefront and lakeside character of the Lake Anna mixed use area, the particular parcels in question were added to the Lake Anna mixed use area as part of a land use expansion in the 2013 Comprehensive Plan update. As per the presently adopted Spotsylvania County Comprehensive Plan Future Land Use element, mixed land use communities should serve as a place for Spotsylvania residents to live, work, shop, and play by providing for a variety of land uses in a compact, walkable community with a denser development pattern. The mixed land use designation encompasses a variety of uses, including traditional neighborhoods; higher density residential; non-traditional residential; commercial uses; light industrial; educational facilities; recreation facilities, and compatible public and other civic facilities. In regard to the Lake Anna mixed use area, Comprehensive Plan Mixed Land Use Policy #7 advocates for provision of local shopping and professional services as well as tourist related uses such as hotels, inns and restaurants. The Policy does not specifically encourage or discourage residential type development. The residential portion of this project could more firmly be interpreted as a tourism related use if parameters were clearly in place to assure the units would be gauged toward and occupied by the tourism and secondary vacation home market. At present there are no assurances that will be the case. A timeshare resort model operated as a business tasked with operating the grounds and supportive facilities would be more favorable than a private homeowner led HOA model. As a type of resort, such a project would be more akin to a hotel, lodging type operation. The commercial component of this project resulting in up to 30,000 sq. ft. commercial development could complement Policy #7. However, on balance, the commercial focus of this project is subordinate to the single family attached portion of the project. Though the commercial site proposed in the GDP is considered beneficial and more favorable than a solely residential one, the ability of the site to be developed and site for employment and tourism opportunities such as shopping, professional services, hotels, inns, restaurants is effectively scaled back as a result of reduced Resort Commercial (R-C) zoned acreage in exchange for PDH single family attached development. This rezoning request would reduce the inventory of Resort Commercial Acreage

by 30 acres. This would result in an 11% reduction in the total number of R-C acreage within the County that currently stands at approximately 276 acres. R-C zoned acreage only exists presently, and is intended for the Lake Anna area. The Lake Anna mixed use area as noted above is outside of the County designated Primary Development Boundary. As a result, the area lacks public water and sewer service whereby development proposals are limited to private systems. Presently such systems are the only option for development proposed in the area. A collection of private residences reliant on a private collective water and sewer system poses major concerns to the long term implications of system failure upon future residents and the County.

After conducting an analysis of applicable Comprehensive Plan Goals, staff has identified application strengths, deficiencies, and policy concerns worthy of consideration as outlined in the Comprehensive Plan policy analysis below:

Introduction and Vision:

Guiding Principles and Policies A. Spotsylvania County is a “business friendly” community and local job creation is a priority. Proposal is business friendly, helping support tradesmen and suppliers throughout the construction phase. Following construction, once occupancy occurs additional residents in the area inevitably will help support commerce demand for goods and services, supporting business and employment. The project also provides up to 30,000 sq. ft. commercial space for commercial establishments offering employment opportunities near the Route 208 corridor.

Staff acknowledges though that the commercial potential of the land proposed as part of this rezoning has been reduced in favor of a development proposal whose primary use is residential. The bulk of the 47-acre project area (approximately 33 acres associated with TM 69-5-B) is presently zoned Resort Commercial (R-C) allowing for a variety of by-right commercial type uses. This proposal ultimately scales back the commercial viability of the site to a single commercial pad site as per project GDP intended for a 30,000 sq. ft. commercial structure. This rezoning request would reduce the inventory of Resort Commercial Acreage by 30 acres. This would result in an 11% reduction in the total number of R-C acreage within the County that currently stands at approximately 276 acres. R-C zoned acreage only exists presently, and is intended for the Lake Anna area. The proposed PDH zoning ultimately is necessary to enable the ability for townhome type development and greater residential density onsite. Though the commercial site proposed in the GDP is considered beneficial, the ability of the site to be developed and site for employment opportunities is effectively scaled back. The residential component has short term construction employment related benefits and ultimately helps supports existing and future area businesses as a spin-off effect. Assuming the homes are sold as vacation homes the project also would have the ability to bring out of locality dollars into the County similar to revenues generated from tourism. The residential portion of this project could more firmly be interpreted as a tourist related use if parameters were clearly in place to assure the units would be gauged and occupied by the tourism and secondary vacation home market. At present there are no assurances that will be the case.

Guiding Principles and Policies B.3. Development projects seeking increased residential density and/or non-residential intensity should address its impacts on the infrastructure of the county. The Towns at Point Seanna project was submitted for County review prior to July 1, 2016 and is subject to review consistent with the County’s prior proffer policy. The proposal considers and mitigates impacts upon public facility demands and public infrastructure consistent

with the County's 2015 proffer policy in all categories except for schools where zero mitigation is proposed. As per proffer policy, "Circumstances may warrant deviation from the Public Facility Cost categories and/or calculations. It is the applicant's responsibility to make the case why a proposal warrants deviation from the Public Facility Costs calculation."

The project proffer notes no school related proffer due to expected minimal impact upon school facilities due to the townhomes proposed being Lake Anna associated vacation homes. Staff identified one comparable townhome project on the Louisa County side of Lake Anna. In June, 2018 a Louisa County school's representative was able to confirm the townhome community there generated 2 students. There are approximately 50 townhome units associated with that lakefront development also located near the Route 208 corridor. Staff notes that schools' impacts may be negligible and not exceed the by-right potential of 6 by-right lots ($6 \text{ SFD} \times \text{Proffer Policy Student Generation Rate } 0.572 = 3.4$) should the project build and sell as envisioned as vacation homes exclusively. However, the County proffer policy makes no accommodation for vacation homes and no conditions are in place to clearly assure such units will be occupied exclusively by the vacation housing market. Considering this, the project does not sufficiently address schools impacts consistent with the County proffer policy.

Guiding Principles and Policies B.3.a. The County should support alternative onsite transportation alternatives and recreational options such as transit, pedestrian and bicycle facilities that are able to, or will, connect to neighboring properties. As depicted on the project GDP the Towns at Point Seanna project is complemented with a system of walking trails throughout the project area and connecting the commercial and residential components of this project. Boat accessibility is also provided with the commitment of a boat ramp and one or more covered boathouses/ covered slips as per project proffer.

Through GDP revision proposed by the applicant the project now includes Courthouse Road bike/ped friendly frontage improvements. Considering the mixed land use designation that promotes pedestrian connectivity and recent precedent with other Courthouse Road fronting projects in the area (Dollar General near Rt. 208 and Lawyers Rd) whose GDP includes a shared use path along Courthouse Road, staff sought similar frontage improvements along the Route 208 frontage associated with this project. Albeit a small frontage, as the system develops over time this frontage becomes a completed connection point for a connected network along the mixed use area along the Route 208 corridor.

Guiding Principles and Policies B.4. Preserve significant natural, historic, and cultural resources of the County to ensure the continued allure of the County as a tourism destination.

This project is located within the Lake Anna Corridor Economic Development Tourism Zone. The Tourism Zone Program is meant for Business whose primary purpose is to establish a desirable destination to attract tourists from outside of the community and create an environment for those visitors that will deliver a memorable experience or promote educational opportunities while increasing travel-related revenue. The residential component of this project that reduces the Resort Commercial (R-C) land inventory within the Zone reduces the program's reach and/or applicability to this site and the Lake Anna Tourism Zone as a whole. For this project the tourism draw is Lake Anna scenery and recreation. The applicant believes the townhomes proposed will be utilized as vacation homes. Should units be occupied as vacation homes they would complement tourism in the Lake Anna area and provide additional support for commercial establishments in the area. As noted elsewhere in this analysis at present there are no assurances that units will be

gauged toward and occupied by the secondary home/ vacation home market. A timeshare resort model operated as a business tasked with operating the grounds and supportive facilities would be more favorable than a private homeowner led HOA model. As a type of resort, such a project would be more akin to a hotel, lodging type operation. Otherwise there are no significant historic, cultural, or natural resources associated with the property that would have tourism value.

Guiding Principles and Policies C. Spotsylvania County is a family friendly community.

Guiding Principles and Policies C.1. The County should support a diverse housing inventory, providing a mix of units that can accommodate housing needs for all stages of life. This would involve a range of housing from affordable units for young families just entering the housing market in the form of condominiums, townhouses, and small single family homes to larger homes, and active adult and assisted care facilities. Guiding Principles and Policies C.2. The County should support mixed use communities with varied housing types, civic buildings, shops, and active and passive recreation opportunities. The Proposal complements goals to provide a mix of units (throughout the County) in support of growing a diverse housing stock to accommodate housing needs for all stages of life and affordability. This project is expected to contribute to the mixed use land use designation considering the larger mixed use vision for the area. Though scaled back in potential land area for resort commercial development, the project does provide accommodation of up to 30,000 sq. ft. commercial.

Guiding Principles and Policies E.1. Protect environmental quality by promoting a comprehensive approach to air and water quality management. Examples of approaches to accomplish this could include: green space and tree preservation, stream restoration, and low impact development (LID). A health department review of the proposed onsite sewage disposal system has verified soil and site suitability. Approximately 70% of the site will remain as open space and Resource Protection Areas (RPA's) are being preserved in their natural state but for specific project amenities as shown on the GDP and noted in the GDP narrative. The open space provided greatly exceeds requirements. Extensive areas of tree preservation have been designated within the GDP including areas within and outside the limits of RPA. Additional roadside street tree plantings have also been depicted throughout the development area. Water quality protections and storm water management will be subject to environmental regulations enforced via project review post rezoning. A potential concern is the long term effect of maintaining the landscaped area in the project may have on the lake by introduction over a number of years of additional nitrogen and phosphorus leaching into the lake resulting from fertilizer selection and application.

Future Land Use:

Future Land Use Map. On balance, the Towns at Point Seanna proposal meets the intent of the Mixed Land Use designation outside of the Primary Development Boundary. Staff acknowledges the proposal would result in a project ultimately less consistent with Comprehensive Plan Mixed Land Use Policy #7 that advocates for provision of local shopping and professional services as well as tourist related uses such as hotels, inns and restaurants. The Policy does not specifically encourage or discourage residential type development. The residential portion of this project could more firmly be interpreted as a tourist related use if parameters were clearly in place to assure the units would be gauged and occupied by the tourism and secondary vacation home market. At

present there are no assurances that will be the case. Though the commercial site proposed in the GDP is considered beneficial, the ability of the site to be developed and site for employment opportunities such as shopping, professional services, hotels, inns, restaurants) is effectively scaled back. This rezoning request would reduce the inventory of Resort Commercial Acreage by 30 acres. This would result in an 11% reduction in the total number of R-C acreage within the County that currently stands at approximately 276 acres. R-C zoned acreage only exists presently, and is intended for the Lake Anna area.

Land Use Policies Applicable to All Land Uses 1. Rezoning proposals should address impacts that are specifically attributable to the development. The Towns at Point Seanna project was submitted for County review prior to July 1, 2016 and is subject to review consistent with the County's prior proffer policy. The proposal considers and mitigates impacts upon public facility demands and public infrastructure consistent with the County's 2015 proffer policy in all categories except for schools where zero mitigation is proposed. As per proffer policy, "Circumstances may warrant deviation from the Public Facility Cost categories and/or calculations. It is the applicant's responsibility to make the case why a proposal warrants deviation from the Public Facility Costs calculation."

The project proffer notes no school related proffer due to expected minimal impact upon school facilities due to the townhomes proposed being Lake Anna associated vacation homes. Staff identified one comparable townhome project on the Louisa County side of Lake Anna. In June, 2018 a Louisa County school's representative was able to confirm the townhome community there generated 2 students. There are approximately 50 townhome units associated with that lakefront development also located near the Route 208 corridor. Staff notes that schools' impacts may be negligible and not exceed the by-right potential of 6 by-right lots ($6 \text{ SFD} \times \text{Proffer Policy Student Generation Rate } 0.572 = 3.4$) should the project build and sell as envisioned as vacation homes exclusively. However, the County proffer policy makes no accommodation for vacation homes and no conditions are in place to clearly assure such units will be occupied exclusively by the vacation housing market. Considering this, the project does not sufficiently address schools impacts consistent with the County proffer policy.

Land Use Policies Applicable to All Land Uses 3. Wherever possible, existing trees and tree buffers should be preserved rather than replacing mature vegetation with new plantings. Extensive areas of tree preservation have been designated within the GDP (especially along project periphery) including areas within and outside the limits of RPA.

Land Use Policies Applicable to All Land Uses 8. Redevelopment and investment in existing developed areas should be encouraged provided that the development does not adversely impact adjoining properties. The area where this project is located is not heavily developed however there are adjacent properties to consider. The project's development footprint is generally separated from adjacent developed areas and housing via distance, water, tree preservation buffers and large open space areas, some of which have been reserved as drain field locations. The commercial component of the project is well sited in close proximity to commercial development associated with Ann Point Marina. Townhomes are located along a peninsula extending into Lake Anna. Extensive tree preservation areas have been located along much of the project periphery, acting as screening and maintaining some of the existing natural character established onsite presently.

Considering project location outside of the Primary Development Boundary will require well water and septic systems, a groundwater assessment was warranted to determine availability and capacity to handle added demands in the area. A preliminary groundwater assessment report was provided that concludes “the site is considered to be favorable for producing the required volumes of water...” based on a number of factors. The study acknowledges a more detailed study of nearby wells, additional remote sensing and fracture trace analysis and on-site geophysical surveying would be warranted to identify exact drilling sites. As noted in the project narrative, a subsequent study conducted in May, 2017 determined that the two necessary wells to serve the project and provided redundancy were “reliable producers capable of much higher yields”.

The Virginia Department of Health has deemed the project as suitable for onsite septic service.

Mixed Land Use Policies 1. Mixed land use developments should display characteristics that provide a unique sense of place (examples could include: design guidelines, architectural features, or common color palette, among others). This project is oriented towards Lake Anna and envisioned as a vacationer’s destination. The project includes a number of amenities aimed at future residents complementary of its Lake Anna oriented theme and provision of community amenities including (by proffer): recreational trail system; one or more boat houses/ covered slips; boat ramp; decorative water fountains; pavilion/ gazebo; recreational amenity area. The number of amenities appearing within the GDP are not fully committed to by project proffer. In instances where two or more amenities have been featured as part of the project design, proffered commitments provide an “off ramp” that potentially reduces the ultimate build out of amenities. For instance, “one or more covered boathouses/ covered slips” has been proffered. Staff notes no architectural commitments or renderings are proposed.

Mixed Land Use Policies 2. Appropriate transitions in scale of building and/or buffering should be provided from mixed land use developments to adjoining existing developments. The area where this project is located is not heavily developed however there are adjacent properties to consider. The project’s development footprint is generally separated from adjacent developed areas and housing via distance, water, tree preservation buffers and large open space areas, some of which have been reserved as drain field locations. The commercial component of the project is well sited in close proximity to commercial development associated with Ann Point Marina. Townhomes are located along a peninsula extending into Lake Anna. Extensive tree preservation areas have been located along much of the project periphery, acting as screening and maintaining some of the existing natural character established onsite presently.

Mixed Land Use Policies 3. Vehicular and pedestrian connections should be made to adjoining developments at appropriate locations, including at existing interparcel access points as depicted on the project GDP the Towns at Point Seanna project is complemented with a system of walking trails throughout the project area and connecting the commercial and residential components of this project. Boat accessibility is also provided with the commitment of a boat ramp and one or more covered boathouses/ covered slips as per project proffer.

Through GDP revision proposed by the applicant the project now includes Courthouse Road bike/ped friendly frontage improvements. Considering the mixed land use designation that promotes pedestrian connectivity and recent precedent with other Courthouse Road fronting projects in the area (Dollar General near Rt. 208 and Lawyers Rd) whose GDP includes a shared

use path along Courthouse Road, staff sought similar frontage improvements along the Route 208 frontage associated with this project. Albeit a small frontage, as the system develops over time this frontage becomes a completed connection point for a connected network along the mixed use area along the Route 208 corridor.

Mixed Land Use Policies 4. A grid pattern of connected streets should be supported by the County. Cul-de-sacs should be discouraged and only employed in rare instances. The development layout is constrained within the limits of a Lake Anna peninsula. This development “finger” by its nature results in a cul-de-sac type configuration stemming off of Corsair Terrace. Corsair Terrace acts as a spine road and connector road amongst a number of parcels. There have been no connections proposed to adjacent parcel 69-A-65 that is also located within the mixed land use designation. Such a connection could be favorable considering future development prospects within the mixed land use designation, providing an alternative connection/ traffic distribution point. Staff notes such a connection poses challenges due to topography and environmental features. Overall the type of project proposed and location limitations are not similar to a connected mixed use “grid” network.

Mixed Land Use Policies 5. The County should support public open space and pedestrian accommodations integrated throughout the development. As depicted on the project GDP the Towns at Point Seanna project is complemented with a system of walking trails throughout the project area and connecting the commercial and residential components of this project. Open space areas are targeted for residents of the development, not public amenities.

Mixed Land Use Policies 6. Mixed Use developments should be designed so that multiple vehicle trips can be combined into one stop by providing several destinations within easy walking distance. Project is representative of a horizontal type mixed use where a variety of uses are located nearby. Walking paths and proximity to nearby commercial reduce the necessity to travel long distances on local roads for goods, services, entertainment. This is expected to be enhanced in time as additional economic development in the area is added to serve local populations.

Mixed Land Use Policies 7. Mixed Use development at Lake Anna should provide local shopping and professional services as well as tourist related uses such as hotels, inns and restaurants. The main objective of this project results in new townhome development oriented towards vacationers. Staff acknowledges the proposal would result in a project ultimately less consistent with Comprehensive Plan Mixed Land Use Policy #7 that advocates for provision of local shopping and professional services as well as tourist related uses such as hotels, inns and restaurants. The Policy does not specifically encourage or discourage residential type development. As noted elsewhere in this analysis at present there are no assurances that units will be gauged toward and occupied by the secondary home/ vacation home market. A timeshare resort model operated as a business tasked with operating the grounds and supportive facilities would be more favorable than a private homeowner led HOA model. As a type of resort, such a project would be more akin to a hotel, lodging type operation. Though the commercial site proposed in the GDP is considered beneficial, the ability of the site to be developed and site for employment opportunities such as shopping, professional services, hotels, inns, restaurants) is effectively scaled back. This rezoning request would reduce the inventory of Resort Commercial Acreage by 30

acres. This would result in an 11% reduction in the total number of R-C acreage within the County that currently stands at approximately 276 acres. R-C zoned acreage only exists presently, and is intended for the Lake Anna area.

Mixed Land Use Policies 9. The County should support a diverse housing mix with a range of housing sizes and types that meet the needs of citizens throughout all stages of life and income levels. Proposal complements goals to provide a mix of units in support a diverse housing mix with a range of housing sizes and types that meet the needs of citizens throughout all stages of life and income levels.

Mixed Land Use Policies 10. Promote the construction of market rate affordable housing. This policy is not aimed at vacation homes as noted as justification for projecting zero impacts to schools in the proffer statement. However, no conditions are in place to clearly assure such units will be occupied exclusively by the vacation housing market. New townhome communities are popular first time homebuyer products offering more modern finishes and amenities at market rate prices more affordable to that market segment. Comparable townhome communities referenced in the provided market study range from approximately \$270,000 to \$420,000.

Mixed Land Use Policies 11. Quality open spaces should be integrated into development and may include passive and active areas, pavilions, walking paths, gardens, forested areas, and lakes, among other features. This project is oriented towards Lake Anna and envisioned as a vacationer's destination. The project includes a number of amenities aimed at future residents complementary of its Lake Anna oriented theme and provision of community amenities including (by proffer): recreational trail system; one or more boat houses/ covered slips; boat ramp; decorative water fountains; pavilion/ gazebo; recreational amenity area. Phasing commitments have been provided in the proffer for some but not all of the aforementioned amenities. Approximately 70% of the site will remain as open space and Resource Protection Areas (RPA's) are being preserved in their natural state but for specific project amenities as shown on the GDP and noted in the GDP narrative. Extensive areas of tree preservation have been designated within the GDP including areas within and outside the limits of RPA. Additional roadside street tree plantings have also been depicted throughout the development area. As depicted on the project GDP the Towns at Point Seanna project is complemented with a system of walking trails throughout the project area and connecting the commercial and residential components of this project. Open space areas are targeted for residents of the development, not public amenities.

Transportation & Thoroughfare Plan:

Transportation Policy 1. Maintain acceptable Levels of Service (LoS) on public roads.
Transportation Policy 2. Ensure that new development does not degrade Levels of Service and mitigates its impact on the transportation network. The County Transportation engineer has verified that traffic generation resulting from the Towns at Point Seanna project is not significant enough to degrade the level of service. The traffic model currently estimates an acceptable LoS (B in the PM peak hour and C in the AM peak hour). If approved, Towns at Point Seanna is expected to generate less traffic compared to the by-right potential associated with existing Resort Commercial (R-C) and Rural Residential (R-R). Additionally, VDOT has completed their review of this rezoning request and has issued an approval letter with no additional

comments at this time. Transportation improvements associated with the project are expected to be positive.

Transportation Policy 2, Strategy 5. The County should support alternative onsite transportation alternatives and recreational options such as transit, pedestrian and bicycle facilities that are able to, or will, connect to neighboring properties. Transportation Policy #3. Promote alternative modes of transportation and multi-modal facilities to more effectively address demands on the transportation network. As depicted on the project GDP the Towns at Point Seanna project is complemented with a system of walking trails throughout the project area and connecting the commercial and residential components of this project.

Historic Resources:

Historic Resources Policy 1. Encourage and promote the voluntary protection and preservation of scenic, historic, cultural, architectural, and archaeological resources. Historic Resources Policy 1, Strategy 2. Support the preservation of resources with local, state, or national significance. This project is not detrimental to historic resources of local, state, or national significance.

Natural Resources:

Natural Resources Policy 1. Balance the protection of environmental resources and natural wildlife habitats with development. Natural Resources Policy 1, Strategy 1. The County should support the mitigation of impacts upon unique and/ or endangered resources including rare species and their habitats. As per project narrative and verified with the Small Whorled Pogonia Survey, a habitat investigation and details survey for the federally and state listed endangered small whorled pogonia was conducted. No evidence was found within the property. Staff consulted the Virginia Department of Conservation and Recreation's Natural Heritage Data Explorer system and notes no predictive model that would suggest sensitive Natural Resource species onsite.

Natural Resources Policy 1, Strategy 3. Encourage land development practices, which minimize impervious cover to promote groundwater recharge, and/ or tree preservation. Approximately 70% of the site will remain as open space and Resource Protection Areas (RPA's) are being preserved in their natural state but for specific project amenities as shown on the GDP and noted in the GDP narrative. Extensive areas of tree preservation have been designated within the GDP including areas within and outside the limits of RPA. Additional roadside street tree plantings have also been depicted throughout the development area.

Natural Resources Policy 4. Investigate the feasibility of providing additional public access points for boating (incl. canoe, kayak), fishing along the Rappahannock River and Lake Anna. The access points should be developed only after soil stability has been determined and an appropriate method has been designed to minimize erosion and its subsequent sedimentation impact. Proposal includes addition of a new Lake Anna boat ramp and boat houses/ covered slips for residents. The new boating access is intended for residents of the

community however is also beneficial for providing access to Lake Anna by emergency responders/ services.

Natural Resources Policy 2. Protect the County’s potable water resources. Considering project location outside of the Primary Development Boundary will require well water, a groundwater assessment was warranted to determine availability and capacity to handle added demands in the area. A preliminary groundwater assessment report was provided that concludes “the site is considered to be favorable for producing the required volumes of water...” based on a number of factors. The study acknowledges a more detailed study of nearby wells, additional remote sensing and fracture trace analysis and on-site geophysical surveying would be warranted to identify exact drilling sites. As noted in the project narrative, a subsequent study conducted in May, 2017 determined that the two necessary wells to serve the project and provided redundancy were “reliable producers capable of much higher yields”.

Spotsylvania County Government

Appendix B

Future Development Summary

| | | Residential Projects with Future Buildout | | | | | | | | | | | | | | | | | | |
|----------------------|----------------|---|--|-----------------------------------|-----|------|-----|---------------------------|------|------|------|---|-------|--------|------|-----------|-------------------|---------------|----------------|----------------|
| Voting District | CP Dev_Dist | Date Approved | Project Name | Enabled Residential Units | | | | Unbuilt Residential Units | | | | Future Anticipated Residents, Students and Fire & Rescue Calls | | | | | Elementary School | Middle School | High School | F&R Station |
| | | | | SFD | SFA | MF | AR | SFD | SFA | MF | AR | Residents | Elem. | Middle | High | F&R Calls | | | | |
| Livingston | RD | | Fawn Lake | Byright and pre-2002 subdivisions | | | | 474 | 0 | 0 | 0 | 1441 | 122 | 62 | 87 | 196 | Brock Rd | Ni River | Riverbend | 7 |
| Chancellor | RD | | Estates of Chancellorsville* | | | | | 44 | 0 | 0 | 0 | 134 | 11 | 6 | 8 | 18 | Chancellor | Ni River | Riverbend | 5 |
| Chancellor | RD | | Estates of Elys Ford* | | | | | 231 | 0 | 0 | 0 | 702 | 60 | 30 | 42 | 95 | Chancellor | Ni River | Riverbend | 5 |
| Chancellor | RD/PSD | | Saw Hill* | | | | | 31 | 0 | 0 | 0 | 94 | 8 | 4 | 6 | 13 | Wilderness | Ni River | Riverbend | 5 |
| Berkeley | RD | 1/16/2008 | Estates of Buckingham* | | | | | 42 | 0 | 0 | 0 | 128 | 11 | 5 | 8 | 17 | Berkeley | Post Oak | Spotsylvania | 3 |
| Livingston | RD | 2/20/2013 | Whitehall* | | | | | 60 | 0 | 0 | 0 | 182 | 15 | 8 | 11 | 25 | Brock Rd | Ni River | Riverbend | 7 |
| Battlefield | PSD | 10/2/2013 | The Estates at Kingswood* | | | | | 20 | 0 | 0 | 0 | 61 | 5 | 3 | 4 | 8 | Battlefield | Chancellor | Chancellor | 4 |
| Salem | PSD | 10/21/2015 | Breckenridge Farms* | | | | | 39 | 0 | 0 | 0 | 119 | 10 | 5 | 7 | 16 | Courthouse | Freedom | Courtland | 1 |
| Courtland | PSD | 1/12/2016 | Avalon Woods* | | | | | 98 | 0 | 0 | 0 | 298 | 25 | 13 | 18 | 40 | Salem | Chancellor | Chancellor | 6 |
| Berkeley | RD | 4/22/2009 | Anna Vista Sec 2* | | | | | 10 | 0 | 0 | 0 | 30 | 3 | 1 | 2 | 4 | Livingston | Post Oak | Spotsylvania | 2 |
| Berkeley | RD | 3/14/2016 | Pennington Estates* | | | | | 9 | 0 | 0 | 0 | 27 | 2 | 1 | 2 | 4 | Courtland | Spotsylvania | Courtland | 1 |
| Livingston | RD | 8/13/2002 | Pamunkey Point | 47 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 55 | 5 | 2 | 3 | 7 | Livingston | Post Oak | Spotsylvania | 9 |
| Battlefield/Lee Hill | PSD | 11/26/2002 | Lee's Parke | 1437 | 0 | 0 | 795 | 344 | 0 | 0 | 133 | 1244 | 89 | 45 | 63 | 169 | Parkside | Spotsylvania | Massaponax | 4 |
| Livingston | RD | 2/25/2003 | Sunrise Bay | 89 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 100 | 9 | 4 | 6 | 14 | Livingston | Post Oak | Spotsylvania | 9 |
| Courtland | PSD | 11/9/2004 | Regency at Chancellorsville | 0 | 0 | 0 | 294 | 0 | 0 | 0 | 91 | 136 | 0 | 0 | 0 | 18 | - | - | - | 5 |
| Courtland | RD | 12/14/2004 | Glenhaven/River Glen | 74 | 0 | 0 | 0 | 25 | 0 | 0 | 0 | 76 | 6 | 3 | 5 | 10 | Chancellor | Chancellor | Riverbend | 5 |
| Courtland | PSD | 11/14/2006 | Reserve at C'ville (Crossing at C'ville) | 122 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 192 | 16 | 8 | 12 | 26 | Chancellor | Chancellor | Riverbend | 5 |
| Lee Hill | PSD | 7/14/2009 | Mallard Landing | 0 | 150 | 0 | 0 | 0 | 79 | 0 | 0 | 190 | 24 | 10 | 11 | 26 | Cedar Forest | Thornburg | Massaponax | 11 |
| Battlefield | PSD | 12/8/2009 | Summerfield | 83 | 44 | 0 | 0 | 40 | 10 | 0 | 0 | 146 | 13 | 7 | 9 | 20 | Spotswood | Battlefield | Chancellor | 4 |
| Livingston | PSD | 4/12/2011 | Keswick | 150 | 90 | 240 | 184 | 150 | 90 | 236 | 184 | 1299 | 135 | 63 | 74 | 176 | RE Lee | Spotsylvania | Spotsylvania | 1 |
| Berkeley | PSD | 10/11/2011 | Ni Village | 0 | 164 | 773 | 0 | 0 | 164 | 773 | 0 | 1547 | 107 | 57 | 63 | 210 | Riverview | Spotsylvania | Massaponax | 8 |
| Lee Hill | PSD | 2/14/2012 | Lakeside | 0 | 100 | 0 | 0 | 0 | 14 | 0 | 0 | 34 | 4 | 2 | 2 | 5 | Spotswood | Battlefield | Massaponax | 4 |
| Lee Hill | PSD | 8/14/2012 | Brooks | 0 | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 1 | 0 | 0 | 1 | Cedar Forest | Thornburg | Massaponax | 11 |
| Livingston | RD | 10/9/2012 | Estates at Terry's Run | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 30 | 3 | 1 | 2 | 4 | Livingston | Post Oak | Spotsylvania | 9 |
| Berkeley/Livingston | PSD | 7/9/2013 | Spotsylvania Cthse Village | 395 | 205 | 900 | 50 | 292 | 165 | 755 | 50 | 2485 | 181 | 95 | 135 | 338 | RE Lee | Spotsylvania | Spotsy/Courtla | 1 |
| Berkeley | PSD | 8/13/2013 | Crossroads Station Apt | 0 | 0 | 610 | 0 | 0 | 0 | 610 | 0 | 909 | 45 | 29 | 31 | 123 | Cedar Forest | Thornburg | Massaponax | 11 |
| Lee Hill | PSD | 9/10/2013 | New Post | 219 | 104 | 102 | 0 | 219 | 87 | 0 | 0 | 875 | 83 | 40 | 53 | 119 | Cedar Forest | Thornburg | Massaponax | 11 |
| Livingston | RD | 9/24/2013 | Fortune's Landing | 49 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 122 | 10 | 5 | 7 | 17 | Wilderness | Ni River | Spotsylvania | 5 |
| Courtland | PSD | 1/14/2014 | Villas at Harrison Crossing (Barley Woods) | 0 | 0 | 0 | 130 | 0 | 0 | 0 | 107 | 159 | 0 | 0 | 0 | 22 | - | - | - | 6 |
| Lee Hill | PSD | 1/28/2014 | Heritage Woods | 697 | 180 | 183 | 0 | 697 | 180 | 183 | 0 | 2825 | 248 | 123 | 163 | 384 | Parkside | Spotsylvania | Court/Mass | 1/4/8 |
| Berkeley | PSD | 6/24/2014 | Ni River Comm. Church/Courtland Park | 89 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 246 | 21 | 11 | 15 | 33 | Courtland | Spotsylvania | Courtland | 1 |
| Battlefield | PSD | 6/24/2014 | Southpoint Landing | 0 | 0 | 830 | 0 | 0 | 0 | 550 | 0 | 820 | 40 | 26 | 28 | 111 | Parkside | Battlefield | Massaponax | 4 |
| Chancellor | RD | 9/9/2014 | Legends of Chancellorsville | 218 | 0 | 0 | 0 | 218 | 0 | 0 | 0 | 663 | 56 | 28 | 40 | 90 | Brock Rd/Chan. | Ni River | Riverbend | 5 |
| Lee Hill | PSD | 12/9/2014 | Wheatland | 0 | 98 | 0 | 0 | 0 | 93 | 0 | 0 | 224 | 29 | 12 | 14 | 30 | Lee Hill | Thornburg | Massaponax | 11 |
| Chancellor | PSD | 12/9/2014 | Thorburn Estates | 59 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 179 | 15 | 8 | 11 | 24 | Wilderness | Freedom | Riverbend | 10 |
| Lee Hill | PSD | 6/23/2015 | Jackson Village | 0 | 596 | 1289 | 385 | 0 | 596 | 1149 | 385 | 3722 | 267 | 131 | 145 | 506 | Parkside | Spotsylvania | Massaponax | 4 |
| Courtland | PSD | 11/12/2015 | Retreat at C'ville | 0 | 0 | 0 | 192 | 0 | 0 | 0 | 191 | 285 | 0 | 0 | 0 | 39 | - | - | - | 5 |
| Berkeley | PSD | 12/8/2015 | Alexander's Crossing | 518 | 971 | 888 | 230 | 518 | 971 | 888 | 230 | 5581 | 497 | 234 | 281 | 758 | Riverview | Thornburg | Massaponax | 11 |
| Berkeley | RD/PSD | 1/26/2016 | Plantation Woods | 132 | 0 | 0 | 0 | 132 | 0 | 0 | 0 | 401 | 34 | 17 | 24 | 55 | Courtland | Spotsylvania | Massaponax | 1 |
| Livingston | RD | 5/24/2016 | Goodwin Cove | 35 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 106 | 9 | 5 | 6 | 14 | Livingston | Post Oak | Spotsylvania | 9 |
| Berkeley | PSD | 3/14/2017 | Cedar Forest | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 88 | 7 | 4 | 5 | 12 | Cedar Forest | Thornburg | Massaponax | 11 |
| Berkeley | PSD | 3/14/2017 | Summit Crossing Estates | 70 | 0 | 0 | 0 | 70 | 0 | 0 | 0 | 213 | 18 | 9 | 13 | 29 | Riverview | Thornburg | Massaponax | 11 |
| Courtland | RD | 9/12/2017 | Barrington | 39 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 119 | 10 | 5 | 7 | 16 | Chancellor | Chancellor | Riverbend | 5 |
| Battlefield | PSD | 12/12/2017 | Afton | 29 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 88 | 7 | 4 | 5 | 12 | Spotswood | Battlefield | Massaponax | 4 |
| Battlefield | PSD | 6/12/2018 | Roseland | 0 | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 34 | 4 | 2 | 2 | 5 | Spotswood | Battlefield | Massaponax | 4 |
| Chancellor | PSD | 8/14/2018 | Ashleigh Ridge Subdivision | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 58 | 5 | 2 | 3 | 8 | Wilderness | Freedom | Riverbend | 5 |
| Courtland | PSD | 8/14/2018 | The Villas at Salem Church | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 67 | 0 | 0 | 0 | 9 | - | - | - | 6 |
| Lee Hill | PSD | 9/9/2018 | Palmer's Creek | 0 | 0 | 400 | 0 | 0 | 0 | 400 | 0 | 596 | 29 | 19 | 20 | 81 | Parkside | Spotsylvania | Massaponax | 8 |
| | | 11/15/2018 | Regency Crossing | 0 | 21 | 0 | 0 | 0 | 21 | 0 | 0 | 51 | 6 | 3 | 3 | 7 | Harrison Road | Chancellor | Riverbend | 6 |
| | | | | TOTALS | | | | 4218 | 2486 | 5544 | 1416 | 29,184 | 2307 | 1152 | 1457 | 3965 | | | | |
| | | | | Total unbuilt residential units | | | | 13,664 | | | | | | | | | | | | |

*By-right subdivisions

KEY: SFD = Single Family Detached; SF = Single Family Attached; MF = Multi- Family (apartments); AR = Age Restricted Units (any type)

Notes: Does not include new by-right subdivisions of fewer than 10 lots, family divisions, or annual divisions
Does not include existing by-right lots outside of subdivisions

Projects added 11/15/2018

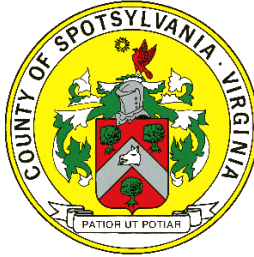
| Generation Rates | SFD | SFA | MF | |
|-------------------|------------------------|--------|--------|-------|
| Persons Per Unit | 3.04 | 2.41 | 1.49 | |
| Students Per Unit | | | MF Mkt | MF TC |
| Elementary | 0.2577 | 0.3072 | 0.073 | 0.291 |
| Middle | 0.1307 | 0.1286 | 0.047 | 0.134 |
| High | 0.1832 | 0.1453 | 0.051 | 0.139 |
| Fire and Rescue | 0.136 calls per capita | | | |

TC = Tax Credit
Mkt = Market Rate

County of Spotsylvania

Founded 1721

Board of Supervisors
GREG BENTON
KEVIN W. MARSHALL
TIMOTHY J. McLAUGHLIN
DAVID ROSS
GARY F. SKINNER
PAUL D. TRAMPE
CHRIS YAKABOUSKI



Spotsylvania County
Utilities/Public Works
Director
BENJAMIN L. LOVEDAY, P.E.
600 HUDGINS RD
FREDERICKSBURG, VIRGINIA 22408
OFFICE: (540) 507-7300
FAX: (540) 898-3674

Service, Integrity, Pride

MEMORANDUM

Date: August 14, 2019

To: B. Leon Hughes, AICP, Assistant Director, Planning

From: Benjamin L. Loveday, P.E., Director, Utilities/Public Works

Re: Rezoning Application R15-0006

The Spotsylvania County Department of Utilities has reviewed Rezoning Application R15-0006, Towns at Pointe Sienna. The subject parcel(s) are located outside of the Primary Settlement Area and are not designated within the Water/Sewer Master Plan for public utilities. The private water and sewer utilities associated with this rezoning are therefore regulated by the Commonwealth of Virginia and not the Spotsylvania County Department of Utilities.

Working with the Spotsylvania County Planning office, the Department has acted in an advisory capacity as it relates to the potential private utility system proposed as part of this case. The applicant has agreed to construct private utilities to the most recent version of the Spotsylvania County Utility Design and Construction Standards Manual, which exceeds the minimum state standard. In addition, the applicant has also agreed that any future system extension meet the Spotsylvania County Utility Design and Construction Standards Manual at the time of said extension. Any extension would also be subject to the Code of Virginia and approval by the Spotsylvania County Board of Supervisors.

The Department has also identified several long range concerns that the Spotsylvania County Planning Commission and Board of Supervisors may want to consider as it relates to the approval of any private utility systems in the County.

1. **Private Utility System Precedent:** The proposed private utility system (including treatment and conveyance) would be one of the first systems allowed in the County in recent history for subdivided residential use. Allowing this type of system would potentially open the door to additional systems throughout the County, increasing overall development potential and density in unserved areas.
2. **Future County Ownership:** While the financial and regulatory requirements have improved for private utility systems, the potential still exists for the County to be asked to take over said system by either the operator or the customers of the system. This is usually triggered by financial insolvency on the part of the operator, high customer billing, environmental impacts, and/or water quality. Typically, if the County is asked to consider taking over the system, then the system operator has deemed it financially unviable to operate or repair. This means the County would be required to invest funds to bring the facility into compliance through taxation subsidization or direct billing of the existing system customers. The Department recommends the County request and review all applicable permits and documentation as it relates to the proposed private system, including requirements of the State Corporation Commission, Home Owners Association Documentation, and associated easements.

The Department will have staff available at future meetings regarding R15-0006 to provide additional information as required.



**REZONING
APPLICATION**
(Please type or
print)

Date: 5.22.15

Case: R15-0000

110-0000-316-16-08 (395)
110-0000-316-16-08 (395)
110-0000-316-16-10 (334)
260-0000-313-03-45
260-0000-318-99-14

Mailing \$ 21.48
Planning \$ 13,491.96
GIS MAY 22 2015 \$ 830.00
Zoning \$ 625.00
Intake \$ 55.00
Process Fee
Total Planning Fee \$ 15,083.44
Code - Compliance

David L. Hunter

Applicant's Name

5036 Corsair Terrace

Applicant's Address

Mineral, VA 23117

City, State, Zip Code

Hunter2911@aol.com

Applicant's E-mail Address

407-621-1348

Applicant's Telephone No.

David T. McElhaney, Urban, Ltd.

Agent's Name (Point of Contact for Application)

7712 Little River Turnpike

Agent's Address

Annandale, VA 22003

City, State, Zip Code

dmcelhaney@urban-ltd.com

Agent's E-mail Address

703-642-8080

Agent's Telephone No.

Property Owner Information:

(same as Applicant)

Name

**If Applicant is not the owner, attach
documentation of owner's consent**

Address

City, State, Zip Code

Telephone No.

Parcel Location:

Courthouse Road and Corsair Terrace

Tax Map Parcel Number:

69-5-B and 69-5-A5

Acreage:

47.0436

Current Zoning:

R-C and R-R

Acreage in Request

47.0436

Proposed Zoning:

PDH-2

Overlay District:

Proposed Use:

Single family attached units (townhomes) and open space

To: The Board of Supervisors of Spotsylvania County, Virginia. The above named Applicant(s) hereby petition(s) for the approval indicated above for the described property and as shown on the attached plan made a part of this Application and certifies that the information provided is correct.

Signature of Owner (or Agent with POA*)

Date

Print Name

Signature of Owner (or Agent with POA*)

Date

Print Name

*I have read this Application, understand its intent and freely consent to its filing. Furthermore, I have the power to authorize and hereby grant permission for Spotsylvania County Officials and other authorized government agents on official business to enter the property to process this Application.

Voting District: _____ Census Tract: _____ Traffic Analysis Zone: _____

(To be completed by the Planning Department after submission)

**POINT SEANNA
GENERALIZED DEVELOPMENT PLAN/ MASTER ZONING PLAN NARRATIVE**

1. THE SUBJECT PROPERTY (SITE) IS LOCATED ON SPOTSYLVANIA COUNTY TAX MAP NUMBER 69, AND IS COMPRISED OF PARCELS 69-5-B AND 69-5-A5. THE SITE AREA IS 47.04 ACRES BASED ON A BOUNDARY SURVEY.
2. ALL REFERENCES TO ZONING ORDINANCE SHALL REFER TO THE SPOTSYLVANIA COUNTY ZONING ORDINANCE, ADOPTED MARCH 27, 1990, AS AMENDED OR AS UPDATED TO REFLECT CURRENTLY ADOPTED CODE.
3. THE PROPERTY IS DESIGNATED FOR MIXED LAND USE ON THE COMPREHENSIVE PLAN, FUTURE LAND USE MAP. IT IS ALSO LOCATED IN THE TECHNOLOGY ZONE AND TOURISM ZONE.
4. THIS APPLICATION PROPOSES REZONING FROM THE R-R (RESIDENTIAL RESORT) TO THE PDH-2 (PLANNED DEVELOPMENT HOUSING) DISTRICT, AND REZONING A PORTION OF THE R-C (RESORT COMMERCIAL) DISTRICT TO THE PDH-2 DISTRICT. APPROXIMATELY 3.3 ACRES OF R-C DISTRICT IS PROPOSED TO REMAIN FOR COMMERCIAL USE.
5. THE PROPERTY DOES NOT FALL WITHIN ANY RESERVOIR, RIVER OR HISTORIC PROTECTION OVERLAY DISTRICT.
6. BOUNDARY AND TOPOGRAPHIC INFORMATION WAS PREPARED BY URBAN, LTD. IN NOVEMBER AND DECEMBER, 2014.
7. WETLAND DELINEATION WAS CONDUCTED BY STANTEC CONSULTING SERVICES INC., IN JULY, 2014.
8. DRAINFIELD INFORMATION IS FROM A SOILS STUDY PREPARED BY BOWMAN CONSULTING, IN JULY, 2014.

LAND USE AND AMENITIES

1. THIS APPLICATION PROPOSES A MIXED USE DEVELOPMENT OF A MAXIMUM OF 85 TOWNHOMES (SINGLE FAMILY ATTACHED UNITS), RECREATIONAL OPEN SPACE, AMENITIES, AND COMMERCIAL USE WITHIN A PORTION OF THE EXISTING R-C ZONING DISTRICT.
2. NEIGHBORING PROPERTIES SHALL BE BUFFERED BY OPEN SPACE AND EXISTING VEGETATION AS SHOWN ON THE GENERALIZED DEVELOPMENT PLAN/ MASTER ZONING PLAN.
3. PROPOSED AMENITIES WILL INCLUDE PEDESTRIAN TRAILS, A COMMUNITY BOAT RAMP, ONE OR MORE BOATHOUSES/COVERED SLIPS, ONE OR MORE DECORATIVE WATER FOUNTAINS, ONE OR MORE PAVILIONS/GAZEBOs, GOLF CART PARKING AREAS AND AN AMENITY AREA CONTAINING ONE OR MORE RECREATIONAL FACILITIES SUCH AS AN INFORMAL PLAY AREA, GAZEBO/SHADE STRUCTURE, TOT LOT, VOLLEYBALL COURT, AND/OR A BATHHOUSE WITH POOL.
4. OFF-SITE AMENITIES INCLUDE LAKE ANNA STATE PARK, WHICH IS LOCATED DIRECTLY ACROSS THE LAKE AND HAS FACILITIES FOR SWIMMING, BOATING, CAMPING, AND 15 MILES OF MULTI-USE TRAILS.
5. THIS PROJECT IS PROPOSED TO BE DEVELOPED IN A SINGLE PHASE SUBJECT TO MARKET CONDITIONS.

CULTURAL RESOURCES

1. THERE ARE NO CEMETERIES OR GRAVE SITES KNOWN TO EXIST ON THE PROPERTY.
2. AS STATED IN A LETTER FROM THE VIRGINIA DEPARTMENT OF HISTORIC RESOURCES, DATED DECEMBER 30, 2014, THERE ARE NO HISTORIC OR SCENIC ASSETS ON THE PROPERTY AS IDENTIFIED BY THE SPOTSYLVANIA COUNTY COMPREHENSIVE PLAN, THE VIRGINIA DEPARTMENT OF HISTORIC RESOURCES OR THE U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE.

FIRE AND RESCUE

1. SUBJECT TO APPROVAL BY DOMINION POWER, AN EMERGENCY ACCESS BOAT RAMP IS PROPOSED, WITH A DRY HYDRANT TO BE LOCATED ADJACENT TO THE RAMP.
2. THE PROPERTY WILL BE SERVED BY THE BROKENBURG FIRE AND RESCUE STATION NUMBER 2, LOCATED ON COURTHOUSE ROAD, ABOUT 5 MILES AWAY.

WATER/ SEWER

1. WATER AND SEWER WILL BE PROVIDED BY COMMUNITY WELLS AND DRAINFIELDS. PRELIMINARY LOCATIONS ARE SHOWN ON THE GDP. FINAL LOCATIONS MAY BE SUBJECT TO MORE DETAILED ENGINEERING ANALYSIS AND WILL BE SHOWN ON FINAL ENGINEERING PLANS.
2. A STUDY BY MAEVELLE ENERGY, DATED DECEMBER, 2014 INDICATED THAT THE SITE IS CONSIDERED TO BE FAVORABLE FOR PRODUCING THE REQUIRED VOLUMES OF WATER TO MEET THE DEMANDS OF AN 80+ UNIT HOUSING DEVELOPMENT.
3. AN ADDITIONAL STUDY PERFORMED BY TRUE NORTH ENVIRONMENTAL IN MAY, 2017 INVOLVED DRILLING TWO WELLS ON SITE AND PUMPING FOR 48 HOURS TO DETERMINE CAPACITY AND RECOVERY. THE STUDY CONCLUDED THAT BOTH WELLS WERE EXTRAORDINARY AND RELIABLE PRODUCERS CAPABLE OF MUCH HIGHER YIELDS. BOTH WELLS ARE CONSIDERED TO BE ABLE TO FUNCTION AS SEPARATE SOURCES OF WATER.
4. A CERTIFICATION LETTER FROM THE SPOTSYLVANIA COUNTY HEALTH DEPARTMENT, DATED 10-16-17 CONFIRMS THAT SOIL AND SITE CONDITIONS ARE SUITABLE FOR THE INSTALLATION OF AN ONSITE SEWAGE DISPOSAL SYSTEM.

ENVIRONMENT

1. THE PROPERTY IS A MODERATELY SLOPING SITE COMPRISED OF FORESTED LAND. APPROXIMATELY 70% OF THE PROPERTY WILL REMAIN AS OPEN SPACE.
2. A HABITAT INVESTIGATION AND DETAILED SURVEY FOR THE FEDERALLY AND STATE LISTED ENDANGERED SMALL WHORLED PAGONIA WAS CONDUCTED BY STANTEC CONSULTING SERVICES INC. IN JULY, 2014. NO EVIDENCE OF THIS PLANT WAS FOUND WITHIN THE PROPERTY.
3. RPA INFORMATION IS FROM A SITE INVESTIGATION BY STANTEC CONSULTING SERVICES INC. IN JULY, 2014. AREAS WITHIN THE RPA WILL REMAIN IN A NATURAL STATE EXCEPT FOR UTILITIES, EMERGENCY ACCESS DRIVE AND BOAT RAMP, LAKEFRONT AMENITIES, PEDESTRIAN TRAILS AND ANY GOLF CART PARKING AREAS TO SERVE THE COVERED BOATHOUSES/BOAT SLIPS.

HOUSING

THERE IS AN EXISTING SFD HOME ON THE ADJACENT PARCEL (T.M. 69-5-A4). THE REQUIRED BUFFER YARD WILL BE PROVIDED AT THIS LOCATION. IN ADDITION, A 100 FOOT WIDE BUFFER WILL BE PRESERVED ALONG THE LAKE AS REQUIRED.

TRANSPORTATION

1. BASED ON THE ITE (INSTITUTE OF TRANSPORTATION ENGINEERS) TRIP GENERATION CODE 230 RATE OF 5.81 DAILY TRIPS PER TOWNHOME, AND A POSSIBLE MAXIMUM OF 1,290 DAILY TRIPS FOR THE PROPOSED COMMERCIAL USE, IT IS ESTIMATED THAT THE DEVELOPMENT COULD GENERATE UP TO 1,914 VEHICULAR TRIPS PER DAY.
2. THE INTERSECTION OF CORSAIR TERRACE, ANNA POINT LANE, AND COURTHOUSE ROAD WILL BE WIDENED AND IMPROVED FOR SAFER ACCESS AND TURNING MOVEMENTS. ALSO, RIGHT TURN AND LEFT TURN LANES WILL BE PROVIDED ON COURTHOUSE ROAD. CORSAIR TERRACE WILL BE WIDENED FROM ITS CURRENT WIDTH TO 26 FEET FROM COURTHOUSE ROAD TO THE ENTRANCE OF THE DEVELOPMENT (APPROXIMATELY 1,100 FEET). ADDITIONAL RIGHT OF WAY APPROXIMATELY 75 FEET FROM THE CENTERLINE OF COURTHOUSE ROAD WILL BE DEDICATED.
3. OTHER IMPROVEMENTS AT COURTHOUSE ROAD MAY INCLUDE THE INSTALLATION OF STREET LIGHTS AS REQUIRED BY THE DESIGN STANDARDS MANUAL, UNLESS WAIVED BY THE COUNTY.

STORM WATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP)

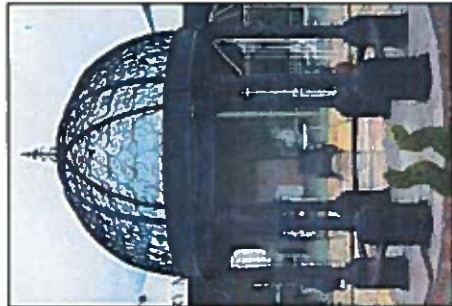
DUE TO THE CLOSE PROXIMITY OF THE LAKE, IT IS NOT ANTICIPATED THAT SWM FACILITIES WILL BE REQUIRED. IF AT TIME OF FINAL ENGINEERING IT IS DETERMINED THAT DRAINAGE OUTFALLS ARE NOT SUFFICIENT, SWM FACILITIES WILL BE PROPOSED THAT MAY INCLUDE BIORETENTION FACILITIES, PERMANENT CHECK DAMS, INFILTRATION SYSTEMS AND/OR DETENTION PONDS.

6-8-2018

THESE ILLUSTRATIONS ARE INTENDED TO SHOW VARIOUS EXAMPLES OF PROPOSED AMENITIES AND THEIR GENERAL APPEARANCE, SIZE, MATERIALS, DESIGN AND QUALITY. THE INTENT IS TO SHOW THE GENERAL CONCEPT RATHER THAN A SPECIFIC DESIGN OR MATERIAL.



3 GAZEBO
NTS



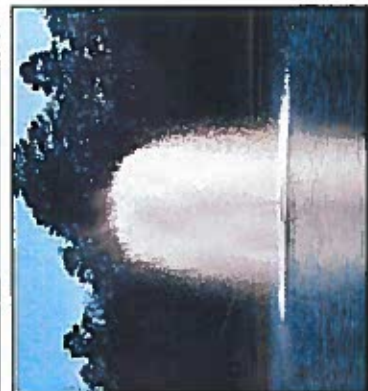
3 GAZEBO
NTS



1 TOT LOT
NTS



2 PLAY FIELD
NTS



4 FOUNTAIN
NTS



5 COVERED BOAT SLIP
NTS

VOLUNTARY PROFFER STATEMENT
R15-0006

Owner or Applicant:

David L. Hunter
5036 Corsair Terrace, Mineral, VA 23117

Date of Proffers:

July 15, 2019

Project:

Point Seanna
Tax parcel 69-5-B (4900 Corsair Terrace) and 69-5-A5 (4920 Corsair Terrace) (the "Property")

I. General Information

Pursuant to Section 15.2-2303 of the Code of Virginia (1950), as amended, and Section 23-4.6.3 of the Spotsylvania County Zoning Ordinance, as amended, (the "Ordinance"), David L. Hunter, ("Owner" or "Applicant"), on behalf of himself, his successors and assigns, hereby voluntarily proffers that the development and use of the 47.0436± acre Property subject to Rezoning Application R15-0006, shall be in conformance with the reasonable proffered conditions set forth below.

All proffers made herein are subject to acceptance by the County Board of Supervisors and are contingent upon approval of Rezoning R15-0006, which seeks a rezoning of the Property from the R-R (Residential Resort) District and a portion of the R-C (Resort Commercial) District to the PDH-2 (Planned Development Housing) District.

Sheets 1-14 of the Point Seanna Generalized Development Plan/Master Zoning Plan ("GDP"), dated May 22, 2015, and last revised, July 1, 2019, as prepared by Urban, Ltd., are included by reference within these proffered conditions, as set forth below.

II. Land Use

A. Generalized Development Plan

1. For purposes of the final site plans, the Property will be developed in conformance with the GDP. Notwithstanding the foregoing, all parcel sizes, building envelopes, building sizes, public road locations, private driveway and travel ways locations, utility locations, storm water facilities, and dimensions of undeveloped areas shown on the GDP may be reasonably adjusted for the purposes of the final site or subdivision plans to allow the Applicant to address final development engineering and design requirements, and to fulfill compliance with state and federal agency regulations, including, but not limited to, Virginia Department of Historic Resources (DHR), Virginia Department of Transportation (VDOT), Virginia Department of Environmental Quality (DEQ), Virginia Department of Conservation and Recreation (DCR), and Army Corps of Engineers, and compliance with the requirements of the County's Zoning, Subdivision and Design Standards Manual, subject to approval of the Zoning Administrator.
2. The Applicant shall conform to the limits of clearing shown on Sheets 7 and 10 of the GDP. Adjustments will be limited to the extent necessary for the final construction of homes, streets, amenity structures, fences, utilities (to include wells, pump stations, drainfields, and any stormwater facilities) and trails.

B. Residential Units and Commercial Development

The Applicant will limit the number of residential units to no more than eighty-five (85) single-family attached units; and a maximum of 30,000 square feet of commercial development, as shown on the GDP.

III. Transportation

A. The Applicant shall dedicate to VDOT additional fee simple right of way approximately 75 feet from Courthouse Road centerline along the Property's frontage on Courthouse Road, as shown on the GDP. This right of way shall be dedicated at the time of recordation of subdivision plat.

B. The Applicant shall improve the intersection of Corsair Terrace, Anna Point Lane and Courthouse Road as shown on the GDP. A right turn taper and left turn lane shall be provided on Courthouse Road. Corsair Terrace shall be widened to a minimum of 26 feet from the intersection at Courthouse Road extending to the entrance into the development.

IV. Environment

A. The Applicant shall provide pedestrian trails, a dry hydrant and a private boat ramp access drive, as generally shown on the GDP. The access drive and the boat ramp shall be maintained by the Homeowners Association in perpetuity in a condition sufficient to guarantee adequate access for Fire, Rescue and Emergency Management (FREM) as determined by FREM. The dry hydrant shall be installed at the time of issuance of the first building permit for the first row of townhomes.

V. Materially Relevant

A. Amenities

Amenities to be provided shall include the following, in the general locations as shown on the GDP:

- Trails
- One or more covered boathouses/covered slips
- A decorative water fountain at one or both locations
- A pavilion/gazebo at one or both locations
- An amenity area containing at least one or several recreational facilities such as an informal play area, gazebo/shade structure, tot lot, volleyball court and/or a bathhouse with pool.

The boat ramp will be constructed upon issuance of an occupancy permit for the first townhome. At least one covered boathouse will be constructed prior to issuance of an occupancy permit for the 43rd unit. Trails and other amenities will be completed prior to bond release.

B. Escalator/De-escalator

Unless otherwise specified, all cash contributions enumerated in these proffers shall be subject to an annual adjustment based on the Consumer Price Index, U.S. City Average, All Urban Consumers (CPI-U) All Items (1982-84=100) (the "CPI"), prepared and reported monthly by the U.S. Bureau of Labor Statistics of the United States Department of Labor. This adjustment shall occur on January 1st to reflect any increase or decrease by multiplying the Per Unit Contribution for the preceding year by the CPI as of December 1 in the preceding year.

VI. Water and Wastewater Treatment System

The Applicant shall design, construct, and maintain a water and wastewater system to serve the Property.

- A. The water and wastewater system shall be designed, constructed, and maintained to meet the standards set out in the most recent version of the Spotsylvania County Utility Design and Construction Standards Manual.
- B. The Applicant shall, together with its site plan application, submit to the County a design of the system and a detailed utility infrastructure management plan illustrating how the system will be designed, constructed, and maintained so as to meet the standards set out in the most recent version of the Spotsylvania County Utility Design and Construction Standards Manual.
- C. Should the Applicant or then current owner desire, at any time in the future, to extend the initially built water or wastewater system, to include offsite connections, the Applicant shall follow the prescribed requirements in the Virginia Code for such extensions (currently Sections 15.2-2126-15.2-2130) and shall further evidence necessary access and maintenance easements on and across any and all adjoining properties where any extensions are to occur at the time of proposal of extensions to the County.
- D. Any other water or wastewater system which connects to the water and wastewater system constructed to serve the Property shall also be designed, constructed, and maintained to meet the standards set out in the most recent version of the Spotsylvania County utility Design and Construction Standards Manual and the Applicant or then current owner shall not allow any other water or wastewater system to connect to the water and wastewater system constructed to serve the Property which fails to meet the afore-referenced standards.

VII. Proffer Summary Chart

The Applicant shall make a one-time capital facilities contribution of \$6,671.32 per unit constructed. Said contribution shall be paid after completion of the final County inspection of the dwelling unit and at time of issuance of Certificate of Occupancy.

| CASH AND IN-KIND PROFFERS* | | | | | |
|---|------------------|--------------|--------------|----------------|------------------|
| | SF Detached | SF Attached | Multi-family | Age-restricted | Total |
| Per Unit Cash Proffer | | \$7,178 x 79 | - | - | |
| TOTAL | | \$567,062 | - | - | \$567,062 |
| LUMP SUM AND IN-KIND CONTRIBUTIONS* | | | | | |
| PUBLIC FACILITY CATEGORY | | | | | Total value |
| Schools | N/A** | | | | N/A** |
| Sheriff, FREM, Courts & Govt. | \$2,162 per unit | | | | \$170,798 |
| Transportation | \$3,627 per unit | | | | \$286,533 |
| Parks & Recreation | \$596 per unit | | | | \$47,084 |
| Solid Waste | \$634 per unit | | | | \$50,086 |
| Libraries | \$159 per unit | | | | \$12,561 |
| TOTAL CASH & IN-KIND PROFFER VALUE | | | | | \$567,062 |

*Although a maximum of 85 SF attached units are proposed, the amounts are based on 79 units which take into account the 6 by-right potential lots permitted by the 12.9438 acres of existing R-R zoning district.

**N/A due to minimal impact of vacation homes on school facilities

The Applicant makes these proffers voluntarily, in support of its rezoning application.

David L. Hunter

By:  (SEAL)

Name: David L. Hunter

Title: Owner

Date: JULY 18, 2019

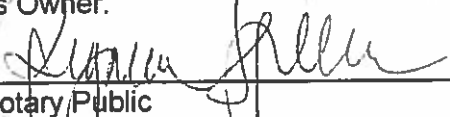
COMMONWEALTH OF VIRGINIA

COUNTY/CITY OF FREDERICKSBURG

The foregoing proffer statement was acknowledged before me this 18th day of

July, 2019 by DAVID L. HUNTER

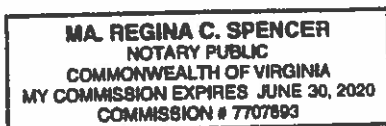
as Owner.



Notary Public

My Commission Expires: JUNE 30, 2020

State ID # ~~FDL#RE~~ 7707693



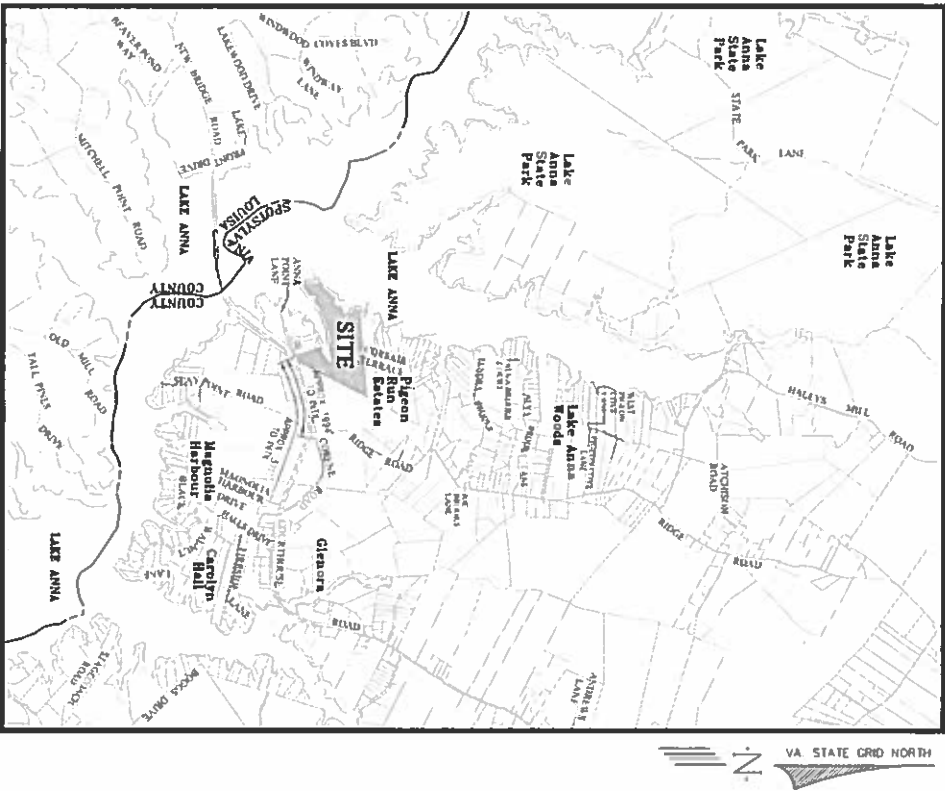
POINT SEANNA
GENERALIZED DEVELOPMENT PLAN/MASTER ZONING PLAN
LIVINGSTON VOTING DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA

APPLICANT/OWNER

David L. Hunter
5036 Corsair Terrace
Manassas, VA 20117

OWNER'S AGENT

Urban, Ltd.
7712 Little River Turnpike
Annandale, VA 22003
703-642-8080
David T. McElhaney



VICINITY MAP
SCALE: 1" = 2000'

REZONING APPLICATION: R15-0006
TAX MAP 69-5-B & 69-5-A5
CORSAIR TERRACE

SHEET INDEX

- 1 COVER SHEET
- 2 REZONING PLAT
- 3 EXISTING CONDITIONS PLAN
- 4 GENERALIZED DEVELOPMENT PLAN MASTER ZONING PLAN
- 5 UTILITIES PLAN
- 6 GENERALIZED DEVELOPMENT PLAN IN CONTEXT WITH EXISTING AND PROPOSED ZONING DISTRICTS
- 7 LANDSCAPE PLAN
- 8 TURN LANE AND SIGHT DISTANCE PROFILE AND DETAILS
- 9 NOTES AND DETAILS
- 10 ULTIMATE CONDITIONS WATER QUALITY MAP
- 11 ULTIMATE CONDITIONS WATER QUALITY COMPS
- 12 ULTIMATE CONDITIONS SWM MAP AND COMPS
- 13 ILLUSTRATIVE PLAN
- 14 AUTOTURN ANALYSIS

| REVISIONS | |
|-----------|-------------|
| No. | DESCRIPTION |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| PLAN DATE |
|-----------|
| 05/22/15 |
| 11/20/17 |
| 06/08/18 |
| 08/20/18 |
| 10/10/18 |
| 07/01/19 |

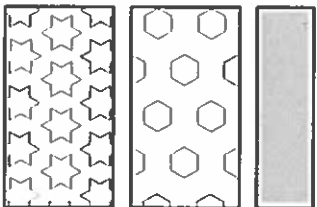
Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel: 703.642.8080
www.urban-ld.com



| COVER SHEET | | |
|---|------------|-----------------|
| POINT SEANNA REZONING APPLICATION LIVINGSTON VOTING DISTRICT SPOTSYLVANIA COUNTY, VIRGINIA | | |
| SCALE: AS SHOWN | C.I. = N/A | DATE: MAY, 2015 |

| SHEET |
|--------------------|
| 1 OF 14 |
| FILE No ZP-2198 |

LEGEND

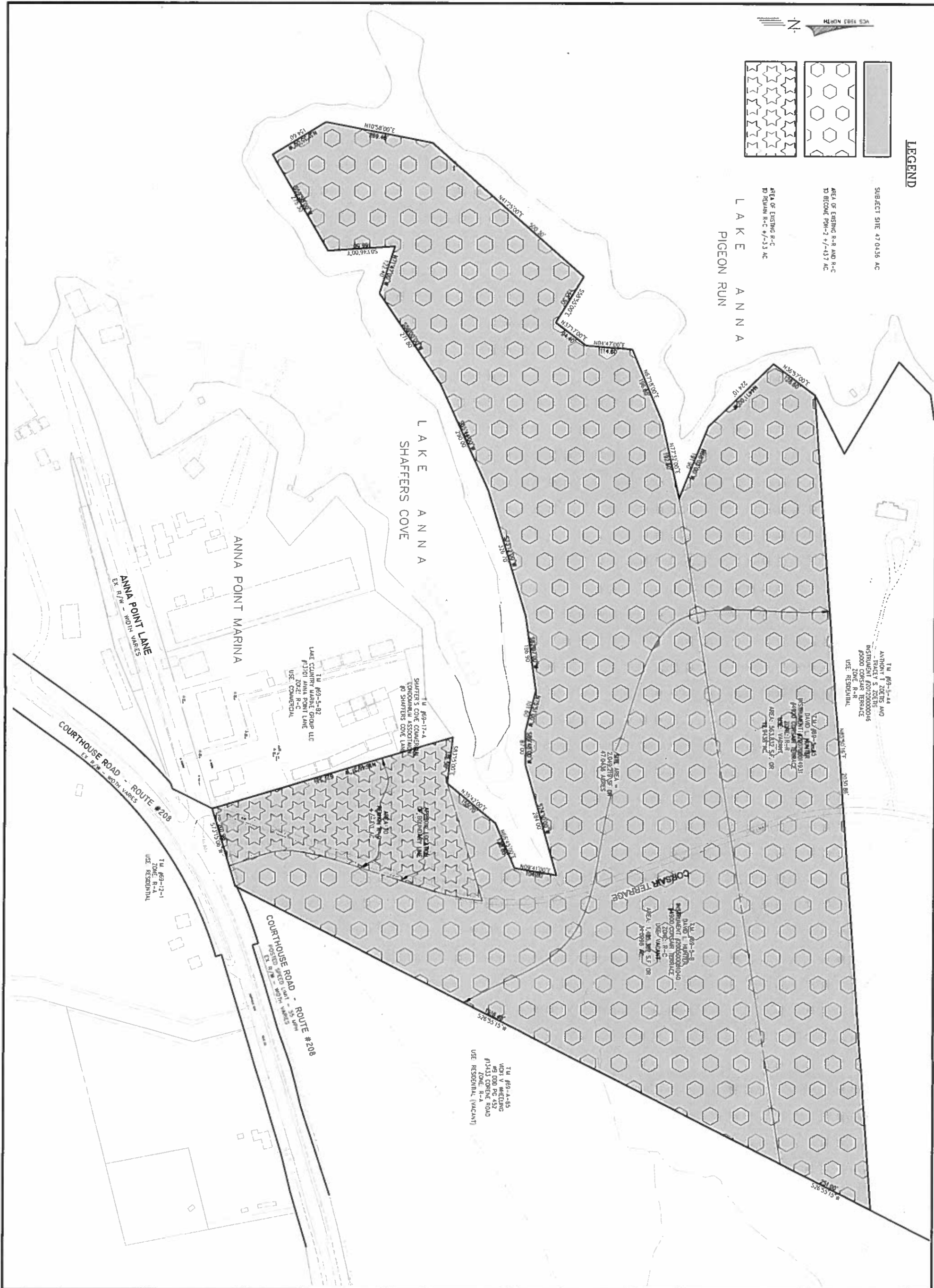


SUBJECT SITE 47.0436 AC

AREA OF EXISTING R-R AND R-C
TO BECOME R-R-2 +/- 437 AC

AREA OF EXISTING R-R AND R-C
TO BECOME R-R-2 +/- 437 AC

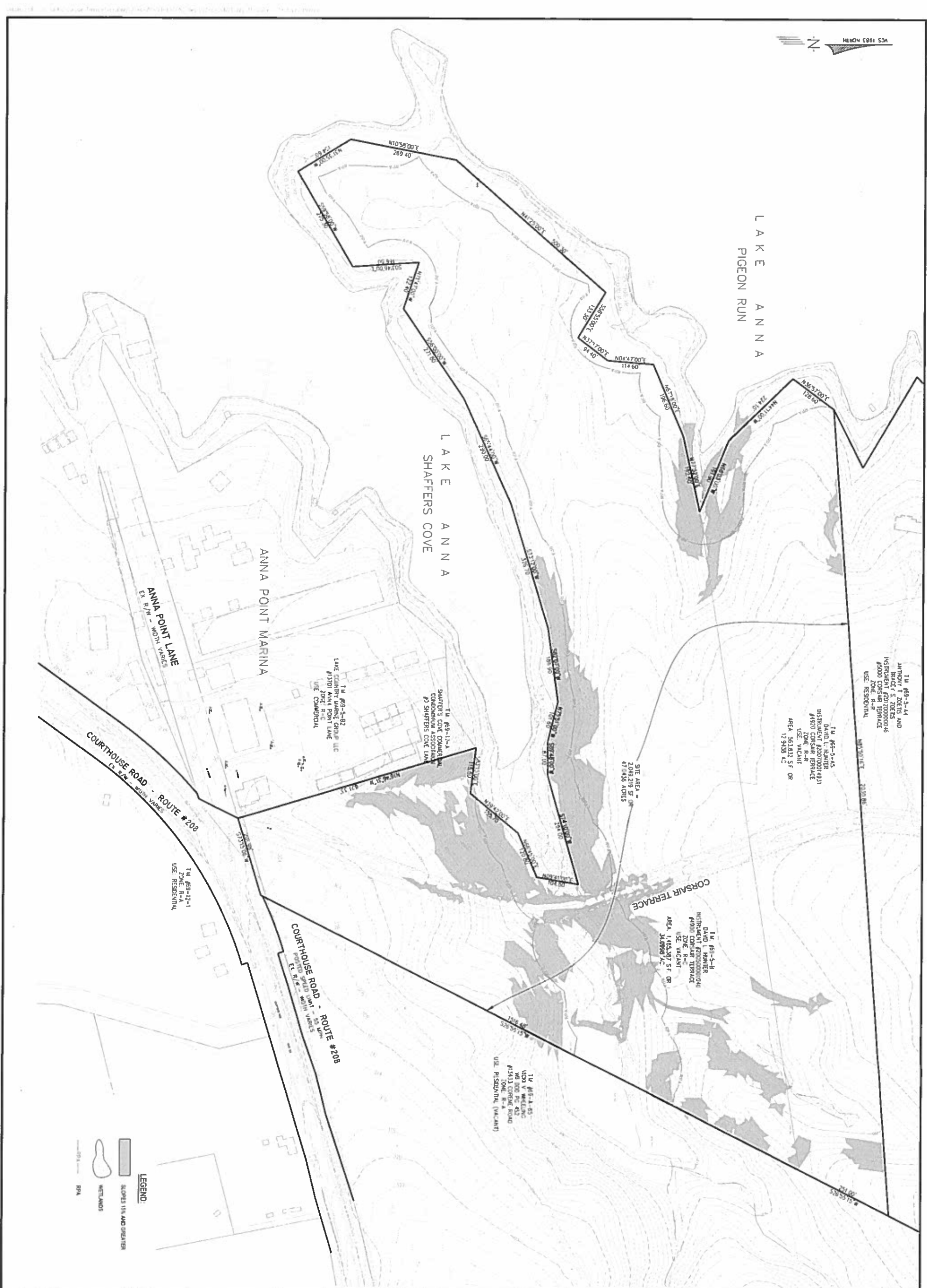
L A K E A N N A
P I G E O N R U N



| | | | | | |
|--|---|---|---|-----------|--|
| REZONING PLAT POINT SEANNA REZONING APPLICATION LIVINGSTON VOTING DISTRICT SPOTSYLVANIA COUNTY, VIRGINIA | COMMONWEALTH OF VIRGINIA DAVID F. McELHANEY No. 022048 PROFESSIONAL ENGINEER | urban. Planners • Engineers • Landscape Architects • Land Surveyors | Cityplan, Ltd. 7712 Little River Turnpike Annandale, Virginia 22003 Tel 703-647-8280 www.urban-hd.com | PLAN DATE | 05/22/15 |
| | | | | No. DATE | 11/20/17 06/08/18 08/20/18 10/10/18 07/01/19 |
| SCALE: 1"=100' | C.I. = N/A | DATE: MAY, 2015 | | REVISIONS | |

SHEET 2 OF 14

FILE No. ZP-2198



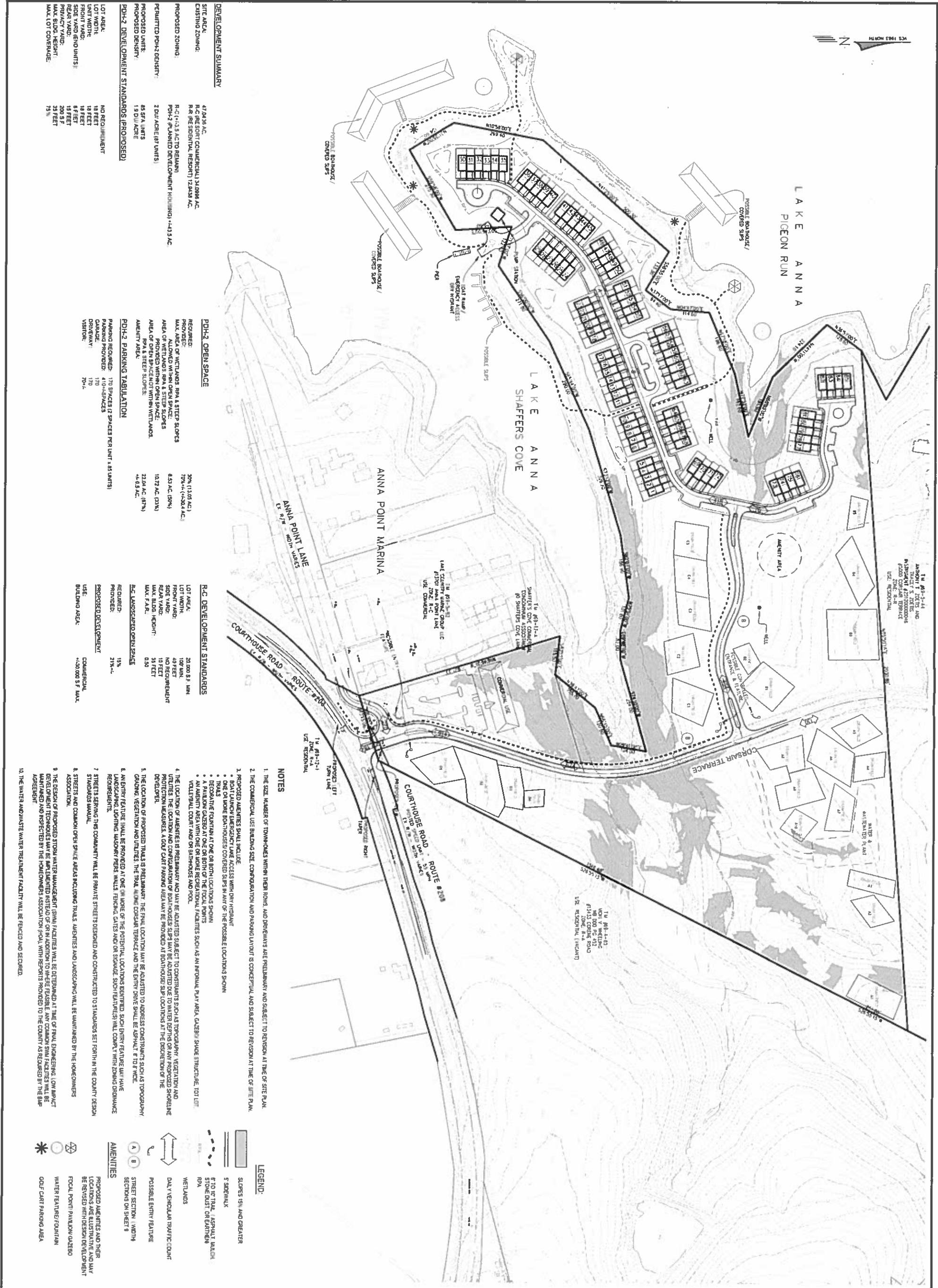
LEGEND

SCALES 1/4" AND GREATER

WETLANDS

RPA

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|---|--|--|---|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| EXISTING CONDITIONS PLAN | |  |  | urban Planners - Engineers - Landscape Architects - Land Surveyors | Urban, Ltd. 7711 Little River Turnpike Annandale, Virginia 22003 Tel: 703.641.2300 www.urban-ld.com | PLAN DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|--|---|--|--|---|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|



GENERALIZED DEVELOPMENT PLAN MASTER ZONING PLAN

POINT SEANNA
REZONING APPLICATION
LIVINGSTON VOTING DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA

SCALE: 1"=120'

C.1 = N/A

DATE: MAY, 2015

COMMONWEALTH OF VIRGINIA

DAVID T. MELLMARKY

PROFESSIONAL ENGINEER

urban

Planning • Engineering • Landscape Architecture • Land Surveys

Urban, Ltd.

7712 Little River Turnpike

Arlington, Virginia 22203

Tel: 703.642.8000

www.urban-hill.com

PLAN DATE

05/22/15

11/20/17

06/08/18

08/20/18

10/10/18

07/01/19

REVISIONS

DATE

DESCRIPTION

SHEET

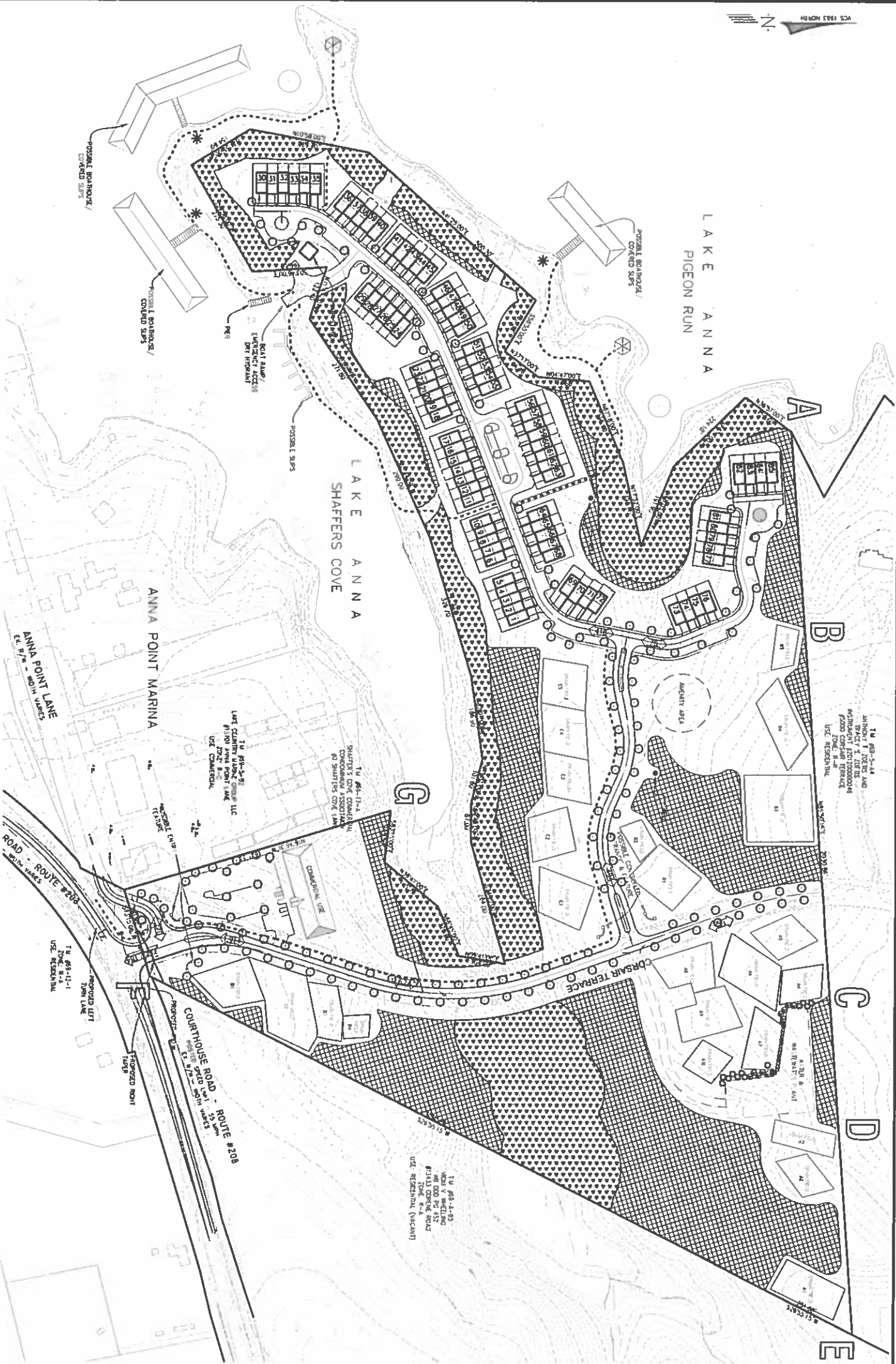
4

OF

14

FILE NO.

ZP-2198



| LEGEND | |
|--------|--|
| | REFERENCE POINT FOR DENOTING LIMITS OF TRANSITIONAL SCREENING |
| | TREE PRESERVATION AREA OUTSIDE OF R.P.A. / APPROX. CLEARING LIMITS |
| | TREE PRESERVATION AREA WITHIN R.P.A. |
| | PROPOSED DECIDUOUS TREES |
| | PROPOSED EVERGREEN TREES |

TRANSITIONAL SCREENING REQUIREMENTS

A-B (NORTH):
PROPOSED SITE USE: RESIDENTIAL (SINGLE FAMILY ATTACHED)
ADJACENT USE: RESIDENTIAL (SINGLE FAMILY DETACHED)
BUFFER REQUIRED: 25' TRANSITIONAL SCREENING TYPE 1
BUFFER PROVIDED: 25' TRANSITIONAL SCREENING TYPE 1- REQUIREMENT TO BE MET THROUGH TREE PRESERVATION

B-C (NORTH):
PROPOSED SITE USE: OPEN SPACE
ADJACENT USE: RESIDENTIAL (SINGLE FAMILY DETACHED)
BUFFER REQUIRED: NONE

C-D (NORTH):
PROPOSED SITE USE: PUBLIC UTILITY
ADJACENT USE: RESIDENTIAL (SINGLE FAMILY DETACHED)
BUFFER REQUIRED: 50' TRANSITIONAL SCREENING TYPE 3
BUFFER PROVIDED: 50' TRANSITIONAL SCREENING TYPE 3- REQUIREMENT TO BE MET THROUGH COMBINATION OF TREE PRESERVATION & SUPPLEMENTAL LANDSCAPE PLANTINGS

D-E (NORTH):
PROPOSED SITE USE: OPEN SPACE
ADJACENT USE: RESIDENTIAL (SINGLE FAMILY DETACHED)
BUFFER REQUIRED: NONE

E-F (EAST):
PROPOSED SITE USE: OPEN SPACE
ADJACENT USE: RESIDENTIAL (VACANT)
BUFFER REQUIRED: NONE

F-G (SOUTH):
PROPOSED SITE USE: COMMERCIAL
ADJACENT USE: COMMERCIAL (MARINA)
BUFFER REQUIRED: NONE

G-A (SOUTHWEST):
PROPOSED SITE USE: RESIDENTIAL (SINGLE FAMILY ATTACHED) / COMMERCIAL
ADJACENT USE: LAKE ANNA
BUFFER REQUIRED: NONE

NOTES

1. DRAINFIELD AREAS AT THRU A10 AND D1 THRU D4 ARE PRIMARY DRAINFIELDS REQUIRED TO SERVE THE RESIDENTIAL AND COMMERCIAL DEVELOPMENTS. DRAINFIELD AREAS B1 THRU B5 AND C1 THRU C5 ARE SECONDARY DRAINFIELDS. IDENTIFIED FOR POSSIBLE FUTURE USE. ALTHOUGH THESE AREAS ARE PROPOSED TO REMAIN WOODED, THEY ARE NOT CREDITED AS PRESERVED AREAS IN THE TREE CANOPY COVER AND TREE PRESERVATION COMPUTATIONS.
2. PERIPHERAL LAND PORTIONS B TO C, D TO E, AND E TO F ARE OPEN SPACE.

TREE CANOPY COVER COMPUTATIONS (PDH-2)

| | |
|--|------------------|
| GROSS SITE AREA: | 1,894,860 SF |
| TREE COVER REQUIREMENT (PDH SINGLE FAMILY ATTACHED): | 370,972 SF (20%) |
| TREE COVER PROVIDED THRU TREE PRESERVATION: | 955,468 SF |
| TREE COVER PROVIDED THRU PROPOSED LANDSCAPING: | 0 SF |
| TOTAL TREE COVER PROVIDED: | 955,468 SF |
| TREE CANOPY COVER COMPUTATIONS (R-C) | |
| GROSS SITE AREA: | 194,339 SF |
| TREE COVER REQUIREMENT (RESORT COMMERCIAL): | 15,436 SF (8%) |
| TREE COVER PROVIDED THRU TREE PRESERVATION: | 22,340 SF |
| TREE COVER PROVIDED THRU PROPOSED LANDSCAPING: | 0 SF |
| TOTAL TREE COVER PROVIDED: | 22,340 SF |

TREE PRESERVATION COMPUTATIONS (PDH-2)

| | |
|--|------------|
| TREE PRESERVATION AREA WITHIN R.P.A. x 1.0 MULTIPLIER: | 330,089 SF |
| TREE PRESERVATION AREA OUTSIDE R.P.A. (14,893 SF) x 1.5 MULTIPLIER (per SPOTSYLVANIA D.S.M. 6-1.2E): | 625,379 SF |
| TOTAL TREE PRESERVATION AREA: | 955,468 SF |

TREE PRESERVATION COMPUTATIONS (R-C)

| | |
|--|-----------|
| TREE PRESERVATION AREA WITHIN R.P.A. x 1.0 MULTIPLIER: | 0 SF |
| TREE PRESERVATION AREA OUTSIDE R.P.A. (14,893 SF) x 1.5 MULTIPLIER (per SPOTSYLVANIA D.S.M. 6-1.2E): | 22,340 SF |
| TOTAL TREE PRESERVATION AREA: | 22,340 SF |

STREET BUFFER REQUIREMENTS

COURTHOUSE ROAD FRONTAGE:
REQUIRED: STREET BUFFER C (WIDTH AND TYPE OF STREET BUFFER C TO BE DETERMINED AT TIME OF FINAL ENGINEERING)

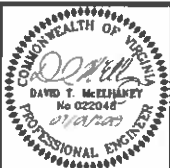
REQUESTED MODIFICATIONS

1. ALONG THE NORTHERN PROPERTY LINE FROM REFERENCE POINT A TO CORNSAR TERRACE, MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENT FOR SINGLE FAMILY USE ADJACENT TO SINGLE FAMILY DETACHED TO ALLOW THE 25' TYPE 1 BUFFER TO BE MET THROUGH TREE PRESERVATION.
2. ALONG THE NORTHERN PROPERTY LINE FROM CORNSAR TERRACE TO REFERENCE POINT E, MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENT FOR LIGHT PUBLIC UTILITY USE ADJACENT TO SINGLE FAMILY DETACHED, ALLOW THE 50' TYPE 3 BUFFER FOR THE WATER AND WASTEWATER PLANT TO BE MET THROUGH A COMBINATION OF TREE PRESERVATION AND SUPPLEMENTAL LANDSCAPE PLANTINGS.

| PLAN DATE | |
|-----------|--|
| 05/22/15 | |
| 11/20/17 | |
| 06/08/18 | |
| 08/20/18 | |
| 10/10/18 | |
| 07/01/19 | |

| No. | DATE | DESCRIPTION |
|-----|------|-------------|
| | | |
| | | REVISIONS |

Urban, Ltd.
7711 Little River Turnpike
Annandale, Virginia 22003
Tel: 703.642.8000
www.urban-ld.com

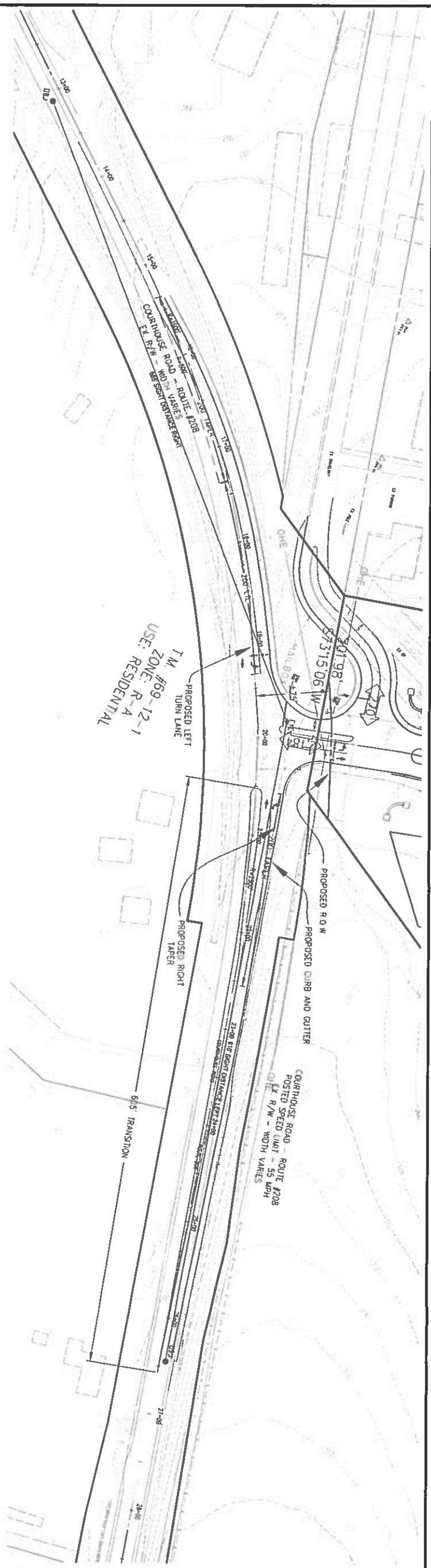


LANDSCAPE PLAN
POINT SEANNA
REZONING APPLICATION
LIVINGSTON VOTING DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA

SCALE: 1"=120'

C.I.= N/A DATE: MAY, 2015

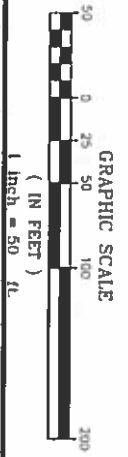
SHEET
7
OF
14
FILE No
27-2198



NOTE: CENTERLINE REFERS TO THE CENTERLINE OF THE EXISTING ROAD AND NOT THE CENTERLINE OF THE PROPOSED ROAD. SEE SHEET 02 FOR TYPICAL DETAIL.

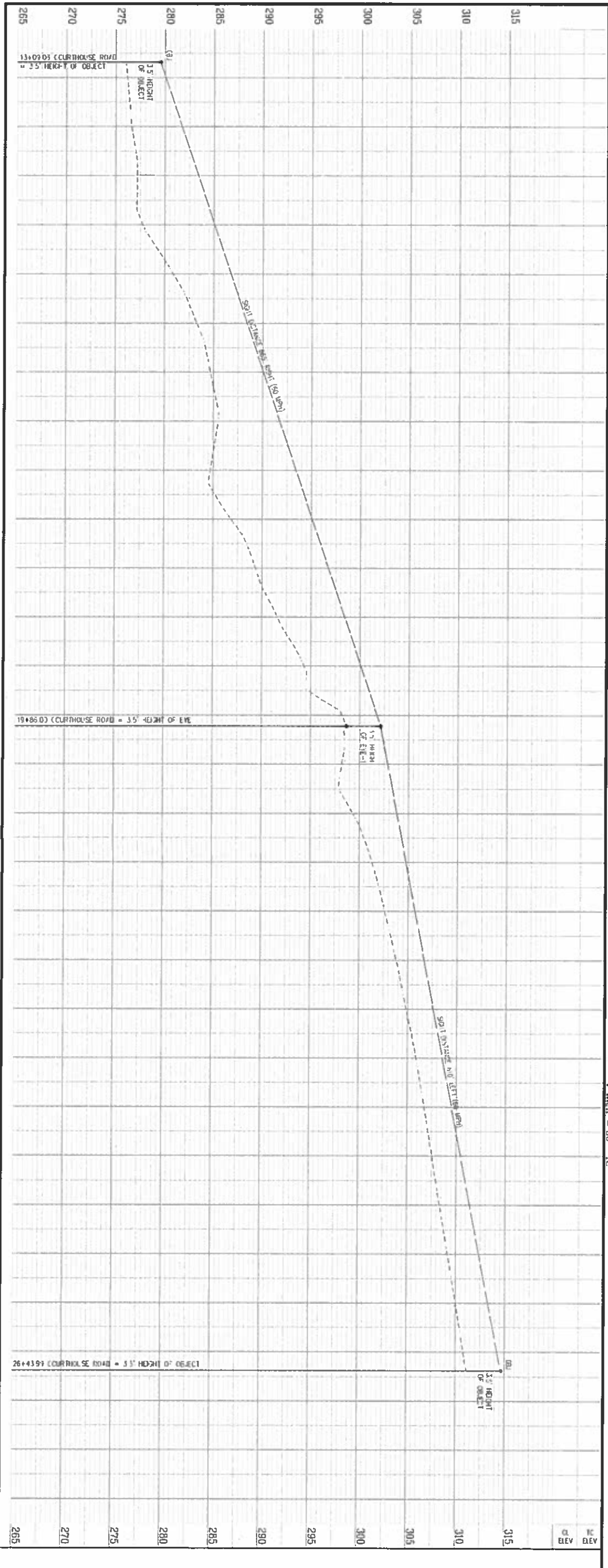
COURTHOUSE ROAD AND CORSAIR TERRACE

55 MPH POSTED SPEED
60 MPH DESIGN SPEED



1 inch = 50 ft

| | | |
|----------|-------|----------|
| PROPOSED | GRADE | EXISTING |
| PROPOSED | GRADE | EXISTING |
| PROPOSED | GRADE | EXISTING |
| PROPOSED | GRADE | EXISTING |



TURN LANE AND SIGHT DISTANCE PROFILE AND DETAILS

**POINT SEANNA
REZONING APPLICATION**
LIVINGSTON VOTING DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA

SCALE: VERT: 1"=5'; HORIZ: 1"=50' C.I.= N/A DATE: MAY, 2015



urban.
Planners · Landscape · Engineers · Architects · Land Services

Urban Ltd.
7711 Landon Drive Temple
Arlington, Virginia 22203
Tel: 703.647.8200
www.urban-ld.com

| PLAN DATE | | REVISIONS | |
|-----------|--|-----------|------|
| 05/22/15 | | No. | DATE |
| 11/20/17 | | | |
| 06/08/18 | | | |
| 08/20/18 | | | |
| 10/10/18 | | | |
| 07/01/19 | | | |

SHEET
8
OF
14
FILE No.
7P-2106



L A K E A N N A
S H A F F E R S C O V E

ANNA POINT MARINA

ANNA POINT LANE
EX R/W - WIDTH VARIES

SAIR TERRACE

COURTHOUSE ROAD - ROUTE #208
POSTED SPEED LIMIT VARIES 35 MPH
EX. R. 11

LOT COVERAGE RATIO AND IMPERVIOUS SURFACE RATIO.

| | |
|-------------------------|----------|
| POH-2 AREA | +6.3% AC |
| SITE AREA | +7.3% AC |
| IMPERVIOUS SURFACE AREA | +7.3% AC |
| ESTIMATED RATIO: | +0.17 |
| R-C AREA | |
| SITE AREA | +6.13 AC |
| IMPERVIOUS SURFACE AREA | +6.13 AC |
| ESTIMATED RATIO: | +0.08 |

LEGEND

APPROXIMATE CLEARING LIMITS

OPEN SPACE

FORESTED AREA

ESTIMATED IMPERVIOUS AREA

MANAGED TURF

BIORETENTION FACILITY

DEVICE - FILTERING

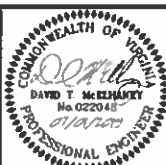
ULTIMATE CONDITIONS WATER QUALITY MAP

**POINT SEANNA
REZONING APPLICATION
LIVINGSTON VOTING DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA**

SCALE: 1"=100'

C.I. = N/A

DATE: MAY 2015



urban.

Planners • Engineers • Landscape Architects • Land Surveyors

Urban, Ltd.
2712 Little River Turnpike
Annandale, Virginia 22003
Tel: 703/642-8000
www.urban-ltd.com

BLKDATE

05/22/15
11/20/17
06/08/18
08/20/18
10/10/18
07/01/19

| No | DATE | DESCRIPTION |
|----|------|-------------|
| | | REVISIONS |

Drainage Area A

Drainage Area A Land Cover (acres)

| | A Scale | B Scale | C Scale | D Scale | Total | Land Cover % |
|---------------------------|---------|---------|---------|---------|-------|--------------|
| Forest/Open Space (acres) | 0.00 | 20.57 | 1.19 | 4.15 | 27.91 | 0.03 |
| Managed Turf (acres) | 0.00 | 10.07 | 0.26 | 0.74 | 10.97 | 0.20 |
| Impervious Cover (acres) | 0.00 | 8.28 | 0.04 | 0.24 | 8.56 | 0.95 |
| Total | | | | | 47.04 | |

total Phosphorus Available for Removal in D.A. A (lb/y)
Post Development Treatment Volume in D.A. A (ft³)

| | |
|-------|--------|
| 23.41 | 37.255 |
|-------|--------|

CLEAR BMP AREAS

Stormwater Best Management Practices (RR = Runoff Reduction)

| Practice | Runoff Reduction Credit (%) | Managed Turf Credit Area (acres) | Impervious Cover Credit Area (acres) | Volume from Upstream Practice (ft³) | Runoff Reduction (ft³) | Remaining Runoff Volume (ft³) | Total BMP Treatment Volume (ft³) | Phosphorus Removal Efficiency (%) | Phosphorus Load from Upstream Practice (lb) | Untreated Phosphorus Load to Practice (lb) | Phosphorus Removed by Practice (lb) | Remaining Phosphorus Load (lb) | Downstream Practice to be Employed |
|--|-----------------------------|----------------------------------|--------------------------------------|-------------------------------------|------------------------|-------------------------------|----------------------------------|-----------------------------------|---|--|-------------------------------------|--------------------------------|------------------------------------|
| 6. BioRetention #19 | | | | | | | | | | | | | |
| 6a. BioRetention #1 or Macro BioRetention #1 or Urban BioRetention (Spec #9) | 40 | 2.73 | 4.45 | 0 | 6,518 | 20,405 | 17,344 | 35 | 0.00 | 32.88 | 5.99 | 4.90 | |
| 6 B. BioRetention #2 or Macro BioRetention #2 (Spec #9) | 80 | | | 0 | 0 | 0 | 0 | 50 | 0.00 | 0.00 | 0.00 | 0.00 | |

TOTAL IMPERVIOUS COVER TREATED (ac)
TOTAL MANAGED TURF AREA TREATED (ac)
TOTAL RUNOFF REDUCTION IN D.A. A (ft³)

| | | |
|------|------|-------|
| 4.45 | 2.73 | 6.938 |
|------|------|-------|

AREA CHECK: OK
AREA CHECK: OK

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/y)
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/y)
TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. A (lb/y)

| | | |
|-------|------|-------|
| 23.41 | 5.99 | 17.42 |
|-------|------|-------|

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

| Nitrogen Removal Efficiency (%) | Nitrogen Load from Upstream Practices (lbs) | Untreated Nitrogen Load to Practice (lbs) | Nitrogen Removed by Practice (lbs) | Remaining Nitrogen Load (lbs) |
|---------------------------------|---|---|------------------------------------|-------------------------------|
| 40 | 0.00 | 77.87 | 40.84 | 28.03 |
| 80 | 0.00 | 0.00 | 0.00 | 0.00 |

TOTAL RUNOFF REDUCTION IN D.A. A (ft³)
TOTAL NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/y)

| | |
|-------|-------|
| 6.938 | 49.84 |
|-------|-------|

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS (Information Only)

| | | | | | | | | | | | | | |
|--|---|--|------|---|---|-------|-------|----|------|------|------|------|--|
| 14. Manufactured Treatment Device (see #8) | | | | | | | | | | | | | |
| Hydrophobic | | | | | | | | | | | | | |
| 14a. Manufactured Treatment Device-Filtering | 0 | | | 0 | 0 | 0 | 0 | 30 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 14b. Manufactured Treatment Device-Filtering | 0 | | 0.66 | 0 | 0 | 2.776 | 2.776 | 50 | 0.00 | 1.43 | 0.71 | 0.71 | |
| 14c. Manufactured Treatment Device-Genetic | 0 | | | 0 | 0 | 0 | 0 | 20 | 0.00 | 0.00 | 0.00 | 0.00 | |

TOTAL IMPERVIOUS COVER TREATED (ac)
TOTAL MANAGED TURF AREA TREATED (ac)

| | |
|------|------|
| 5.11 | 2.73 |
|------|------|

AREA CHECK: OK
AREA CHECK: OK

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/y)
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/y)
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/y)

| | | |
|-------|------|------|
| 73.41 | 0.71 | 5.99 |
|-------|------|------|

TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/y)

| |
|-------|
| 16.71 |
|-------|

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/y)
NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/y)

| | |
|-------|------|
| 49.84 | 0.00 |
|-------|------|

TOTAL NITROGEN REMOVED IN D.A. A (lb/y)

| |
|-------|
| 49.84 |
|-------|

WATER QUALITY NARRATIVE

THE EXISTING SITE CONSISTS OF DENSE WOOD, A STRIP OF OPEN AREA FOR OVERHEAD ELECTRIC, AND CORSAIR TERRACE (PRIVATE ROADWAY) THAT RUNS THROUGH THE SITE.

THE URBAN RUNOFF REDUCTION METHOD SPREADSHEET HAS BEEN USED TO PRELIMINARILY EVALUATE THE WATER QUALITY REDUCTIONS THAT THE PROPOSED DEVELOPMENT ABOVE. THE PRELIMINARY ANALYSIS OF WATER QUALITY SHOWS THAT THE PROPOSED DEVELOPMENT ABOVE WILL MEET THE REQUIREMENT OF APPROXIMATELY 25.88 LBS/YEAR. THE SITE REQUIRES A TP LOAD REDUCTION OF 6.29 LBS/Y. THIS REQUIREMENT WILL BE MET THROUGH THE USE OF ON-SITE BIORETENTION FACILITIES AND MANUFACTURED TREATMENT DEVICES FOR IMPERVIOUS PARKING AREAS. ADDITIONALLY, OFF-SITE WATER QUALITY CREDITS MAY BE PURCHASED TO MEET MINIMUM REQUIREMENTS. THE COMPUTATIONS SHOWN ON THIS SHEET ARE FOR PRELIMINARY PURPOSES ONLY AND ARE SUBJECT TO CHANGE BASED ON FINAL ENGINEERING, AREA OF IMPERVIOUS COVER INCLUDES POSSIBLE FUTURE ADJUNCT AREA.

NOTE: THE INFORMATION ON THIS SHEET IS FOR GPP APPROVAL ONLY AND THE FIGURES ARE PRELIMINARY AT THIS TIME. THEY ARE NOT INTENDED TO PROVIDE ANY FORM OF SPECIFIC DESIGN CRITERIA FOR ANY BMPs. DETAILED CALCULATIONS WILL BE PROVIDED WITH FUTURE SUBMISSIONS.

| NO. | DATE | DESCRIPTION |
|-----------|------|-------------|
| REVISIONS | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | |
|-----------|----------|
| PLAN DATE | 05/22/15 |
| | 11/20/17 |
| | 06/08/18 |
| | 08/20/18 |
| | 10/10/18 |
| | 07/01/19 |

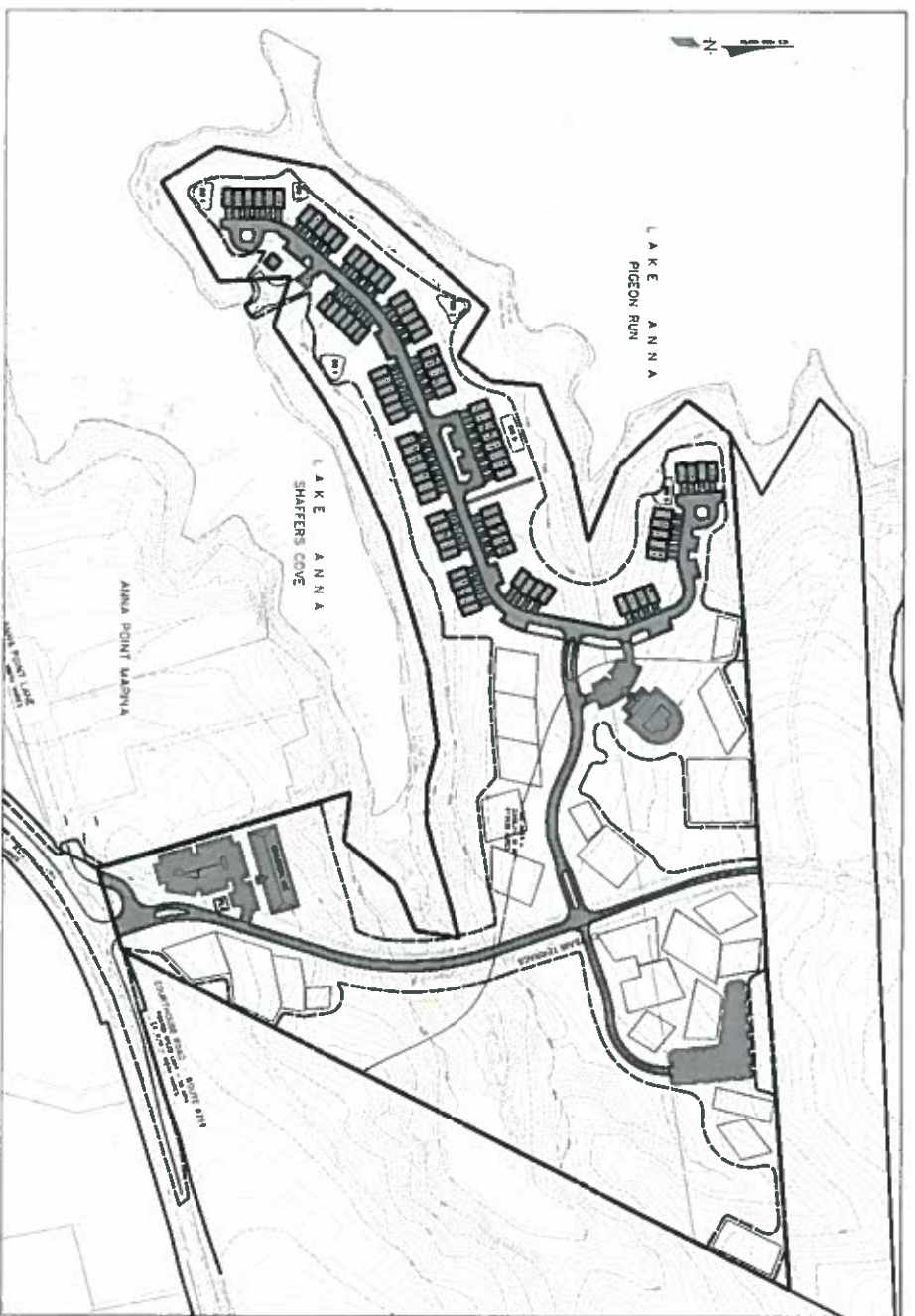
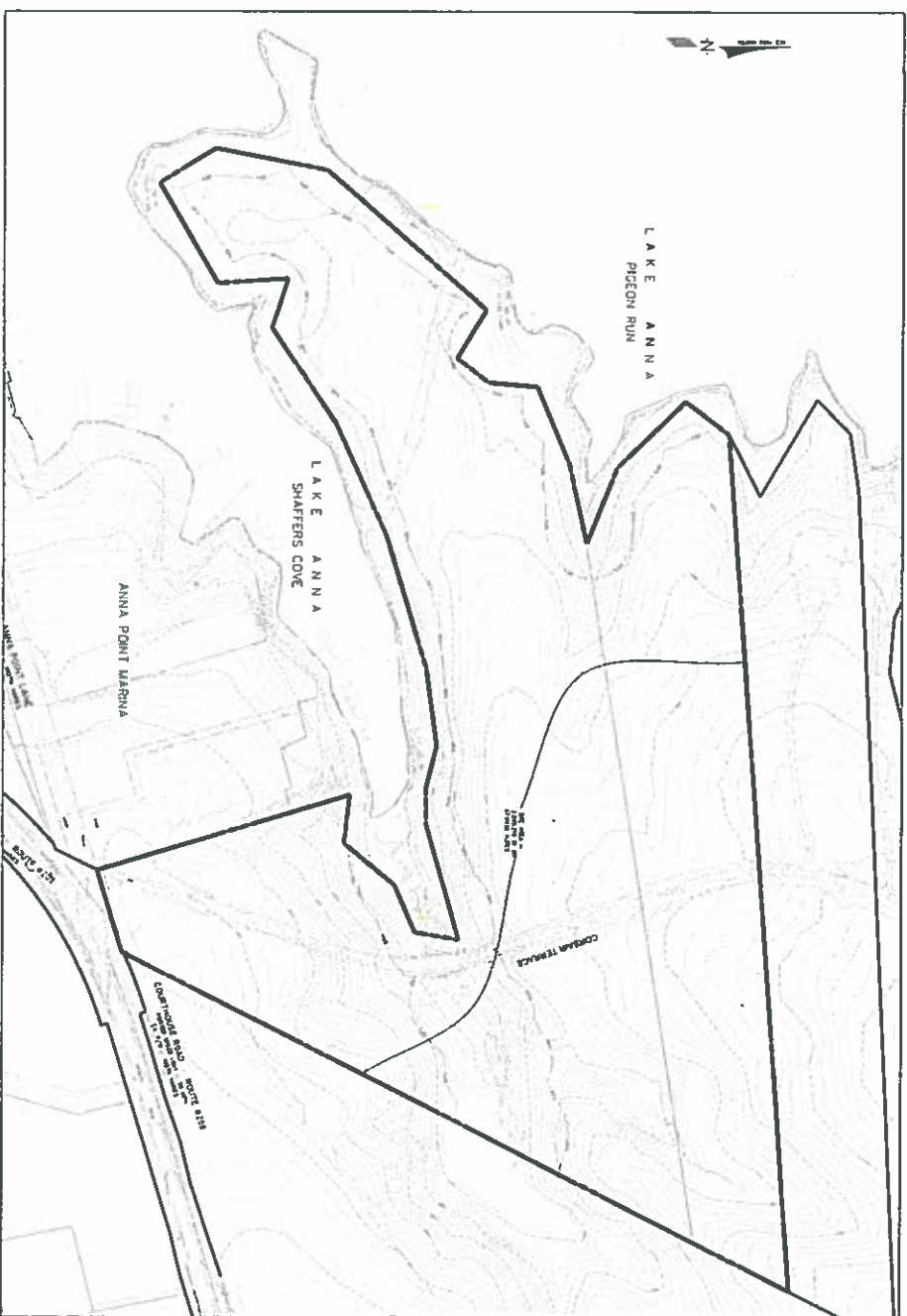
15000 LAL
7712 Little River Turnpike
Annandale, Virginia 22003
Tel: 703.642.9780
www.urban-bd.com

urban
Planners • Engineers • Landscape Architects • Land Surveyors



| | | |
|---|----------|-----------------|
| ULTIMATE CONDITIONS WATER QUALITY COMPS | | |
| POINT SEANNA REZONING APPLICATION LIVINGSTON VOTING DISTRICT SPOTSYLVANIA COUNTY, VIRGINIA | | |
| SCALE: 1"=100' | C.T.=N/A | DATE: MAY, 2015 |

| | |
|----------|---------|
| SHEET | 11 |
| OF | 14 |
| FILE No. | 7B-2198 |



PRE-DEVELOPMENT AREA MAP

POST-DEVELOPMENT AREA MAP

POINT SEAHNA
PREDEVELOPMENT CWS
AREA:

| LAND USE | AREA Acres | SOIL TYPE | PRODUCT C/A | |
|--|---------------|--------------|----------------|---------|
| | | | CH TABLE 1 | C/A |
| FORESTED | 38.43 | E | 53 | 2008.40 |
| FORESTED | 1.3 | F | 70 | 240.10 |
| FORESTED | 4.34 | D | 77 | 334.18 |
| MEADOW | 0.48 | B | 61 | 26.88 |
| MEADOW | 0.07 | C | 6 | 5.13 |
| GRASSLAND | 1.07 | B | 14 | 90.78 |
| GRASSLAND | 0.22 | D | 60 | 17.00 |
| BUILDINGS/POULTRY ACCESSORY STRUCTURES | 0.48 | D | 60 | 43.68 |
| BUILDINGS/POULTRY ACCESSORY STRUCTURES | 0.07 | D | 68 | 6.36 |
| TOTAL SITE AREA (AC) | | | 41.64 | |
| TOTAL CH # A | | | | 3778.67 |
| COMPOSITE CH | | | 88.0 | |

STORM WATER MANAGEMENT (SWM) NARRATIVE

DUE TO THE CLOSE PROXIMITY OF THE LAKE, IT IS NOT ANTICIPATED THAT SWM FACILITIES WILL BE REQUIRED. IF, AT TIME OF FINAL ENGINEERING IT IS DETERMINED THAT DRAINAGE OUTFALLS ARE NOT SUFFICIENT SWM FACILITIES WILL BE PROPOSED THAT MAY INCLUDE REDISTRIBUTION FACILITIES, PERMANENT CHECK DAMS, INFILTRATION SYSTEMS, AND/OR DETENTION POUNDS.

PRE-DEVELOPMENT AND POST-DEVELOPMENT RUNOFF RATES AND VOLUMES FOR THE 1-YEAR, 2-YEAR, AND 10-YEAR STORMS HAVE BEEN IDENTIFIED IN THE TABLE BELOW. THE POST-DEVELOPMENT FLOWS AND VOLUMES ARE SHOWN AS APPROXIMATE VALUES AND ARE SUBJECT TO CHANGE BASED ON FINAL ENGINEERING.

NOTE: THE INFORMATION ON THIS SHEET IS FOR GDP APPROVAL ONLY AND THE FIGURES ARE PRELIMINARY AT THIS TIME. THEY ARE NOT INTENDED TO PROVIDE ANY FORM OF SPECIFIC DESIGN CRITERIA FOR ANY BIRPS. DETAILED CALCULATIONS WILL BE PROVIDED WITH FUTURE SUBMISSIONS.

POINT SEANNA PRE AND POST DEVELOPMENT RUNOFF RATES

| STORM EVENT | EXISTING VOLUME OF RUNOFF (CUBIC FEET) | DOTTING PUMP FLOW RATE OR RUNOFF (CFS) | PROPOSED VOLUME OF RUNOFF (CUBIC FEET) | PROPOSED PUMP FLOW RATE OR RUNOFF (CFS) |
|-------------|--|--|--|---|
| 1-YEAR | 34,993.00 | 3.05 | 74,865.00 | 20.3 |
| 2-YEAR | 67,774.00 | 4.91 | 127,756.00 | 32.33 |
| 10-YEAR | 207,887.00 | 39.95 | 304,323.00 | 102.33 |

VOLUME AND RUNOFF RATES WERE COMPUTED USING DENTLEY POND PACK V81

Drainage Area Curve Numbers and Runoff Depths •

Curve numbers (CN, CNadj) and runoff depths (RV_{drainage}) are computed with and without reduction practices.

| Drainage Area A | | | | | Total Area (acres): 47.04 |
|---|--------------|---------|---------|---------|---------------------------|
| Forest/Open Space - undisturbed, protected forest/open space or reforested and managed turf - disturbed, graded for yards or other turf to be mowed/managed | Area (acres) | A Soils | B Soils | C Soils | D Soils |
| | CN | 30 | 55 | 70 | 77 |
| | Area (acres) | 0.00 | 10.07 | 0.26 | 0.24 |
| | CN | 39 | 61 | 74 | 80 |
| | Area (acres) | 0.00 | 8.28 | 0.04 | 0.24 |
| Impervious Cover | CN | 98 | 98 | 99 | 99 |

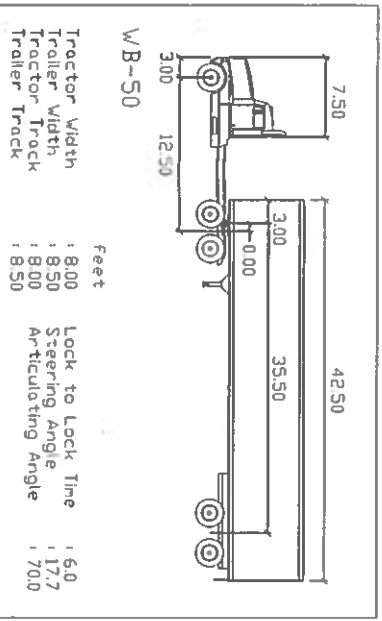
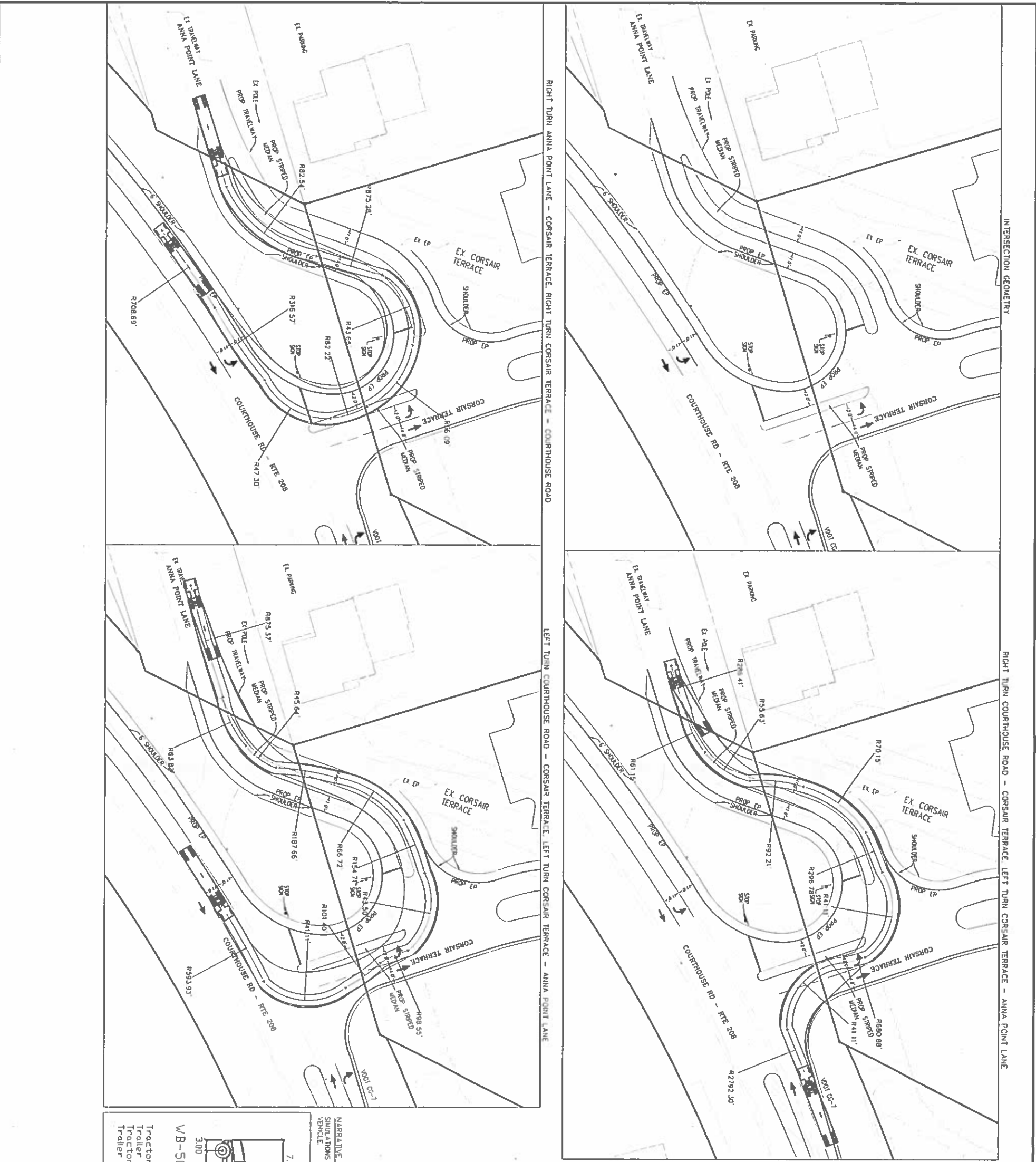
| | 1-year storm | 2-year storm | 10-year storm |
|--|--------------|--------------|---------------|
| R _V developed (watershed-level) with no Runoff Reduction* | 0.44 | 0.72 | 1.78 |
| R _V developed (watershed-level) with Runoff Reduction* | 0.44 | 0.72 | 1.78 |
| Adjusted CN* | 67 | 67 | 67 |

| CN _{0.44} |
|--------------------|
| 67 |

| Total Area (acres): 47.04 |
|--|
| Runoff Reduction Volume (ft ³) |
| 0 |

Runoff Volume and CN Calculations

| | 1-year storm | 3-year storm | 10-year storm | | |
|----------------------------|-------------------|-----------------|-----------------|------|------|
| Target Rainfall Event (in) | 2.69 | 3.26 | 4.97 | | |
| Drainage Areas | | | | | |
| CN | RV & CN | Drainage Area A | Drainage Area B | | |
| | | Drainage Area C | Drainage Area D | | |
| | | Drainage Area E | Drainage Area F | | |
| RR (ft³) | 67 | 0 | 0 | 0 | 0 |
| 1-year return period | RV no det (yr+sh) | 0.84 | 0.00 | 0.00 | 0.00 |
| | RV w det (yr+sh) | 0.84 | 0.00 | 0.00 | 0.00 |
| | CN adjusted | 67 | 0 | 0 | 0 |
| 3-year return period | RV no det (yr+sh) | 0.72 | 0.00 | 0.00 | 0.00 |
| | RV w det (yr+sh) | 0.72 | 0.00 | 0.00 | 0.00 |
| | CN adjusted | 67 | 0 | 0 | 0 |
| 10-year return period | RV no det (yr+sh) | 1.78 | 0.00 | 0.00 | 0.00 |
| | RV w det (yr+sh) | 1.78 | 0.00 | 0.00 | 0.00 |
| | CN adjusted | 67 | 0 | 0 | 0 |



NOT TO SCALE

NARRATIVE
SIMULATIONS PERFORMED USING AUTOTURN 10 WITH A STANDARD AASHROAD 2004 WB-50 VEHICLE

AUTOTURN ANALYSIS
**POINT SEANNA
REZONING APPLICATION**
LIVINGSTON VOTING DISTRICT
SPOTSYLVANIA COUNTY, VIRGINIA

SCALE: 1"=30'
C.I.=N/A
DATE: MAY, 2015



| PLAN DATE | | REVISIONS | |
|-----------|------|-------------|--|
| 05/22/15 | | | |
| 11/20/17 | | | |
| 06/08/18 | | | |
| 08/20/18 | | | |
| 10/10/18 | | | |
| 07/01/19 | | | |
| No. | DATE | DESCRIPTION | |
| | | | |

SHEET
14
OF
14
FILE No.
ZP-2198

March 22, 2018

Christian P. Kaila & Associates

6320 Five Mile Centre Park, Suite 323

Fredericksburg, Va. 22407

To Whom It May Concern,

This letter is written per request of Mr. Hunter for consulting services to review current market data for the potential development of waterfront townhomes at Lake Anna in Spotsylvania County. I reviewed data of existing townhomes and new construction townhomes in the Spotsylvania market area. Also, I have reviewed the limited market data of the waterfront townhomes located on Lake Anna in Louisa County. (Lake Anna Plaza).

I have provided a spread sheet with the market data of townhome sales from existing to new construction and provided average dollar per square foot based on sale prices reviewed. The square foot used in the spreadsheet is based on above grade living area and all data provided have a basement or three level townhomes. All data has been reviewed and compared in the same fashion to give credible results. The dollar per square foot includes the build out of three level townhomes or two level townhomes with a basement. You will see the average price per square foot of the existing townhomes with no water influence is \$139. With the existing townhomes you will notice a variance in sale price due to the condition of the property at the time of sale with regards to updates and upgrades. The average price per square foot of the new construction townhomes is \$170 based on options and upgrade packages at the time of build. I then reviewed the sale data for waterfront townhomes in Louisa County, as this is the best data available to illustrate the influence on the dollar per square for waterfront townhomes. The waterfront townhomes have an average of \$261 per square which is an increase of \$122 per square foot over the existing town home sales and a \$91 dollar increase per square foot over the new construction townhomes.

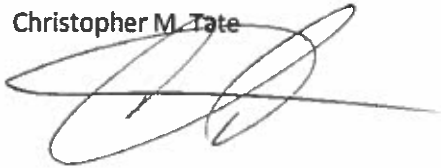
Per the data reviewed combined with the spreadsheet data the appraiser notes there is a positive influence on the value of the townhomes that are waterfront. I have estimated the positive influence on the dollar per square foot to be a range of \$90-\$115 per square foot based on the new construction average dollar per square foot. The appraiser notes based on the data the new construction waterfront town homes dollar per square foot should range from \$260-\$285.

The appraiser has inserted some photos of the new comparable townhomes reviewed and the waterfront townhomes reviewed to help illustrate the data. With the new construction sales the price

per square foot will vary to some degree from builder to builder based on upgrades offered at the time of build.

In closing the appraiser notes the Lake Anna market area has proven to have a positive influence on the real estate sales with water orientation, with the highest percentage of increase being waterfront properties. Furthermore, the Lake Anna market area has produced some of the highest property values for residential sales in Spotsylvania County as a whole.

Christopher M. Tate



Appraisal Group of Fredericksburg/Christian P. Kaila & Associates

EXIT Elite Realty

Fredericksburg VA, 22407

540-379-3137 Cell

540-786-4500 Office Appraisals

540-785-2002 Office Sales

Licensed Real Estate Appraiser/Expert Witness

Licensed Realtor Commonwealth of Virginia

Serving in Real Estate For Over 15 Years

| Existing Non-WF | Sale Date | Sale Price | Size(SF) | Price/SF | Louisiana Lake Anna WF | Sale Date | Sale Price | Size(SF) | Price/SF | Non-Waterfront: New Construction | Sale Date | Sale Price | Size(SF) | Price/SF |
|----------------------------|------------|------------|----------|----------|------------------------|-----------|------------|----------|----------|----------------------------------|------------|------------|----------|----------|
| 7028 Wytheville Circle | 12/6/2017 | \$215,000 | 1,680 | \$128 | 286 Lake Front Drive | 5/12/2013 | \$400,000 | 1,560 | \$256 | 1500 Hudgens Farm Circle | 7/17/2017 | \$309,999 | 1,760 | \$176 |
| 4013 Fountain Bridge Court | 12/30/2017 | \$217,500 | 1,504 | \$145 | 300 Lake Front Drive | 7/1/2016 | \$417,000 | 1,560 | \$267 | 1617 Hudgens Farm Circle | 7/1/2016 | \$301,340 | 1,760 | \$171 |
| 7113 Finch Lane | 10/10/2017 | \$166,000 | 1,398 | \$119 | 266 Lake Front Drive | 8/2/2016 | \$400,000 | 1,560 | \$256 | 1502 Hudgens Farm Circle | 6/23/2017 | \$300,999 | 1,760 | \$171 |
| 4603 Turnberry Drive | 3/5/2018 | \$228,000 | 1,692 | \$135 | 264 Lake Front Drive | 10/5/2015 | \$410,000 | 1,560 | \$263 | 1621 Hudgens Farm Circle | 2/23/2018 | \$318,000 | 1,760 | \$181 |
| 7307 Wytheville Circle | 12/29/2017 | \$229,900 | 1,680 | \$137 | | | | | | 4933 Wensel Road | 4/17/2017 | \$274,245 | 1,680 | \$163 |
| 7209 Wytheville Circle | 1/4/2018 | \$214,000 | 1,680 | \$129 | | | | | | 4711 Wensel Road | 11/3/2017 | \$275,715 | 1,680 | \$164 |
| 7221 Wytheville Circle | 1/18/2018 | \$235,000 | 1,680 | \$140 | | | | | | 2228 Mallard Landing | 8/17/2017 | \$277,731 | 1,540 | \$180 |
| 11110 Gander Court | 12/11/2017 | \$237,000 | 1,680 | \$141 | | | | | | 4807 Wensel Road | 10/10/2017 | \$279,205 | 1,680 | \$166 |
| 4544 Alliance Way | 1/23/2018 | \$248,000 | 1,440 | \$172 | | | | | | 4729 Wensel Road | 12/14/2017 | \$282,000 | 1,680 | \$168 |
| Averages | | \$223,378 | 1,604 | \$139 | | | \$406,750 | 1,560 | \$261 | 4645 Wensel Road | 8/10/2017 | \$281,500 | 1,680 | \$168 |
| | | | | | | | | | | 1416 Teagan Road | 3/10/2017 | \$321,969 | 1,952 | \$165 |
| | | | | | | | | | | Averages | | \$292,973 | 1,721 | \$170 |

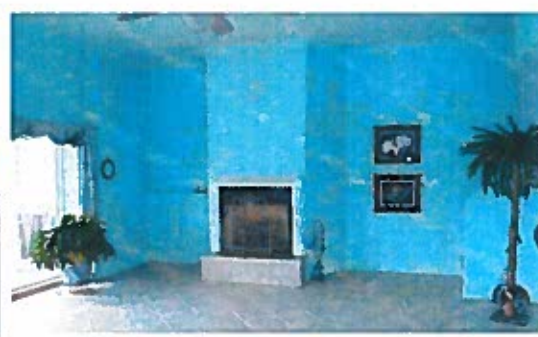
Townhomes at Lakeside

| | | | |
|------------------|-------------|-------|----------|
| Lender | | | |
| Property Address | Wensel Road | | |
| City | County | State | Zip Code |
| Lender | | | |



Waterfront Townhomes at Lake Anna Plaza

| | | | |
|------------------|---------------------|-------|----------|
| Lender | | | |
| Property Address | Hudgins Farm Circle | | |
| City | County | State | Zip Code |
| Lender | | | |



Summerfield Townhomes

| | | | |
|------------------|---------------------|--------|----------------|
| Lender | | | |
| Property Address | Hudgins Farm Circle | | |
| City | | County | State Zip Code |
| Lender | | | |





December 8, 2014

Mr. Ken Baybutt
Bowman Consulting
460 McLaws Cir, Suite 120
Williamsburg, VA 23185

Re: Corsair Terrace Project, Spotsylvania County, Virginia
Via email to Ken Baybutt <kbaybutt@bowmanconsulting.com>

Dear Mr. Baybutt,

Maevelle Energy, LLC (ME) is pleased to provide you with this report concerning our preliminary evaluation of the Corsair Terrace Properties site in Spotsylvania County, Virginia. We evaluated the site for water supply potential based on existing information and a brief site visit. The property in question is located along the northeastern shore of the northwest-southeast trending Lake Anna. The site is just to the north of Courthouse Road (State Route 208), and straddles a small private road named Corsair Terrace which ends a few hundred yards past the site to the north. A majority of the site consists a peninsula jutting into Lake Anna to the west of Corsair Terrace road; bounded by Shaffer's Cove to the south and Pigeons Run to the north. A portion of the site also lies to the east of Corsair Terrace road. The site is 46.97 acres and includes Spotsylvania County lots 69-5-A5 and 69-5-B.

An 81 unit housing development is proposed for the property which would be served by a public water system fed by at least two water wells. The average day demand for the project based on design flows of 360 gal/day/unit is 29,160 gal/day, or 20.25 gal/min over a 24 hour period. Using a typical peaking factor of two, as is often done when designing a new public water system with no record of flow monitoring, a total yield of around 40 gpm should be planned to meet peak demands. State of Virginia regulations call for at least 0.5 gpm of flow for each unit, so this would also translate into a required total yield of 40.5 gpm. A minimum of two wells are planned to supply this total demand, providing some redundancy in the system, and satisfying requirements that a system of this size be served by two wells.

Our preliminary evaluation consisted of a non-stereoscopic fracture trace analysis, examination of existing geologic mapping, a review of a previous studies in the area, an analysis of nearby well information using federal databases, and a site visit. Based on this information, the site has a strong likelihood of finding sufficient water to meet demands, although there is of course no guarantee of that. I have identified several areas where wells might be promising. Depending on site plans, access, and other factors, these areas should be further investigated to determine

Maevelle Energy, LLC
11921 Freedom Drive, Suite 550
Reston, VA 20190
www.maevelleenergy.com

exact drilling locations. This would include a more detailed study of nearby wells, additional remote sensing and fracture trace analysis, and most importantly **on-site geophysical surveying**, to identify exact drilling sites.

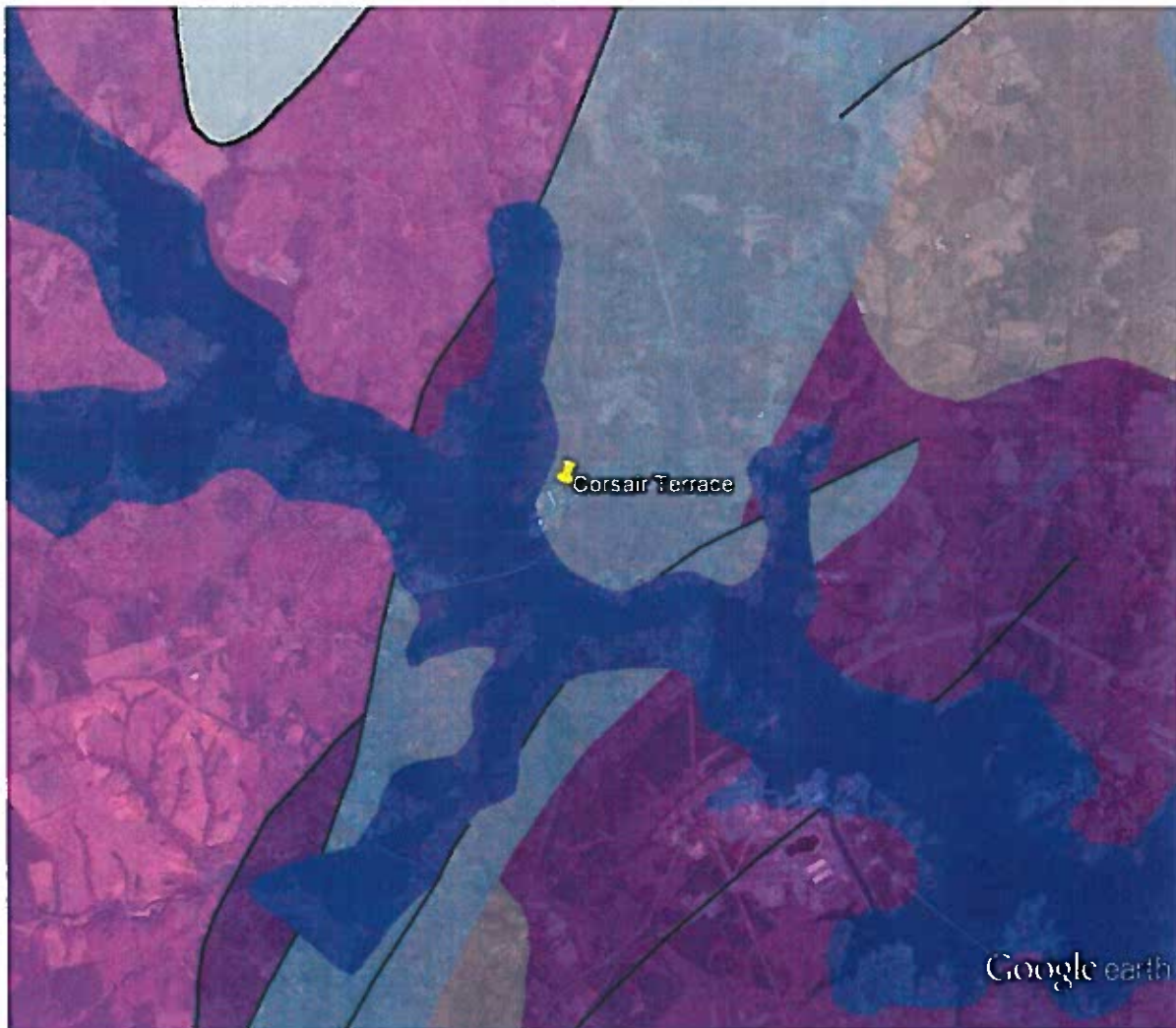
The site is considered to be favorable for producing the required volumes of water based on the following findings.

1. Existing Geologic Mapping

The review of existing geologic mapping shows the site to be underlain by the Quantico Formation, a slate or porphyroblastic schist, locally containing felsic metatuff, metagreywacke, with micaceous quartzite interbeds. (Digital Representation of the 1993 Geologic Map of Virginia", 2003). This is a metamorphic rock, where water is transmitted through faults and fractures in the rock. The rock type itself is somewhat favorable for the formation of fractures, with the quartzite interbeds being particularly suited to fracturing. Some of the largest yielding wells in the area are drilled into this formation, including those serving the Village of Mineral. Locating high yielding wells in this unit (or any type of crystalline metamorphic rock) requires locating major fracture zones or faults; these being the zones transmitting large volumes of water.

In addition to favorable rock type, the contacts between the Quantico formation and the adjacent geologic units are mapped as major faults (prime areas for groundwater movement). There are several major faults passing through the Quantico formation, the site being situated between two of these mapped major faults, and on strike with a third to the north. Because of this, it is possible that the fault to the north extends under the site, and/or that smaller unmapped faults might exist on the property. Faults, and the areas near them, are usually the best areas for drilling in metamorphic rocks, and they can often be detected using geophysical methods.

Figure 1 Quantico Formation (grey) and nearby faults (black lines)

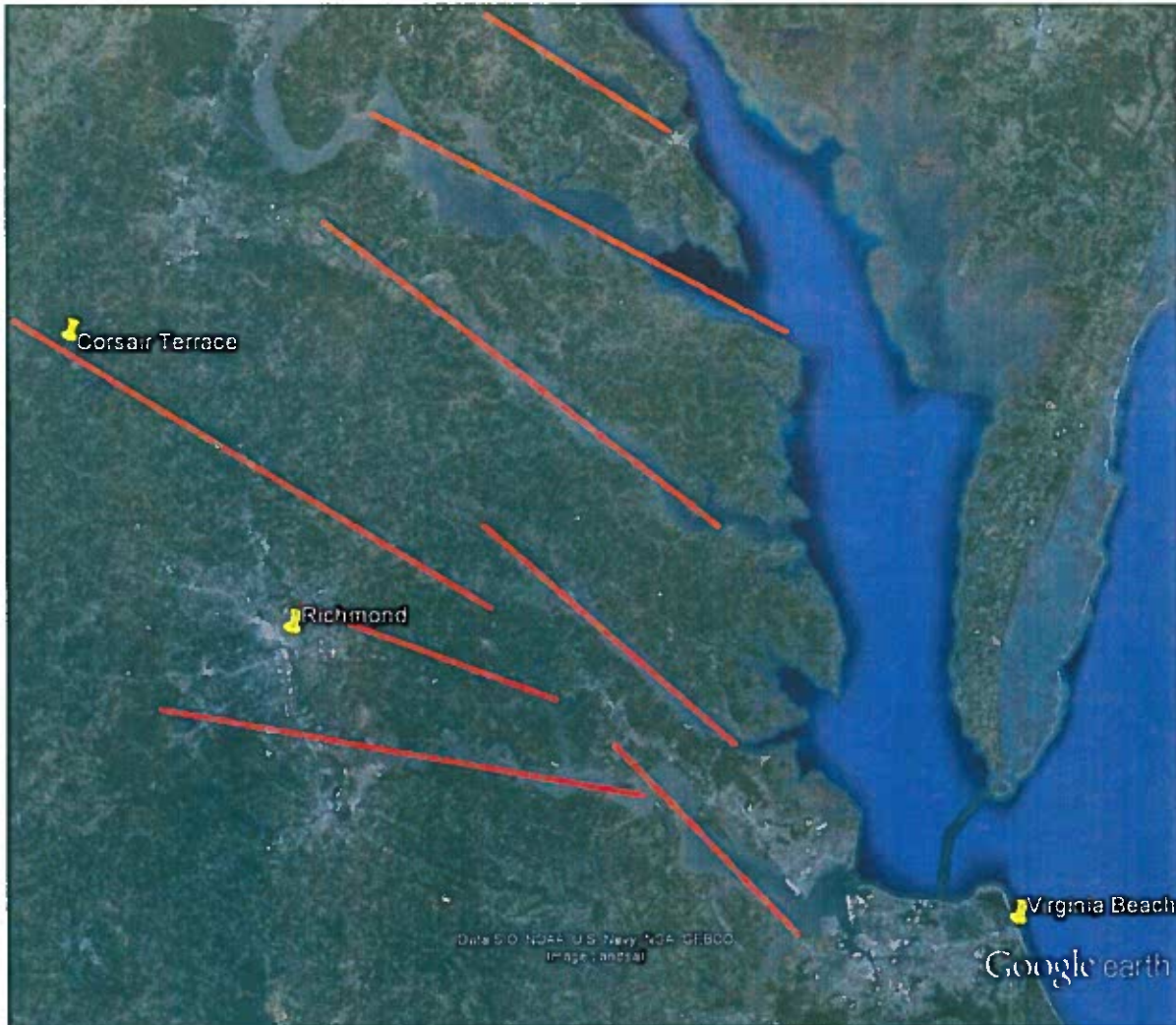


2. Fracture Trace Analysis

Because groundwater flows in fractures in this type of rock, a very limited analysis of fracture patterns was undertaken using Google Earth imagery. The analysis first looks at very large, regional patterns. Lineaments were mapped and are shown below in Figure 2. The long axis of Lake Anna is observed to follow a major lineament; one that is consistent with other large scale lineaments in the region controlling major drainage basins. This major lineament passes very close to (or perhaps even under) the site. It is

a very favorable location for drilling, in fact the most favorable in the area. In general, the closer to this lineament one drills, the higher the probability of success.

Figure 2: Regional Fracture Pattern



Closer examination of the areas surrounding Lake Anna reveals a more detailed pattern of fractures, Figures 3 and 4 below, indicating the site as being in a very favorable location at the intersection of several significant lineaments. Note the very large lineament trending almost east west and passing near and perhaps through the site. Several large yielding wells are a located along the trace of this lineament, which controls the orientation of the east trending branch of the North Anna River as it forks to the northwest of the site. This east west lineament intersects the 'Lake Anna Lineament' in the vicinity of the site as well as another north south trending lineament in the area;

which passes along the eastern side of Lake Anna State Park (which also has a good yielding well) and to the west of our site. This north south lineament controls the orientation of Pigeons Run.

Figure 3: Local Fracture Pattern

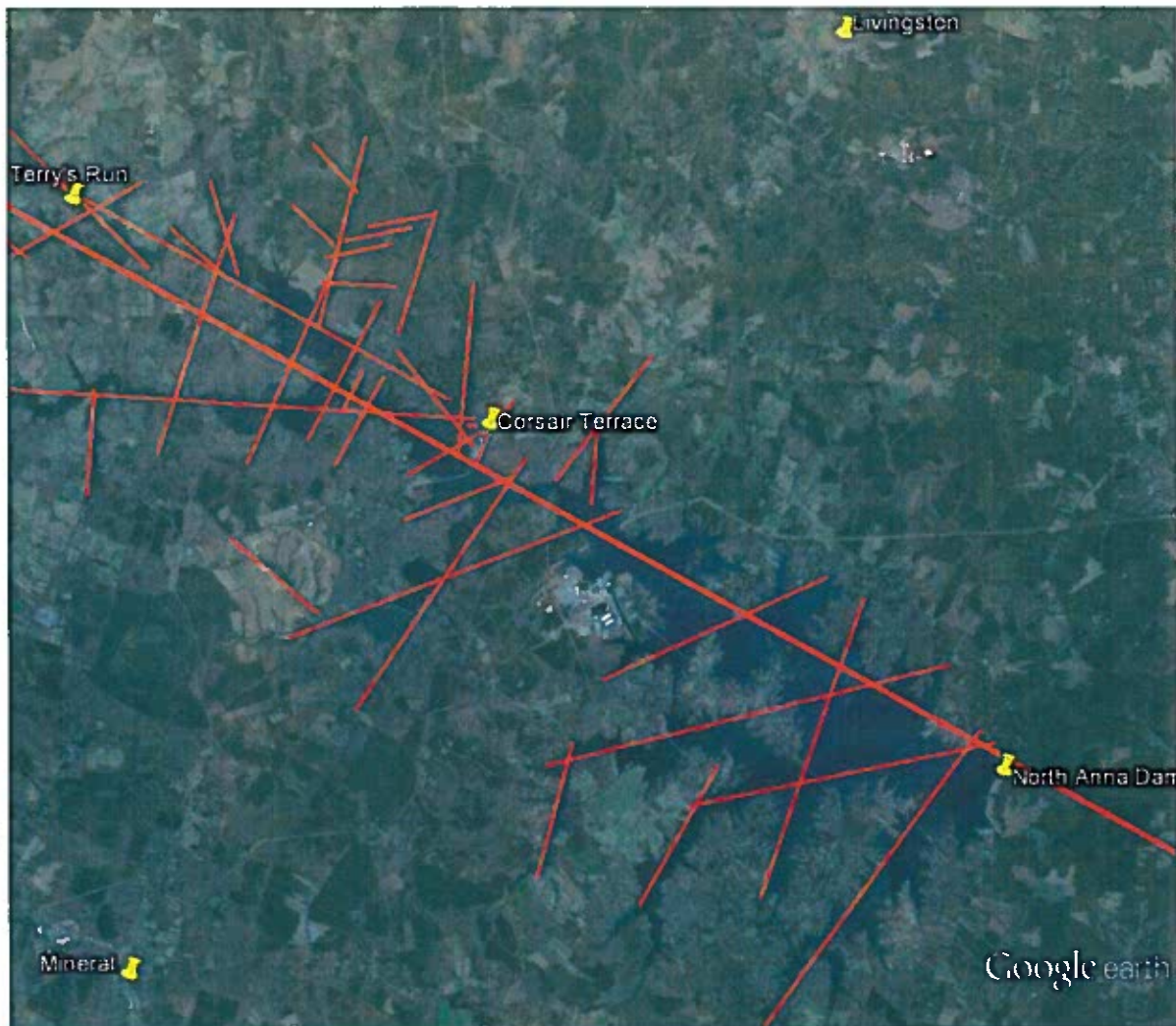
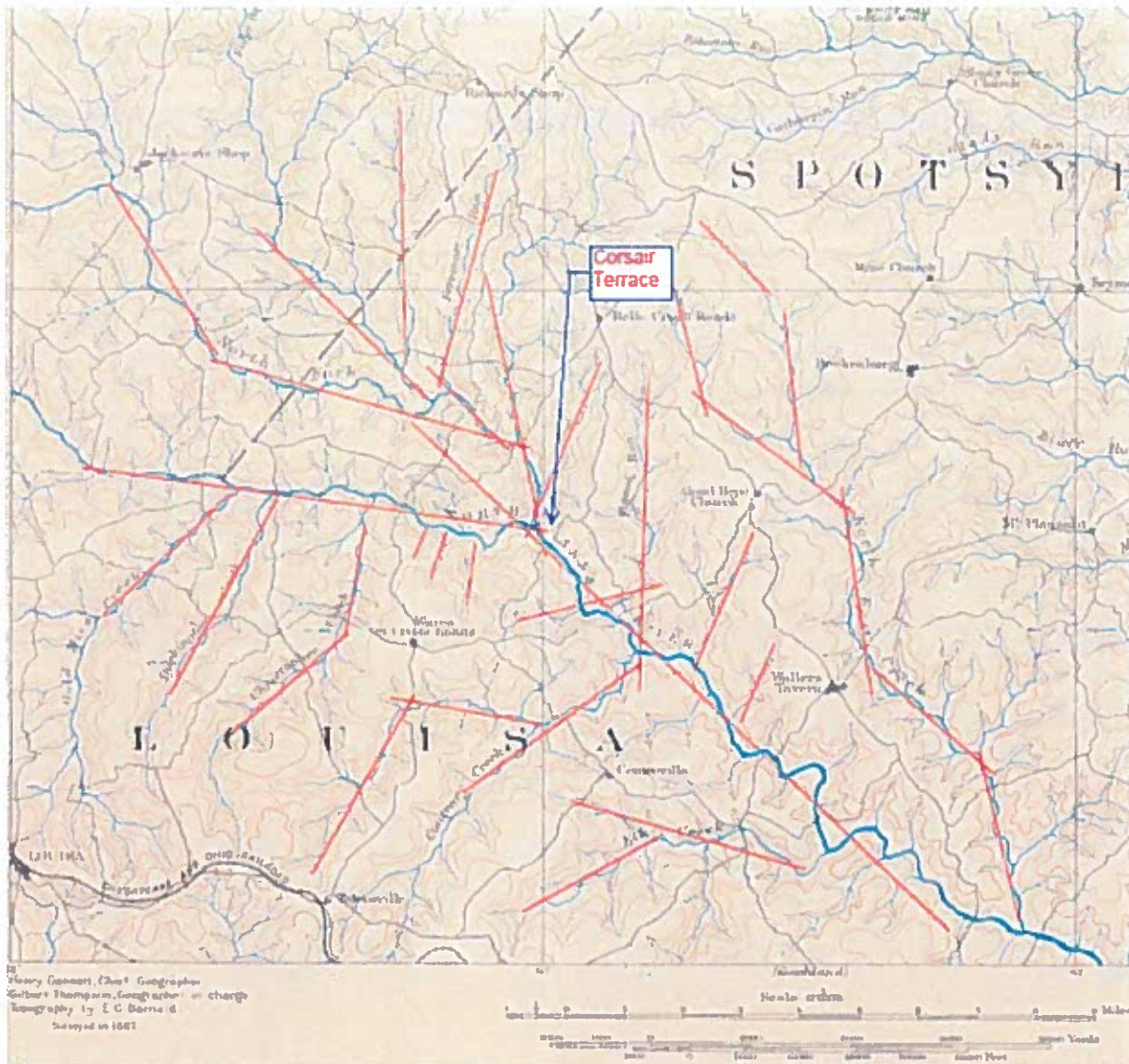


Figure 4 Site Fracture Pattern

Further analysis was conducted on historical USGS Topographic maps. These 1892 maps reveal the natural topography before Lake Anna was created, and before the landscape was modified by modern transportation or buildings. Fracture patterns plotted on this map reveal the intersection of several major fractures in the vicinity of the site, a very favorable finding relative to the prospect of finding water.

Fig 5 Historical Map Fracture Pattern



3. True North Environmental Report

A "Limited Groundwater Assessment Study", August 23, 2012, was prepared regarding the Terry's Run property, located about 5.5 miles upriver along Lake Anna, and situated in almost the same position geologically with respect to the "Lake Anna Lineament" although in a different rock type (granite instead of schist), see Figure 3 above. The report concluded the site is suitable for the development of drinking water supplies to serve a ten lot subdivision without undue adverse impact

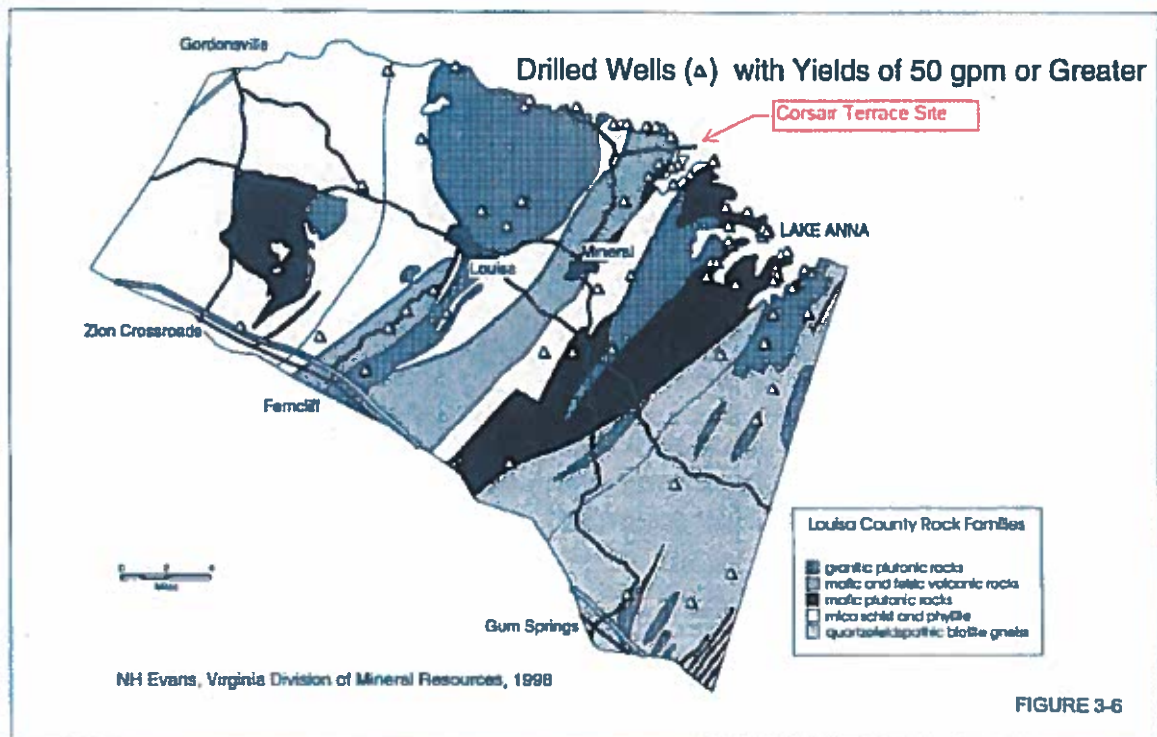
to nearby wells. Private and public well records presented in this report to support this conclusion include several high yielding public wells that are in fact very near our site (High Point Marina, Anna Point Marina) and still other public wells also near our site that have had high yields documented via pumping tests (Lake Anna State Park, Duke's Creek Marina). Some of these wells are very close to, almost abutting our site, indicating that high yields are possible on our site.

4. 1998 Well Study

The County of Louisa Water Quality Management Plan and Groundwater Study (unpublished by Nick Evans) 1998 includes a review of all the wells in Louisa County. There are three significant findings from that report, relevant to our site. First, that report shows a correlation between high yield wells and proximity to Lake Anna, the closer to the lake, the greater likelihood of high yield. That study showed 82 high yield wells (50gpm+) with 50 wells (61%) located in the immediate vicinity of Lake Anna. For this reason alone, the site is in a favorable location. This is likely a result of the major lineament discussed above.

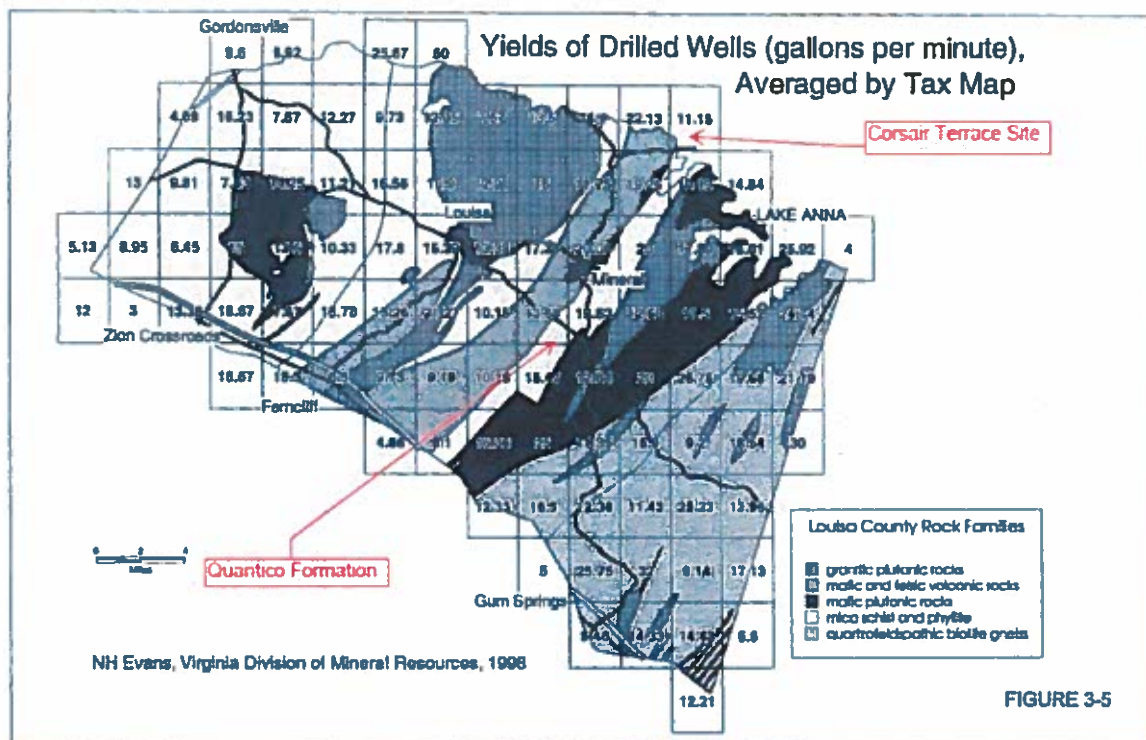
In addition, note in Figure 6 below that a large majority of these high yielding wells seem to cluster in the vicinity of the site, where the Quantico Formation intersects the Lake Anna Lineament.

Fig 6 High Yield Well Pattern



Finally, this 1998 study also shows that wells drilled into the Quantico Formation tend to have high yields, with average yields ranging from around 11gpm to as high as 20 gpm for the quadrangles that show some of this formation. Keep in mind these are randomly drilled wells, nearly all drilled until sufficient yield for a residential supply is found. Scientifically sited wells seeking higher yields, would tend to average higher.

Fig 7 High Average Yields for Quantico Formation



5. Nearby Well Analysis- Federal Databases

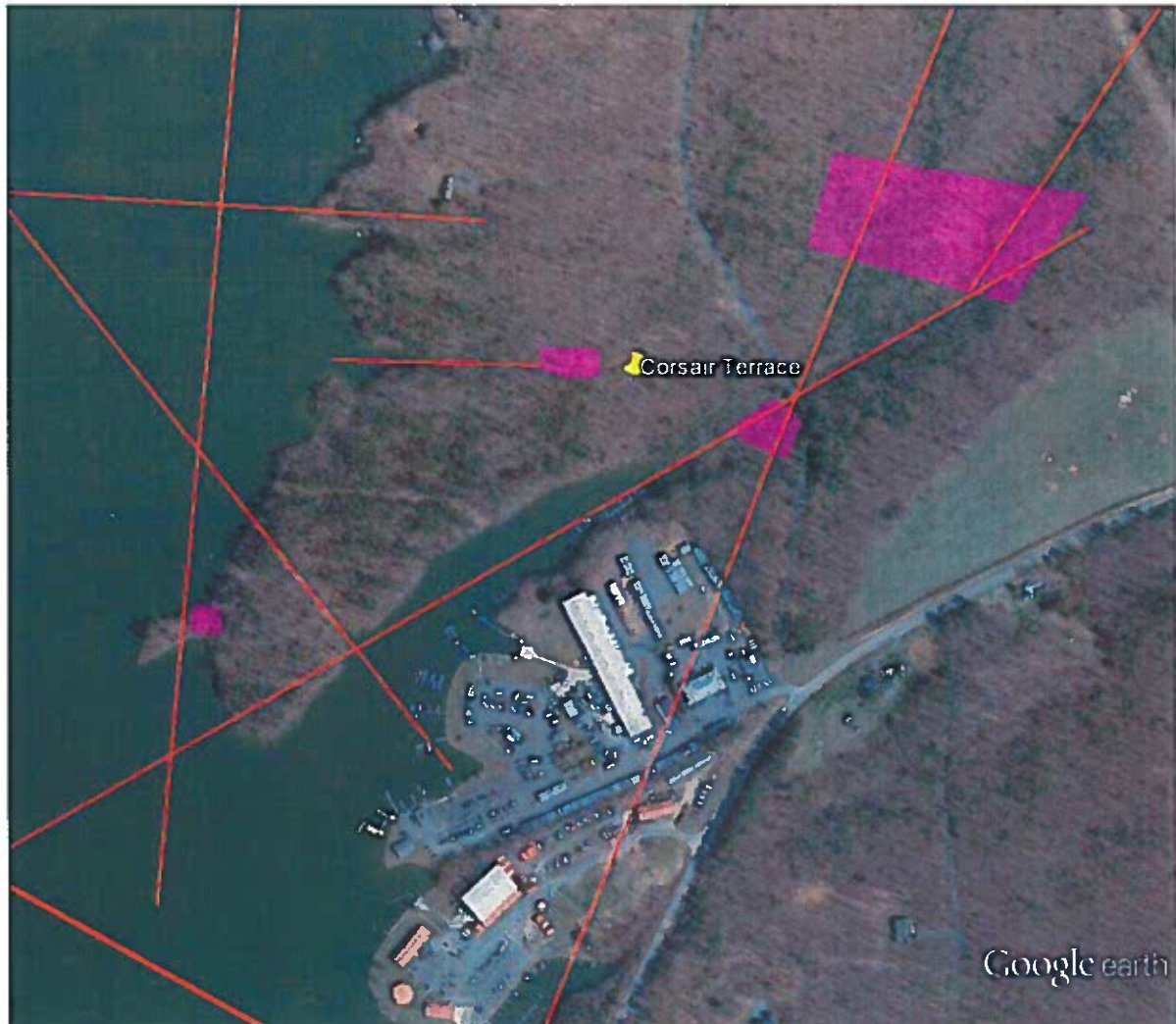
To supplement the previous well studies in the area, well locations from federal databases such as Storet were plotted and analyzed. That analysis supported previous findings of higher yields near Lake Anna. In addition to the previously identified high yielding public wells at the nearby marinas and Lake Anna State Park, this analysis includes details on high yielding wells at the North Anna Nuclear Plant, and the Village of Mineral. The distribution patterns of high yielding wells in conjunction with observed fracture traces and published geological mapping suggest the site has excellent potential for developing high yielding wells.

6. Site Visit- Target Areas

The site was walked on December 3, 2014 to observe site conditions and identify areas with the highest potential for geophysical studies to select sites. As a result of this, four areas have been identified as shown below. These are not precise areas,

but general locations identified for further study. I have marked up one of the site plans and attached it to this document, showing these areas. The prime site would be the one farthest west near the shore of Lake Anna, provided a site can be found in this area that shows a good geophysical signature and is not within the restricted riparian zone. The small site adjacent Corsair Terrace Road may be difficult to access. Geophysical surveying would be relatively easy, especially given the long road access across the site to the westernmost target area. The wooded areas are relatively open and geophysical surveying would be feasible and efficient.

Fig 8 Drilling Target Areas





Please let me know if you have any questions.

Sincerely,

MAEVELLE ENERGY, LLC

A handwritten signature in black ink that reads 'Kenneth E. Bannister'.

Kenneth E. Bannister, CPG



118 Buckingham Circle, Charlottesville, VA 22903

May 30, 2017

Mr. Duncan Daugherty, PE
Virginia Department of Health
Office of Drinking Water
400 South Main Street-2nd Floor
Culpeper, Virginia 22701

Re: PWSID 7600005; Yield & Drawdown Test Results – WELL A

Dear Mr. Daugherty,

Please find the results of the constant rate testing of Well "A" at Townes at Point Seanna located in Spotsylvania County, Virginia (Figure 1).

Executive Summary

The well was pumped for 48 hours at a rate of 100 gpm and approximately 290,682 gallons of water were extracted during the test. A plot of Depth to Water vs Time is found in Attachment I. Data sheets, documenting all field measurements, are included in Attachment II. The specific capacity of 2.12 gal/ft and the rapid recovery (3 hours) indicate that this well is an extraordinary and reliable producer for this portion of the piedmont and is capable of much greater yields.

Finally, water levels in Well B were monitored before, during and after the test. The observed response is estimated to be approximately -0.40 feet or about 5 inches (Attachment III) and therefore considered negligible and highly unlikely to adversely impact the yield of the well (See WELL B REPORT). Therefore, it is our best professional opinion that both WELL A & Well B should be considered separate sources of groundwater.

Testing Methodology

The well was subjected to 48 hour, constant rate test and included a minimum of 24 hours of recovery measurements.

Water-level depths were collected in the well before, during, and after aquifer test. Groundwater levels were recorded using electronic pressure transducers and hand-held electronic water-level meters during the aquifer testing.

Additionally, depth to water measurements were recorded in the non-pumping well during the test in order to observe the degree of interference between pumping and non-pumping wells and to learn about the aquifer characteristics of the site as a whole.

A totalizer flow meter (with sweeps) was implemented to determine rate of flow. In addition, rates were also measured using a 5 gallon bucket and a stop watch. Water withdrawn from the wells was piped at least 150 feet away and downhill from the pumping well during the testing.

Water samples were collected as required by VDH and forwarded to the DCLS Laboratories in Richmond for the analyses of some of the constituents while the Bacteriological Testing was analyzed by Aqua-Air Laboratories in Charlottesville, Virginia.

WELL A SUMMARIZED RESULTS

System Name: Townes at Point Seanna

County: Spotsylvania

Well Number: Well A Class: IIB Size: 6 in

Name & Address of Company Performing Test:

True North Environmental

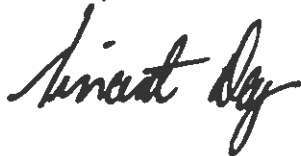
118 Buckingham Circle

Charlottesville, Virginia 22903

- Date & Time Test Started: May 9, 2017: 8:35 AM
- Date & Time Test Terminated: May 11, 2017: 8:47 AM
- Duration of Test: 48 hours + 12 minutes
- Type of Test & Rate: Constant Rate Test- 100 gpm
- Static Water Level: 13.25 feet below top of casing (btoc)
- Average Flow Rate: 101 gpm
- Total Volume of Water Withdrawn During Test: 290,682 gallons
- Pump Depth Setting: ~ 218 feet btoc
- Water Above Pump: 204.75 feet
- Total Drawdown: 47.47 feet
- Specific Capacity: 2.12 gpm/ft
- Drawdown over final 6.75 hours of Test: 0.19 ft
- Amount of Time to Reach 90% Recovery: 3 hours
- Well B Response: -0.40 feet

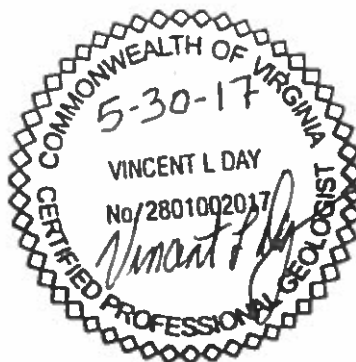
Please let me know if you need any additional information

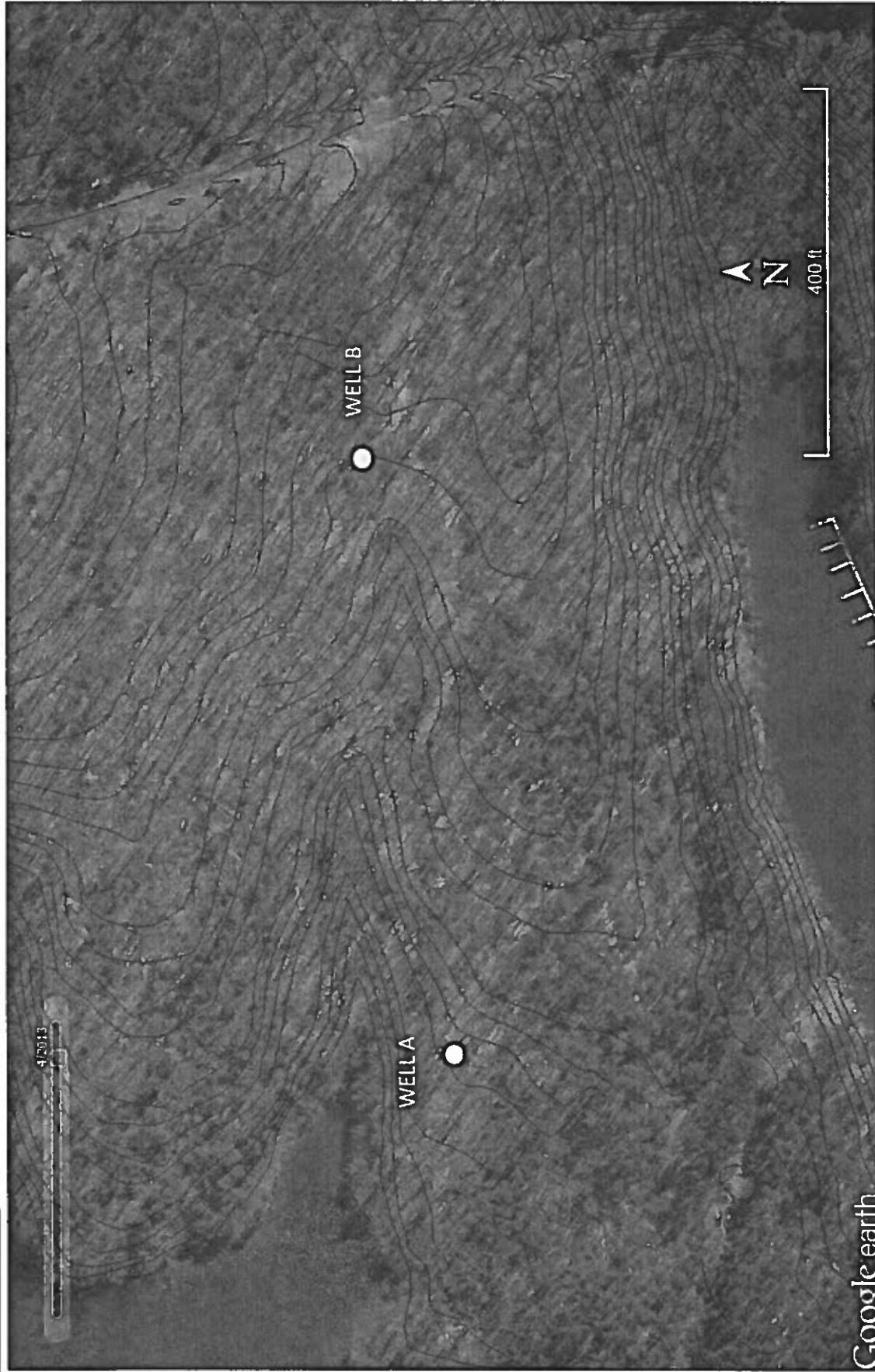
Sincerely,



Vincent Day, PG

Figure
Attachments





TOWNES AT POINT SIENNA
Well Location Map

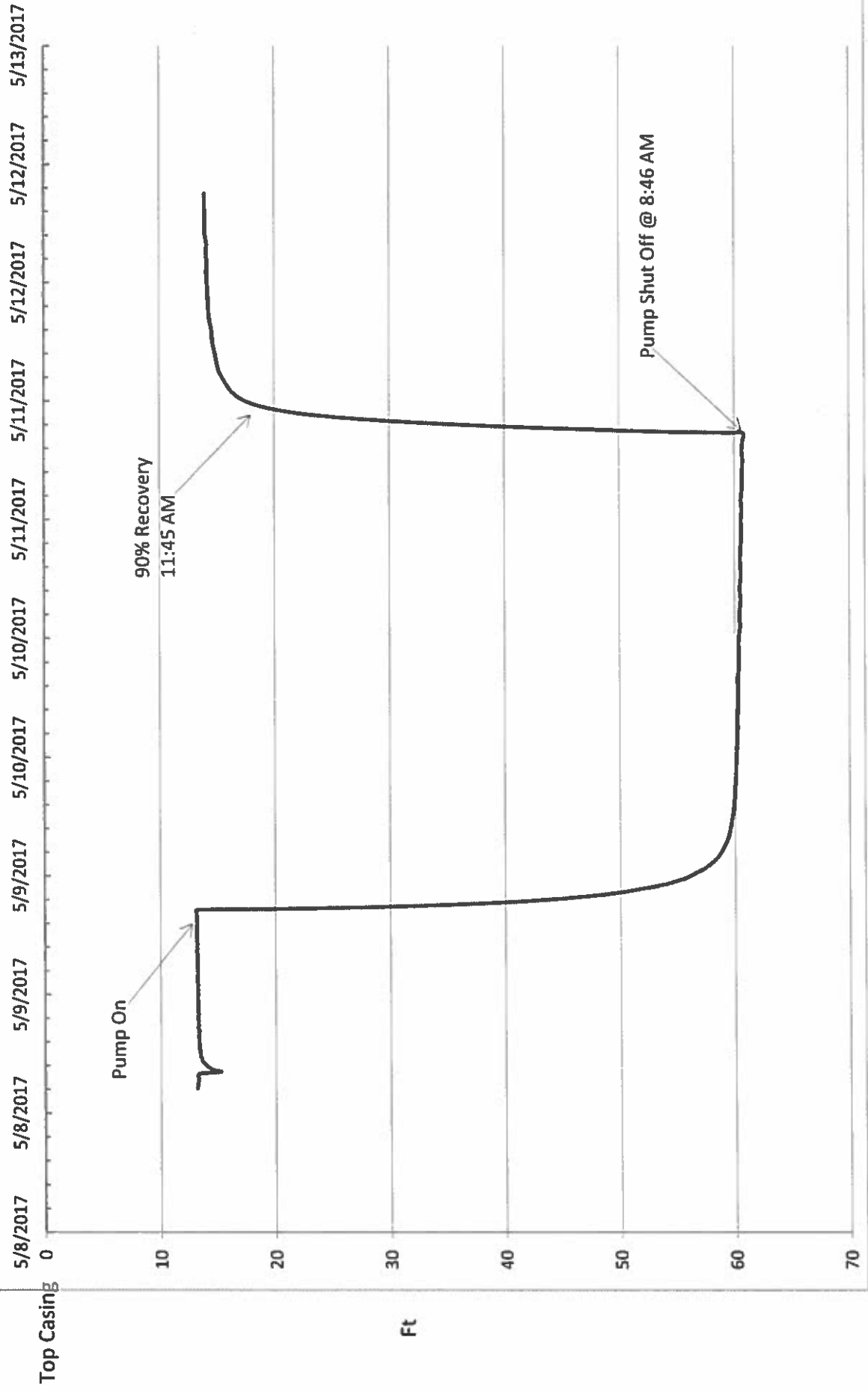
○ APPROXIMATE LOCATION OF WELL

FIGURE
1

ATTACHMENT I
PLOT OF DRAWDOWN & RECOVERY

WELL A

Plot of Time vs Depth to Water



**ATTACHMENT II
DRAWDOWN & RECOVERY
FIELD DATA SHEET**

| TIME | DTW (ft) | | |
|----------------|-----------------|-----------------------------------|--|
| 5/8/2017 14:31 | 13.19 | STATIC (ft) | 13.25 |
| 5/8/2017 14:41 | 13.213 | Pumping Rate (gpm) | 100 |
| 5/8/2017 14:51 | 13.269 | Depth @ 48 hrs | 60.72 |
| 5/8/2017 15:01 | 13.248 | Total Draw Down (ft) | 47.47 |
| 5/8/2017 15:11 | 13.285 | Specific Capacity (gpm/ft) | 2.12 |
| 5/8/2017 15:21 | 13.271 | Gallons Pumped | 290,682 |
| 5/8/2017 15:31 | 13.312 | 90% Recovery Reached | 11:45 AM; 3 hours after shutoff |
| 5/8/2017 15:41 | 13.252 | | |
| 5/8/2017 15:51 | 13.247 | | |
| 5/8/2017 16:01 | 13.381 | | |
| 5/8/2017 16:11 | 15.199 | | |
| 5/8/2017 16:21 | 14.598 | | |
| 5/8/2017 16:31 | 14.324 | | |
| 5/8/2017 16:41 | 14.081 | | |
| 5/8/2017 16:51 | 13.954 | | |
| 5/8/2017 17:01 | 13.812 | | |
| 5/8/2017 17:11 | 13.674 | | |
| 5/8/2017 17:21 | 13.618 | | |
| 5/8/2017 17:31 | 13.598 | | |
| 5/8/2017 17:41 | 13.524 | | |
| 5/8/2017 17:51 | 13.487 | | |
| 5/8/2017 18:01 | 13.464 | | |
| 5/8/2017 18:11 | 13.458 | | |
| 5/8/2017 18:21 | 13.421 | | |
| 5/8/2017 18:31 | 13.407 | | |
| 5/8/2017 18:41 | 13.386 | | |
| 5/8/2017 18:51 | 13.372 | | |
| 5/8/2017 19:01 | 13.377 | | |
| 5/8/2017 19:11 | 13.363 | | |
| 5/8/2017 19:21 | 13.355 | | |
| 5/8/2017 19:31 | 13.355 | | |
| 5/8/2017 19:41 | 13.326 | | |
| 5/8/2017 19:51 | 13.323 | | |
| 5/8/2017 20:01 | 13.363 | | |
| 5/8/2017 20:11 | 13.342 | | |
| 5/8/2017 20:21 | 13.392 | | |
| 5/8/2017 20:31 | 13.321 | | |
| 5/8/2017 20:41 | 13.29 | | |
| 5/8/2017 20:51 | 13.326 | | |
| 5/8/2017 21:01 | 13.313 | | |
| 5/8/2017 21:11 | 13.292 | | |
| 5/8/2017 21:21 | 13.323 | | |
| 5/8/2017 21:31 | 13.264 | | |
| 5/8/2017 21:41 | 13.295 | | |
| 5/8/2017 21:51 | 13.261 | | |
| 5/8/2017 22:01 | 13.336 | | |

| TIME | DTW |
|----------------|--------|
| 5/8/2017 22:11 | 13.283 |
| 5/8/2017 22:21 | 13.269 |
| 5/8/2017 22:31 | 13.278 |
| 5/8/2017 22:41 | 13.249 |
| 5/8/2017 22:51 | 13.276 |
| 5/8/2017 23:01 | 13.259 |
| 5/8/2017 23:11 | 13.282 |
| 5/8/2017 23:21 | 13.271 |
| 5/8/2017 23:31 | 13.242 |
| 5/8/2017 23:41 | 13.258 |
| 5/8/2017 23:51 | 13.261 |
| 5/9/2017 0:01 | 13.296 |
| 5/9/2017 0:11 | 13.258 |
| 5/9/2017 0:21 | 13.272 |
| 5/9/2017 0:31 | 13.269 |
| 5/9/2017 0:41 | 13.239 |
| 5/9/2017 0:51 | 13.268 |
| 5/9/2017 1:01 | 13.274 |
| 5/9/2017 1:11 | 13.244 |
| 5/9/2017 1:21 | 13.229 |
| 5/9/2017 1:31 | 13.239 |
| 5/9/2017 1:41 | 13.224 |
| 5/9/2017 1:51 | 13.232 |
| 5/9/2017 2:01 | 13.244 |
| 5/9/2017 2:11 | 13.279 |
| 5/9/2017 2:21 | 13.245 |
| 5/9/2017 2:31 | 13.257 |
| 5/9/2017 2:41 | 13.222 |
| 5/9/2017 2:51 | 13.239 |
| 5/9/2017 3:01 | 13.229 |
| 5/9/2017 3:11 | 13.227 |
| 5/9/2017 3:21 | 13.262 |
| 5/9/2017 3:31 | 13.231 |
| 5/9/2017 3:41 | 13.203 |
| 5/9/2017 3:51 | 13.22 |
| 5/9/2017 4:01 | 13.239 |
| 5/9/2017 4:11 | 13.208 |
| 5/9/2017 4:21 | 13.206 |
| 5/9/2017 4:31 | 13.206 |
| 5/9/2017 4:41 | 13.207 |
| 5/9/2017 4:51 | 13.19 |
| 5/9/2017 5:01 | 13.222 |
| 5/9/2017 5:11 | 13.21 |
| 5/9/2017 5:21 | 13.197 |
| 5/9/2017 5:31 | 13.207 |
| 5/9/2017 5:41 | 13.194 |
| 5/9/2017 5:51 | 13.198 |

| TIME | DTW |
|---------------|----------------|
| 5/9/2017 6:01 | 13.191 |
| 5/9/2017 6:11 | 13.204 |
| 5/9/2017 6:21 | 13.206 |
| 5/9/2017 6:31 | 13.208 |
| 5/9/2017 6:41 | 13.204 |
| 5/9/2017 6:51 | 13.208 |
| 5/9/2017 7:01 | 13.204 |
| 5/9/2017 7:11 | 13.207 |
| 5/9/2017 7:21 | 13.178 |
| 5/9/2017 7:31 | 13.211 |
| 5/9/2017 7:41 | 13.174 |
| 5/9/2017 7:51 | 13.224 |
| 5/9/2017 8:01 | 13.18 |
| 5/9/2017 8:11 | 13.165 |
| 5/9/2017 8:21 | 13.157 |
| 5/9/2017 8:30 | 13.09 |
| 5/9/2017 8:31 | 13.158 |
| 5/9/2017 8:32 | 13.222 |
| 5/9/2017 8:33 | 13.148 |
| 5/9/2017 8:34 | 13.207 |
| 5/9/2017 8:35 | 13.262 |
| 5/9/2017 8:36 | 13.246 ON |
| 5/9/2017 8:37 | 15.572 |
| 5/9/2017 8:38 | 17.185 109 gpm |
| 5/9/2017 8:39 | 18.494 |
| 5/9/2017 8:40 | 19.611 |
| 5/9/2017 8:41 | 20.613 |
| 5/9/2017 8:42 | 21.57 |
| 5/9/2017 8:43 | 22.425 |
| 5/9/2017 8:44 | 23.266 |
| 5/9/2017 8:45 | 23.97 |
| 5/9/2017 8:46 | 24.762 |
| 5/9/2017 8:47 | 25.469 |
| 5/9/2017 8:48 | 26.161 |
| 5/9/2017 8:49 | 26.807 |
| 5/9/2017 8:50 | 27.474 |
| 5/9/2017 8:51 | 28.053 |
| 5/9/2017 8:52 | 28.668 |
| 5/9/2017 8:53 | 29.274 |
| 5/9/2017 8:54 | 29.635 |
| 5/9/2017 8:55 | 30.222 |
| 5/9/2017 8:56 | 30.812 |
| 5/9/2017 8:57 | 31.203 |
| 5/9/2017 8:58 | 31.681 |
| 5/9/2017 8:59 | 32.155 |
| 5/9/2017 9:00 | 32.624 |
| 5/9/2017 9:01 | 33.035 |

| TIME | DTW |
|----------------|----------------|
| 5/9/2017 9:02 | 33.412 |
| 5/9/2017 9:03 | 33.84 |
| 5/9/2017 9:04 | 34.193 |
| 5/9/2017 9:05 | 34.675 |
| 5/9/2017 9:06 | 35.099 |
| 5/9/2017 9:07 | 35.435 |
| 5/9/2017 9:08 | 35.749 |
| 5/9/2017 9:09 | 36.17 |
| 5/9/2017 9:10 | 36.393 |
| 5/9/2017 9:11 | 36.872 |
| 5/9/2017 9:12 | 37.104 |
| 5/9/2017 9:13 | 37.478 |
| 5/9/2017 9:14 | 37.799 |
| 5/9/2017 9:15 | 38.048 |
| 5/9/2017 9:16 | 38.351 |
| 5/9/2017 9:17 | 38.715 |
| 5/9/2017 9:18 | 38.903 |
| 5/9/2017 9:19 | 39.299 |
| 5/9/2017 9:20 | 39.506 |
| 5/9/2017 9:21 | 39.812 |
| 5/9/2017 9:22 | 40.099 |
| 5/9/2017 9:23 | 40.33 |
| 5/9/2017 9:24 | 40.541 |
| 5/9/2017 9:25 | 40.86 |
| 5/9/2017 9:26 | 41.086 |
| 5/9/2017 9:27 | 41.373 |
| 5/9/2017 9:28 | 41.61 |
| 5/9/2017 9:29 | 41.862 |
| 5/9/2017 9:30 | 42.091 |
| 5/9/2017 9:31 | 42.321 |
| 5/9/2017 9:32 | 42.48 |
| 5/9/2017 9:33 | 42.748 |
| 5/9/2017 9:34 | 42.913 |
| 5/9/2017 9:35 | 43.106 |
| 5/9/2017 9:36 | 43.383 106 gpm |
| 5/9/2017 9:37 | 43.518 |
| 5/9/2017 9:38 | 43.76 |
| 5/9/2017 9:39 | 43.938 |
| 5/9/2017 9:40 | 44.116 |
| 5/9/2017 9:45 | 45.07 |
| 5/9/2017 9:50 | 45.857 |
| 5/9/2017 9:55 | 46.653 |
| 5/9/2017 10:00 | 47.404 |
| 5/9/2017 10:05 | 48.07 |
| 5/9/2017 10:10 | 48.705 |
| 5/9/2017 10:15 | 49.319 |
| 5/9/2017 10:20 | 49.801 |

| TIME | DTW | | |
|-----------------|----------------|-------------------|-----------------------------|
| 5/9/2017 10:25 | 50.404 | | |
| 5/9/2017 10:30 | 50.829 102 gpm | | |
| 5/9/2017 10:45 | 52.014 | | |
| 5/9/2017 11:00 | 53.137 | | |
| 5/9/2017 11:15 | 54.092 | | |
| 5/9/2017 11:30 | 54.824 | | |
| 5/9/2017 11:45 | 55.547 | | |
| 5/9/2017 12:00 | 56.039 100 gpm | Draw Down (ft/hr) | |
| 5/9/2017 13:00 | 57.556 | 1.517 | |
| 5/9/2017 14:00 | 58.49 | 0.934 | |
| 5/9/2017 15:00 | 59.008 | 0.518 | |
| 5/9/2017 16:00 | 59.389 100 gpm | 0.381 | |
| 5/9/2017 17:00 | 59.575 | 0.186 | STABILIZATION (<0.20 ft/hr) |
| 5/9/2017 18:00 | 59.725 | 0.15 | |
| 5/9/2017 19:00 | 59.853 | 0.128 | |
| 5/9/2017 20:00 | 59.945 | 0.092 | |
| 5/9/2017 21:00 | 59.981 | 0.036 | |
| 5/9/2017 22:00 | 60.032 | 0.051 | |
| 5/9/2017 23:00 | 60.053 | 0.021 | |
| 5/10/2017 0:00 | 60.099 100 gpm | 0.046 | |
| 5/10/2017 1:00 | 60.128 | 0.029 | |
| 5/10/2017 2:00 | 60.177 | 0.049 | |
| 5/10/2017 3:00 | 60.22 | 0.043 | |
| 5/10/2017 4:00 | 60.189 100 gpm | -0.031 | |
| 5/10/2017 5:00 | 60.262 | 0.073 | |
| 5/10/2017 6:00 | 60.258 | -0.004 | |
| 5/10/2017 7:00 | 60.262 | 0.004 | |
| 5/10/2017 8:00 | 60.247 | -0.015 | |
| 5/10/2017 9:00 | 60.311 | 0.064 | |
| 5/10/2017 10:00 | 60.32 | 0.009 | |
| 5/10/2017 11:00 | 60.313 100 gpm | -0.007 | |
| 5/10/2017 12:00 | 60.319 | 0.006 | |
| 5/10/2017 13:00 | 60.434 | 0.115 | |
| 5/10/2017 14:00 | 60.42 | -0.014 | |
| 5/10/2017 15:00 | 60.428 | 0.008 | |
| 5/10/2017 16:00 | 60.498 | 0.07 | |
| 5/10/2017 17:00 | 60.411 | -0.087 | |
| 5/10/2017 18:00 | 60.5 | 0.089 | |
| 5/10/2017 19:00 | 60.498 | -0.002 | |
| 5/10/2017 20:00 | 60.456 | -0.042 | |
| 5/10/2017 21:00 | 60.481 | 0.025 | |
| 5/10/2017 22:00 | 60.552 100 gpm | 0.071 | |
| 5/10/2017 23:00 | 60.566 | 0.014 | |
| 5/11/2017 0:00 | 60.535 | -0.031 | |
| 5/11/2017 1:00 | 60.595 | 0.06 | |
| 5/11/2017 2:00 | 60.525 | -0.07 | |
| 5/11/2017 3:00 | 60.616 | 0.091 | |

| TIME | DTW | Drawdown (ft/hr) |
|----------------|----------------|------------------|
| 5/11/2017 4:00 | 60.623 | 0.007 |
| 5/11/2017 5:00 | 60.636 | 0.013 |
| 5/11/2017 6:00 | 60.692 | 0.056 |
| 5/11/2017 7:00 | 60.616 100 gpm | -0.076 |
| 5/11/2017 8:00 | 60.707 | 0.091 |
| 5/11/2017 8:46 | 60.724 | RECOVERY BEGINS |
| 5/11/2017 8:47 | 59.543 | |
| 5/11/2017 8:48 | 58.139 | |
| 5/11/2017 8:49 | 57.128 | |
| 5/11/2017 8:50 | 56.229 | |
| 5/11/2017 8:51 | 55.367 | |
| 5/11/2017 8:52 | 54.731 | |
| 5/11/2017 8:53 | 54.081 | |
| 5/11/2017 8:54 | 53.421 | |
| 5/11/2017 8:55 | 52.833 | |
| 5/11/2017 8:56 | 52.261 | |
| 5/11/2017 8:57 | 51.647 | |
| 5/11/2017 8:58 | 51.111 | |
| 5/11/2017 8:59 | 50.569 | |
| 5/11/2017 9:00 | 50.025 | |
| 5/11/2017 9:01 | 49.537 | |
| 5/11/2017 9:02 | 48.996 | |
| 5/11/2017 9:03 | 48.519 | |
| 5/11/2017 9:04 | 48.013 | |
| 5/11/2017 9:05 | 49.403 | |
| 5/11/2017 9:06 | 48.176 | |
| 5/11/2017 9:07 | 47.478 | |
| 5/11/2017 9:08 | 46.874 | |
| 5/11/2017 9:09 | 46.418 | |
| 5/11/2017 9:10 | 45.912 | |
| 5/11/2017 9:11 | 45.423 | |
| 5/11/2017 9:12 | 44.948 | |
| 5/11/2017 9:13 | 44.509 | |
| 5/11/2017 9:14 | 44.042 | |
| 5/11/2017 9:15 | 43.641 | |
| 5/11/2017 9:16 | 43.222 | |
| 5/11/2017 9:17 | 42.789 | |
| 5/11/2017 9:18 | 42.375 | |
| 5/11/2017 9:19 | 42.018 | |
| 5/11/2017 9:20 | 41.57 | |
| 5/11/2017 9:21 | 41.182 | |
| 5/11/2017 9:22 | 40.846 | |
| 5/11/2017 9:23 | 40.419 | |
| 5/11/2017 9:24 | 40.005 | |
| 5/11/2017 9:25 | 39.679 | |
| 5/11/2017 9:26 | 39.295 | |
| 5/11/2017 9:27 | 38.94 | |

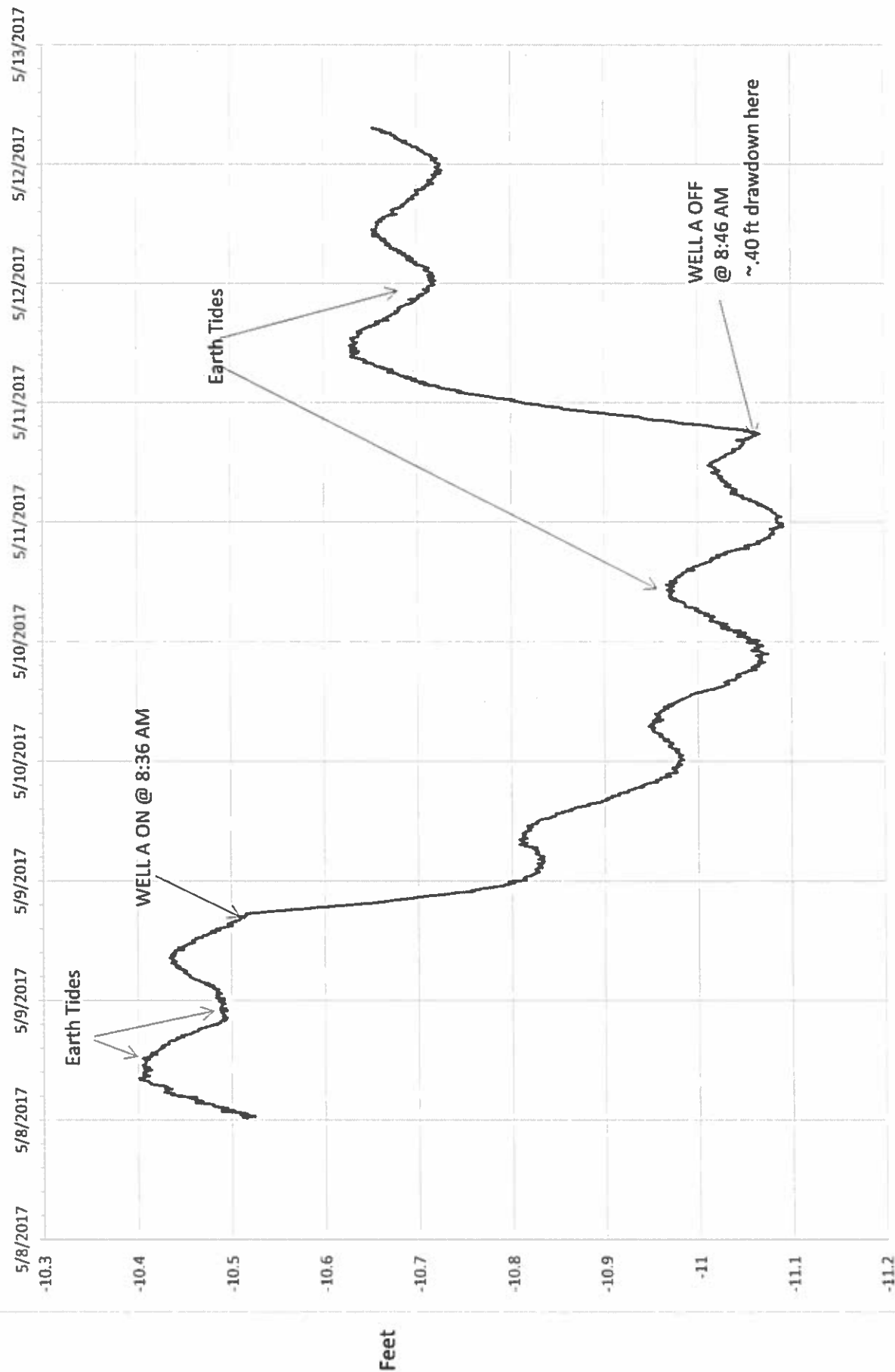
0

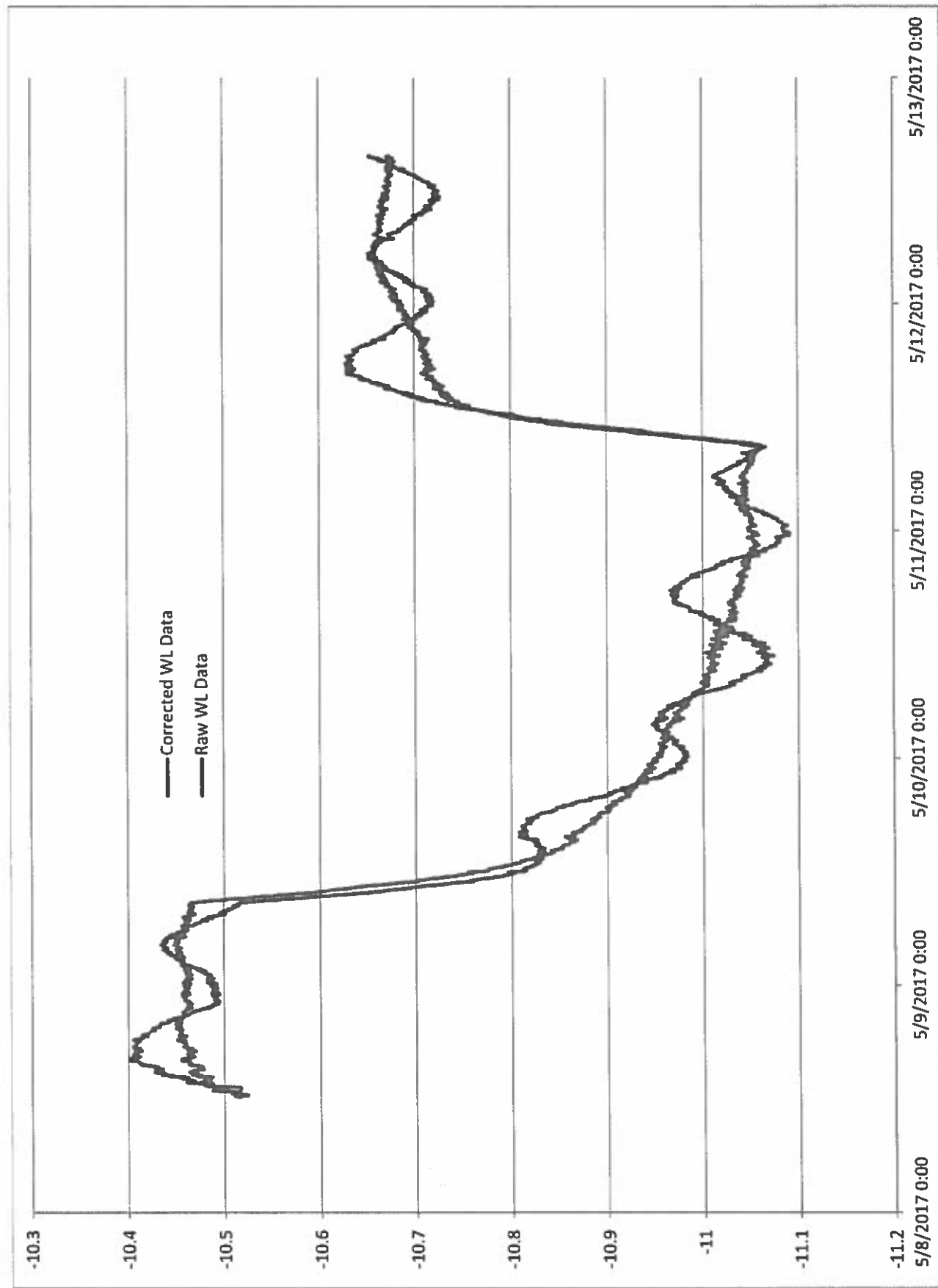
| TIME | DTW |
|-----------------|----------------------|
| 5/11/2017 9:28 | 38.597 |
| 5/11/2017 9:29 | 38.218 |
| 5/11/2017 9:30 | 37.845 |
| 5/11/2017 9:31 | 37.552 |
| 5/11/2017 9:32 | 37.184 |
| 5/11/2017 9:33 | 36.836 |
| 5/11/2017 9:34 | 36.527 |
| 5/11/2017 9:35 | 36.184 |
| 5/11/2017 9:36 | 35.851 |
| 5/11/2017 9:37 | 35.564 |
| 5/11/2017 9:38 | 35.277 |
| 5/11/2017 9:39 | 34.928 |
| 5/11/2017 9:40 | 34.685 |
| 5/11/2017 9:41 | 34.291 |
| 5/11/2017 9:42 | 34.034 |
| 5/11/2017 9:43 | 33.751 |
| 5/11/2017 9:44 | 33.398 |
| 5/11/2017 9:45 | 33.196 |
| 5/11/2017 9:46 | 32.823 |
| 5/11/2017 9:47 | 32.565 |
| 5/11/2017 9:48 | 32.372 |
| 5/11/2017 9:49 | 32.074 |
| 5/11/2017 9:50 | 31.735 |
| 5/11/2017 9:51 | 31.541 |
| 5/11/2017 9:52 | 31.325 |
| 5/11/2017 9:53 | 31.006 |
| 5/11/2017 9:54 | 30.776 |
| 5/11/2017 9:55 | 30.541 |
| 5/11/2017 9:56 | 30.302 |
| 5/11/2017 9:57 | 30.081 |
| 5/11/2017 9:58 | 29.782 |
| 5/11/2017 9:59 | 29.546 |
| 5/11/2017 10:00 | 29.317 |
| 5/11/2017 10:05 | 28.212 |
| 5/11/2017 10:10 | 27.202 |
| 5/11/2017 10:15 | 26.273 |
| 5/11/2017 10:20 | 25.379 |
| 5/11/2017 10:25 | 24.587 |
| 5/11/2017 10:30 | 23.859 |
| 5/11/2017 10:35 | 23.091 |
| 5/11/2017 10:40 | 22.526 |
| 5/11/2017 10:45 | 21.992 |
| 5/11/2017 11:00 | 20.561 |
| 5/11/2017 11:15 | 19.473 |
| 5/11/2017 11:30 | 18.593 |
| 5/11/2017 11:45 | 17.982 90% Recovered |
| 5/11/2017 12:00 | 17.43 |

| TIME | DTW |
|-----------------|--------|
| 5/11/2017 12:15 | 17.063 |
| 5/11/2017 12:30 | 16.702 |
| 5/11/2017 12:45 | 16.526 |
| 5/11/2017 13:00 | 16.256 |
| 5/11/2017 14:00 | 15.678 |
| 5/11/2017 15:00 | 15.206 |
| 5/11/2017 16:00 | 14.994 |
| 5/11/2017 17:00 | 14.844 |
| 5/11/2017 18:00 | 14.653 |
| 5/11/2017 19:00 | 14.616 |
| 5/11/2017 20:00 | 14.433 |
| 5/11/2017 21:00 | 14.337 |
| 5/11/2017 22:00 | 14.289 |
| 5/11/2017 23:00 | 14.262 |
| 5/12/2017 0:00 | 14.214 |
| 5/12/2017 1:00 | 14.16 |
| 5/12/2017 2:00 | 14.194 |
| 5/12/2017 3:00 | 14.127 |
| 5/12/2017 4:00 | 14.163 |
| 5/12/2017 5:00 | 14.013 |
| 5/12/2017 6:00 | 14.036 |
| 5/12/2017 7:00 | 14.009 |
| 5/12/2017 8:00 | 13.984 |
| 5/12/2017 9:00 | 13.987 |

**ATTACHMENT III
RESPONSE PLOT
WELL B**

WELL B- Response to WELL A Pumping





TOWNS AT POINT SEANNA
Spotsylvania County, Virginia

Water System Preliminary Engineering Report

January 16, 2015



Project No. 6996-01-001

Bowman Consulting Group, Ltd.

**460 McLaws Circle
Suite 120
Williamsburg, Virginia 23185
Phone: 757-229-1776
Fax: 757-229-4683**

bowmanconsulting.com

TABLE OF CONTENTS

| | | |
|-------------|---|-----------|
| I. | INTRODUCTION | 1 |
| II. | PRELIMINARY HYDROGEOLOGIC REPORT | 3 |
| III. | DESIGN CRITERIA | 4 |
| | A. AVERAGE FLOW RATES AND WELL PUMP CAPACITY..... | 4 |
| | B. IRON AND MANGANESE REMOVAL | 4 |
| | C. ATMOSPHERIC STORAGE TANK..... | 5 |
| | D. BOOSTER PUMPS | 5 |
| | E. HYDROPNEUMATIC TANK..... | 6 |
| | F. SODIUM HYPOCHLORITE | 6 |
| | G. POTASSIUM PERMANGANATE SOLUTION | 7 |
| | H. SODIUM CARBONATE (SODA ASH) SOLUTION | 7 |
| | I. BUILDING AND SITE | 7 |
| IV. | SYSTEM OPERATION | 9 |
| V. | PRELIMINARY COST ESTIMATE..... | 10 |
| VI. | CONCLUSION AND RECOMMENDATIONS | 11 |

APPENDICIES

APPENDIX A – Preliminary Hydrogeologic Report
APPENDIX B – Hydraulic Process Schematic
APPENDIX C – Preliminary Layouts
APPENDIX D – Cost Estimate

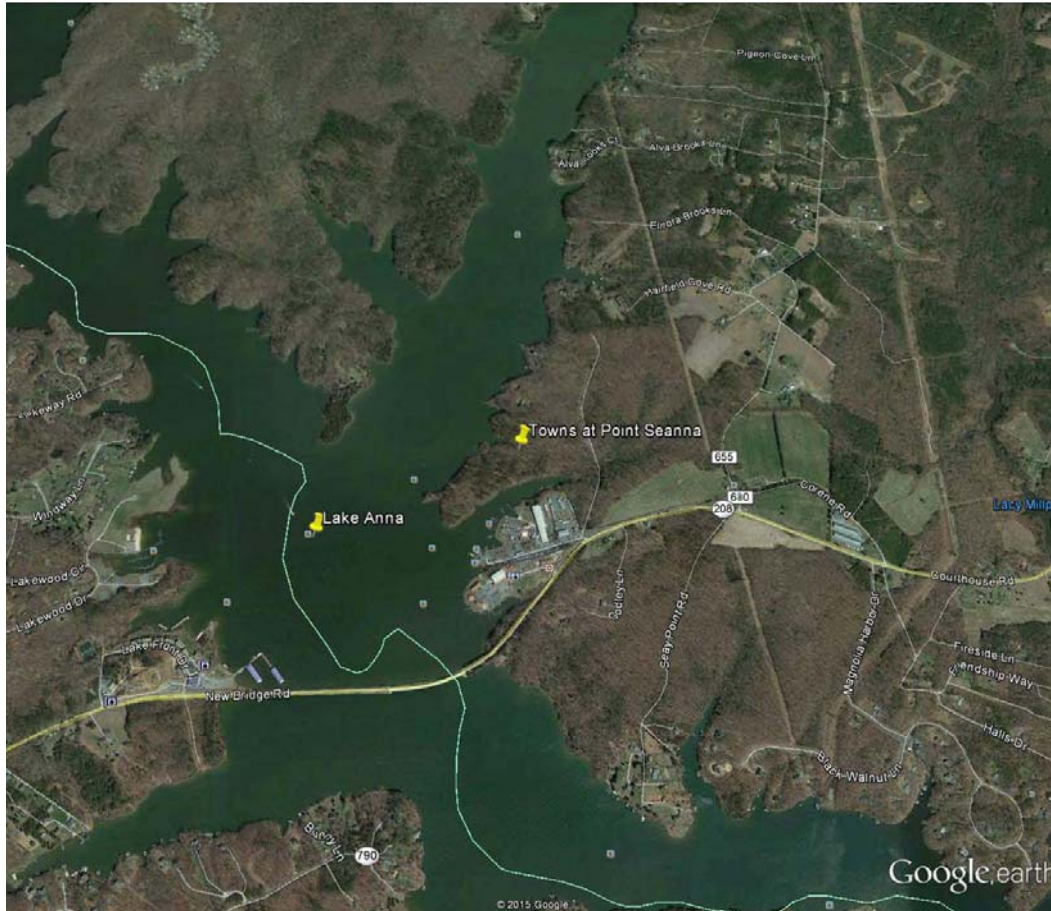
I. INTRODUCTION

The purpose of this preliminary engineering report is to support the design of a water system to serve the proposed Towns at Point Seanna subdivision in Spotsylvania County, Virginia. The system will serve approximately 81 residential townhomes. The development is located off of Courthouse Road (Route 208) in Spotsylvania County. The property is bordered by Lake Anna (Pigeon Run) on the western side and Shaffers Cove on the southern side (see **Figure I-1: Project Vicinity Map**). Since public water is not available, a new water supply, treatment, and pumping system is required to serve the development.

A preliminary hydrogeologic report conducted for this project indicated that it is highly likely that there is sufficient groundwater available to serve the proposed development. Design of any treatment for the water system will be contingent upon water quality data, however, based on information related to other wells in the area, we have assumed that the wells will require disinfection as well as iron and manganese removal.

The proposed water system will consist of two drilled groundwater wells, an atmospheric storage tank, booster pumps, hydropneumatic tank, a chlorine disinfection system and an iron and manganese filter.

The system will be privately owned and operated. The design for the water system is based on the Virginia Department of Health (VDH) standards for public water systems.



TOWNS AT POINT SEANNA WATER SYSTEM
SPOTSYLVANIA COUNTY, VIRGINIA

FIGURE I-1: PROJECT VICINITY MAP

BOWMAN CONSULTING GROUP, LTD.
460 McLAWS CIRCLE, SUITE 120
WILLIAMSBURG, VIRGINIA 23185
(757) 229-1776
FAX: (757) 229-4683

II. PRELIMINARY HYDROGEOLOGIC REPORT

A preliminary hydrogeologic report, included as Appendix A, was prepared by Maeville Energy, dated December 8, 2014. The report evaluated the site for water supply potential based on existing information and a brief site visit. The results of the evaluation indicated that the site is considered favorable for producing the required volumes of water to meet the demands.

A more detailed study, including remote sensing and a fracture trace analysis, as well as on site geographical surveying, will need to be prepared to identify the exact drilling sites. Once the well sites have been selected, test wells will need to be installed in order to determine well yields and water quality.

Based on similar water quality data in the region, it is assumed that water treatment for the system will include iron and manganese removal as well as disinfection.

III. DESIGN CRITERIA

A. AVERAGE FLOW RATES AND WELL PUMP CAPACITY

The water system will serve 81 units, each with 4 bedrooms. Based on a water demand of 90 gpd/bedroom, the water system will be designed based on the following average flow rate:

$$81 \text{ units} \times 4 \text{ bedroom/unit} \times 90 \text{ gpd/bedroom} = 29,160 \text{ gpd} = 20.3 \text{ gpm}$$

VDH regulations require that wells produce a minimum of 0.5 gpm per unit. Therefore, the minimum well flow rate is:

$$81 \text{ units} \times 0.5 \text{ gpm/unit} = 40.5 \text{ gpm}$$

The proposed system will provide domestic water service only. Fire flows will be provided for the development by dry hydrants that draw non-potable water from Lake Anna.

B. IRON AND MANGANESE REMOVAL

The proposed iron and manganese removal system will include two Greensand Filters. The filter controls will be automated, and backwashing will occur automatically based on either time controls or differential pressure. Backwashing can also be manually initiated. Potassium permanganate and sodium hypochlorite will be fed continuously to the raw water prior to the filter. Each greensand filter will be sized for the minimum well flow rate of 40.5 gpm.

The greensand filters are sized based on a loading rate of 3 gpm/sf. Therefore, the

minimum required greensand filter surface area is 13.4 square feet (40.5 gpm / 3 gpm/sf = 13.4 sf), resulting in the need for two 48" diameter filter units.

The filters will be backwashed at a rate of approximately 15 gpm/sf for approximately 15 minutes. A backwash holding tank will be provided to store the backwash water before disposal. The tank will be sized for one backwash event, which is approximately 3,015 gallons. A 5,000 gallon storage tank is proposed. There are two alternatives for disposal of the backwash water. Backwash can either be pumped back into the lake, which would require a Virginia Pollutant Discharge Elimination System (VPDES) permit from Virginia Department of Environmental Quality (DEQ), or it can be disposed of through underground injection, which requires an Underground Injection Control (UIC) permit from the EPA.

C. ATMOSPHERIC STORAGE TANK

VDH requires a storage volume of 200 gallons per housing unit. Therefore, total storage required for the system is:

$$81 \text{ units} \times 200 \text{ gallon/unit} = 16,200 \text{ gallons}$$

The proposed atmospheric storage tank has a capacity of 20,000 gallons.

D. BOOSTER PUMPS

VDH requires a minimum pump capacity of $Q = 11.4 n^{.544}$, where n equals the number of equivalent residential connections. This equates to a minimum pumping capacity of approximately 124 GPM based on 81 ERC's.

Two (2) pumps are provided in primary/backup configuration with each pump

capable of providing 124 GPM at a sufficient pressure to maintain the minimum distribution system pressure. The booster pumps will also be used to backwash the iron and manganese filters.

E. HYDROPNEUMATIC TANK

A 5,000 gallon hydropneumatic tank will be provided. An air compressor and the booster pumps will maintain pressure in the tank between approximately 50 and 60 psi.

F. SODIUM HYPOCHLORITE

Sodium hypochlorite will be fed to the raw water to maintain minimum chlorine residual in the atmospheric storage tank and distribution system. The assumed design feed concentration is 2 ppm. The following calculations are based on the well design flow rate of 40.5 gpm:

$$\text{Flow: } 40.5 \text{ gpm} = 58,320 \text{ gpd} \times 8.34 \text{ lbs/gal} = 486,389 \text{ lbs/day}$$

$$\frac{X \text{ lb/day CL}_2}{486,389 \text{ lb/day H}_2\text{O}} = \frac{2 \text{ lb/day CL}_2}{1,000,000 \text{ lb/day H}_2\text{O}}$$

$$X = 1.0 \text{ lb/day CL}_2$$

Using a 12.5% solution (Standard Sodium Hypochlorite Solution)

$$\frac{1.0 \text{ lb/day CL}_2}{0.125 \text{ lb/day CL}_2 \text{ solution}}$$

= 7.8 lb/day solution

= **0.9 gal/day = 0.04 gph**

Two chemical feed pumps (one wall mounted, one spare) will be provided to pump the chemical into the well piping. The pumps will be capable of pumping 0.2 GPD @ 100 PSI with maximum pumping capacity of 3 GPD.

G. POTASSIUM PERMANGANATE SOLUTION

Potassium permanganate solution will be fed to the raw water prior to entering the filter in order to remove iron and manganese. The amount of potassium permanganate required will depend on the results of the water quality analysis.

H. SODIUM CARBONATE (SODA ASH) SOLUTION

If it is determined that pH adjustment is required, soda ash will be fed prior to the raw water entering the filter. Jar testing will be performed to determine the exact soda ash feed rate.

I. BUILDING AND SITE

The water system will be located within a pre-cast concrete building with approximate dimensions of 20' by 24'. The wells will be remotely located from the building and will supply groundwater through 3" transmission mains from the wells to the treatment facility. We have assumed that the system will be equipped with an emergency generator to allow the system to continue to operate in the event of a power outage. However, as an alternative, it could be configured to allow the connection of a portable generator, if the Owner so

chooses.

The total water treatment plant site is estimated to be approximately 60' by 100', or 0.14 acres. The site requires an access drive with a turn around and a chain link fence.

An overall site plan showing potential sites for the wells and treatment facility, as well as an overall site plan for the treatment plant, are provided in Appendix C.

IV. SYSTEM OPERATION

The starting and stopping of the well pumps will be based on the water level in the atmospheric storage tank. When the water level drops to the “Well Pump On” elevation, the well pump will energize. When the water level reaches the “Well Pump Off” elevation, the well pump will be stopped. The two well pumps will automatically alternate operation. There will also be a “Low Water Level Lockout” set point in the storage tank that will prevent the booster pumps from operating if the storage tank is near empty.

The booster pumps and an air compressor will operate to maintain the pressure in the hydropneumatic tank and distribution system between 50 and 60 psi. When the water level in the hydropneumatic tank drops to the set elevation, the booster pumps will be energized. The booster pumps will be turned off when the water level has once again reached the desired level. The air compressor will be controlled based on the pressure in the hydropneumatic tank.

The greensand filters will have the capability to automatically backwash based on a set time period, by a pressure differential setpoint, or when manually initiated.

Backwashing will be achieved by the booster pumps pulling water from the atmospheric storage tank.

The chlorine and potassium permanganate feed systems will be controlled so that when the well pumps are operating, the chemicals will be injected into the raw water.

V. PRELIMINARY COST ESTIMATE

We have prepared a preliminary cost estimate of the water system, excluding the cost to drill the wells and installation of the distribution system. We have made assumptions of how far the wells are from the treatment facility. We estimate that the construction cost for the facility is \$675,625. A detailed cost estimate is provided in Appendix D.

VI. CONCLUSION AND RECOMMENDATIONS

The proposed water system will consist of two drilled groundwater wells, each with a minimum capacity of 40.5 gpm. The well pumps will transfer raw water to the water treatment facility, which will be housed inside a pre-cast concrete building. Upon entering the facility, chlorine and potassium permanganate will be added to the raw water. After chemical injection, the raw water will pass through one of two parallel greensand filters for iron and manganese removal. After treatment, the water will be held in the atmospheric storage tank. Booster pumps and a hydropneumatic tank will pressurize the distribution system and maintain system pressure between 50 and 60 psi. An emergency generator will provide backup power to the facility upon a power failure.

A process schematic for the system is provided in Appendix B and preliminary site and mechanical layouts are provided in Appendix C. A preliminary construction cost estimate was prepared and is included in Appendix D. The total estimated construction cost for the water facility is \$675,625.

In order for the project to move forward, the next step is conducting the detailed hydrogeologic study. The hydrogeologic study will identify the proposed well sites and provide well testing data to include stabilized well yields and water quality data.

APPENDICIES

APPENDIX A – PRELIMINARY HYDROGEOLOGIC REPORT



December 8, 2014

Mr. Ken Baybutt
Bowman Consulting
460 McLaws Cir, Suite 120
Williamsburg, VA 23185

Re: Corsair Terrace Project, Spotsylvania County, Virginia
Via email to Ken Baybutt <kbaybutt@bowmanconsulting.com>

Dear Mr. Baybutt,

Maevelle Energy, LLC (ME) is pleased to provide you with this report concerning our preliminary evaluation of the Corsair Terrace Properties site in Spotsylvania County, Virginia. We evaluated the site for water supply potential based on existing information and a brief site visit. The property in question is located along the northeastern shore of the northwest-southeast trending Lake Anna. The site is just to the north of Courthouse Road (State Route 208), and straddles a small private road named Corsair Terrace which ends a few hundred yards past the site to the north. A majority of the site consists a peninsula jutting into Lake Anna to the west of Corsair Terrace road; bounded by Shaffer's Cove to the south and Pigeons Run to the north. A portion of the site also lies to the east of Corsair Terrace road. The site is 46.97 acres and includes Spotsylvania County lots 69-5-A5 and 69-5-B.

An 81 unit housing development is proposed for the property which would be served by a public water system fed by at least two water wells. The average day demand for the project based on design flows of 360 gal/day/unit is 29,160 gal/day, or 20.25 gal/min over a 24 hour period. Using a typical peaking factor of two, as is often done when designing a new public water system with no record of flow monitoring, a total yield of around 40 gpm should be planned to meet peak demands. State of Virginia regulations call for at least 0.5 gpm of flow for each unit, so this would also translate into a required total yield of 40.5 gpm. A minimum of two wells are planned to supply this total demand, providing some redundancy in the system, and satisfying requirements that a system of this size be served by two wells.

Our preliminary evaluation consisted of a non-stereoscopic fracture trace analysis, examination of existing geologic mapping, a review of a previous studies in the area, an analysis of nearby well information using federal databases, and a site visit. Based on this information, the site has a strong likelihood of finding sufficient water to meet demands, although there is of course no guarantee of that. I have identified several areas where wells might be promising. Depending on site plans, access, and other factors, these areas should be further investigated to determine

Maevelle Energy, LLC
11921 Freedom Drive, Suite 550
Reston, VA 20190
www.maevelleenergy.com

exact drilling locations. This would include a more detailed study of nearby wells, additional remote sensing and fracture trace analysis, and most importantly **on-site geophysical surveying**, to identify exact drilling sites.

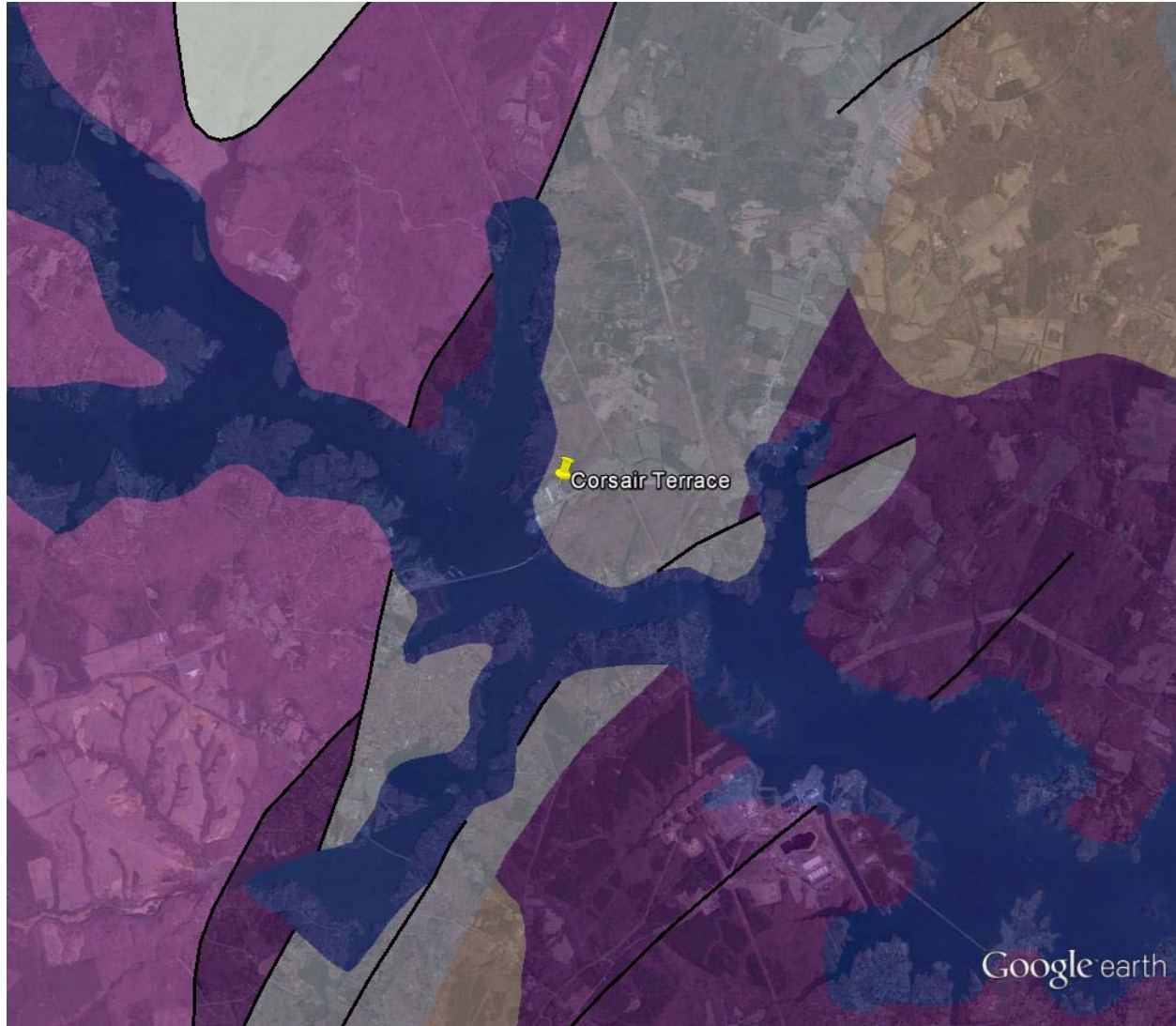
The site is considered to be favorable for producing the required volumes of water based on the following findings.

1. Existing Geologic Mapping

The review of existing geologic mapping shows the site to be underlain by the Quantico Formation, a slate or porphyroblastic schist, locally containing felsic metatuff, metagreywacke, with micaceous quartzite interbeds. (Digital Representation of the 1993 Geologic Map of Virginia", 2003). This is a metamorphic rock, where water is transmitted through faults and fractures in the rock. The rock type itself is somewhat favorable for the formation of fractures, with the quartzite interbeds being particularly suited to fracturing. Some of the largest yielding wells in the area are drilled into this formation, including those serving the Village of Mineral. Locating high yielding wells in this unit (or any type of crystalline metamorphic rock) requires locating major fracture zones or faults; these being the zones transmitting large volumes of water.

In addition to favorable rock type, the contacts between the Quantico formation and the adjacent geologic units are mapped as major faults (prime areas for groundwater movement). There are several major faults passing through the Quantico formation, the site being situated between two of these mapped major faults, and on strike with a third to the north. Because of this, it is possible that the fault to the north extends under the site, and/or that smaller unmapped faults might exist on the property. Faults, and the areas near them, are usually the best areas for drilling in metamorphic rocks, and they can often be detected using geophysical methods.

Figure 1 Quantico Formation (grey) and nearby faults (black lines)

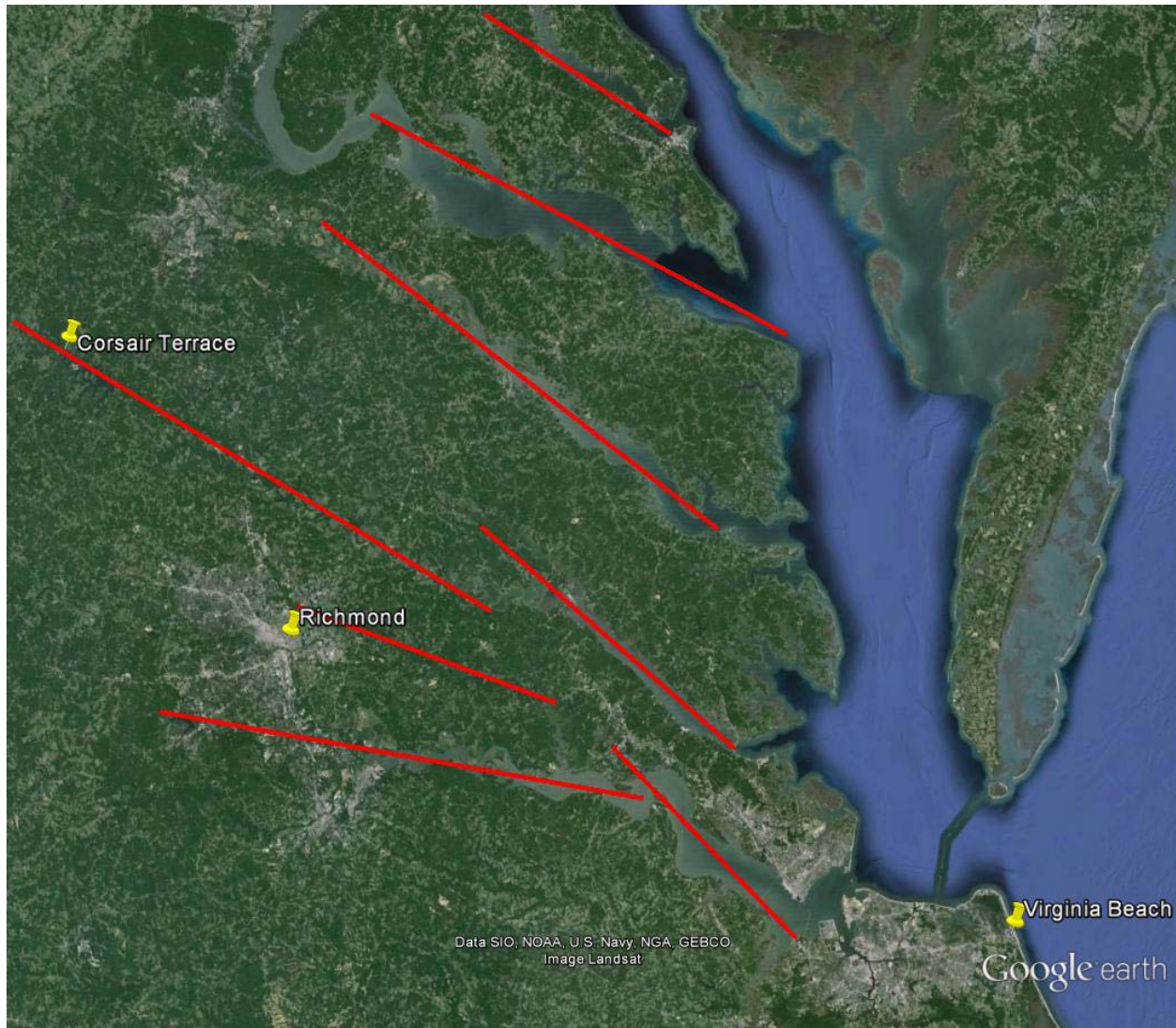


2. Fracture Trace Analysis

Because groundwater flows in fractures in this type of rock, a very limited analysis of fracture patterns was undertaken using Google Earth imagery. The analysis first looks at very large, regional patterns. Lineaments were mapped and are shown below in Figure 2. The long axis of Lake Anna is observed to follow a major lineament; one that is consistent with other large scale lineaments in the region controlling major drainage basins. This major lineament passes very close to (or perhaps even under) the site. It is

a very favorable location for drilling, in fact the most favorable in the area. In general, the closer to this lineament one drills, the higher the probability of success.

Figure 2: Regional Fracture Pattern



Closer examination of the areas surrounding Lake Anna reveals a more detailed pattern of fractures, Figures 3 and 4 below, indicating the site as being in a very favorable location at the intersection of several significant lineaments. Note the very large lineament trending almost east west and passing near and perhaps through the site. Several large yielding wells are located along the trace of this lineament, which controls the orientation of the east trending branch of the North Anna River as it forks to the northwest of the site. This east west lineament intersects the 'Lake Anna Lineament' in the vicinity of the site as well as another north south trending lineament in the area;

which passes along the eastern side of Lake Anna State Park (which also has a good yielding well) and to the west of our site. This north south lineament controls the orientation of Pigeons Run.

Figure 3: Local Fracture Pattern

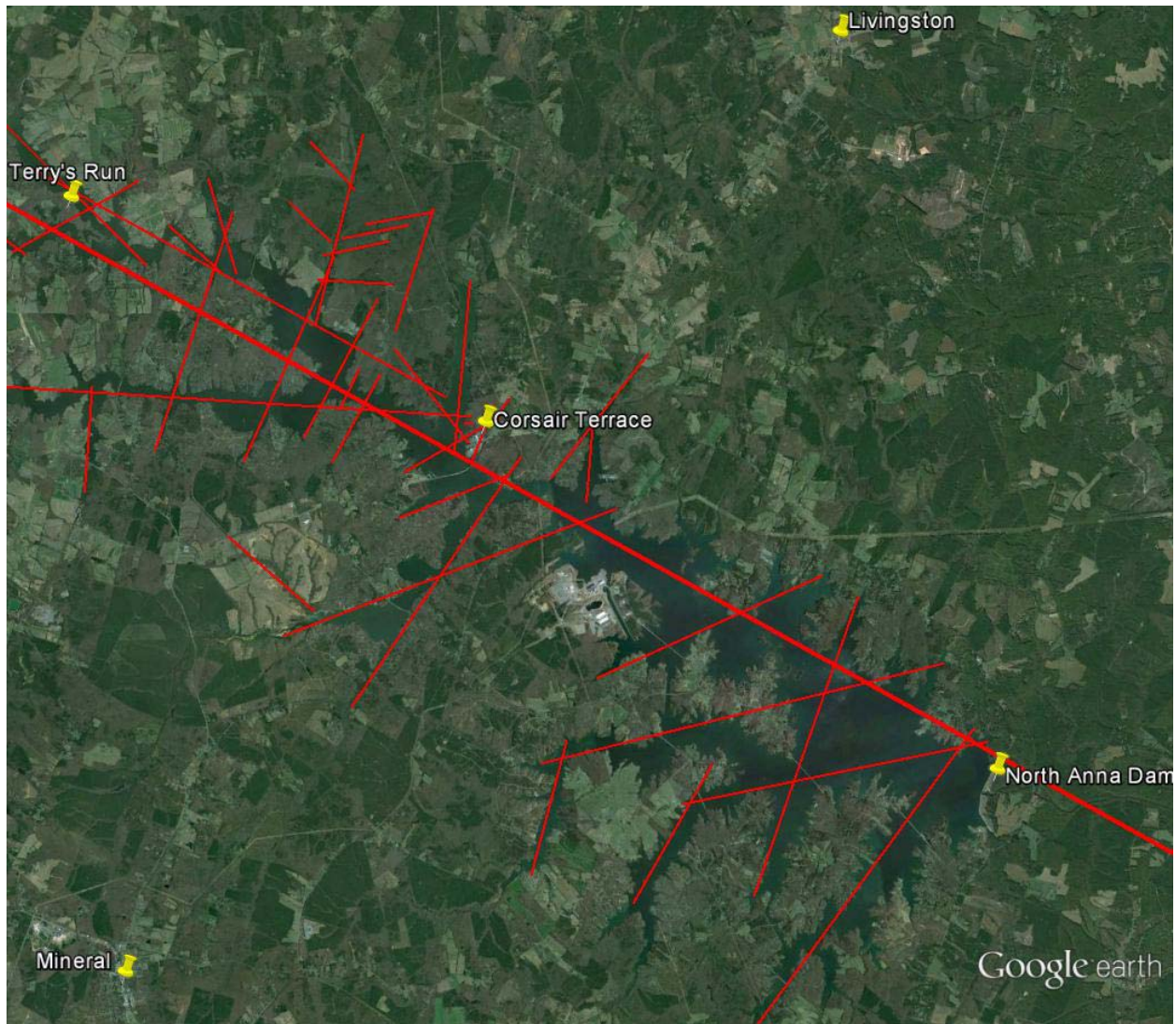
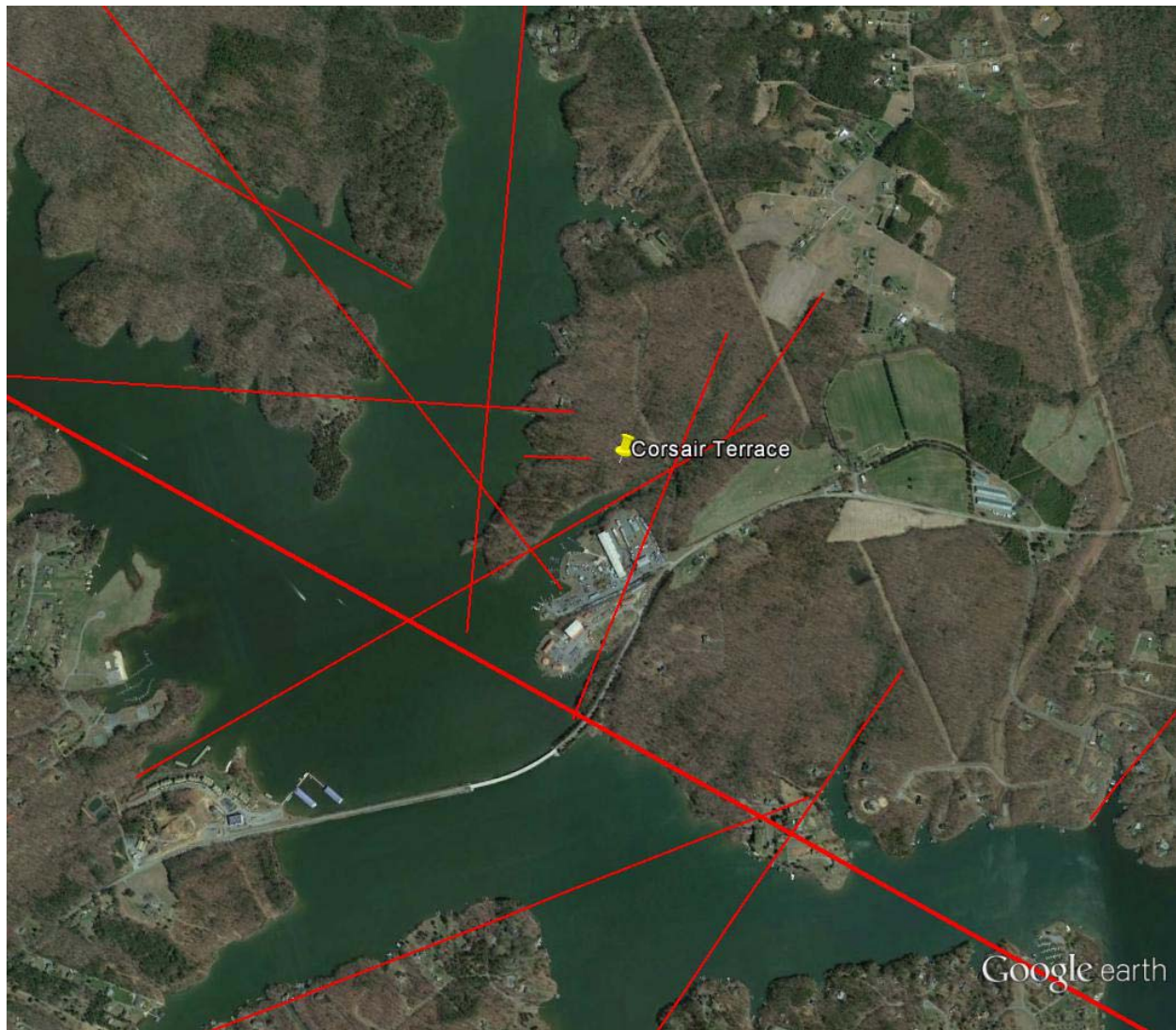
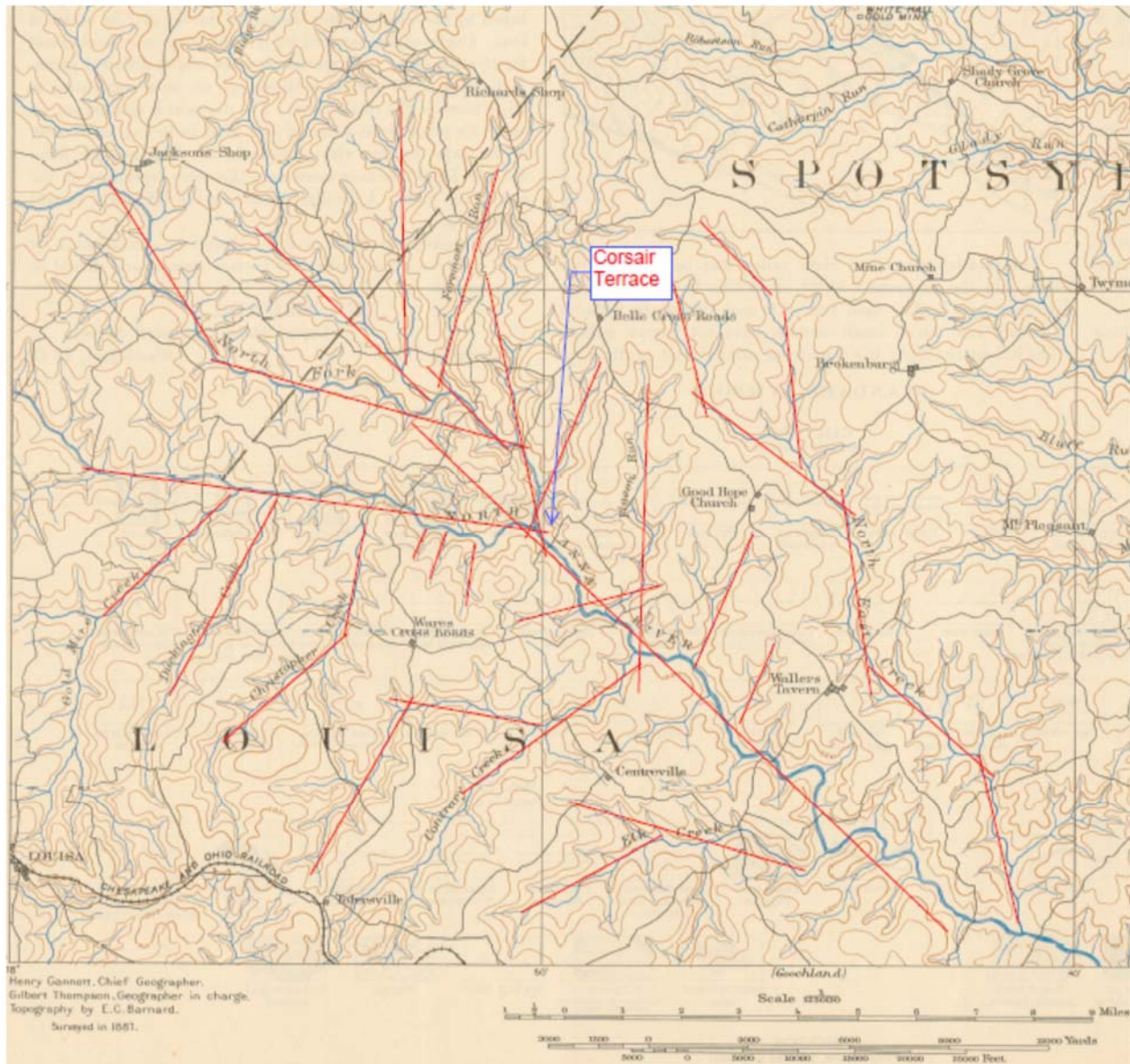


Figure 4 Site Fracture Pattern

Further analysis was conducted on historical USGS Topographic maps. These 1892 maps reveal the natural topography before Lake Anna was created, and before the landscape was modified by modern transportation or buildings. Fracture patterns plotted on this map reveal the intersection of several major fractures in the vicinity of the site, a very favorable finding relative to the prospect of finding water.

Fig 5 Historical Map Fracture Pattern



3. True North Environmental Report

A "Limited Groundwater Assessment Study", August 23, 2012, was prepared regarding the Terry's Run property, located about 5.5 miles upriver along Lake Anna, and situated in almost the same position geologically with respect to the "Lake Anna Lineament" although in a different rock type (granite instead of schist), see Figure 3 above. The report concluded the site is suitable for the development of drinking water supplies to serve a ten lot subdivision without undue adverse impact

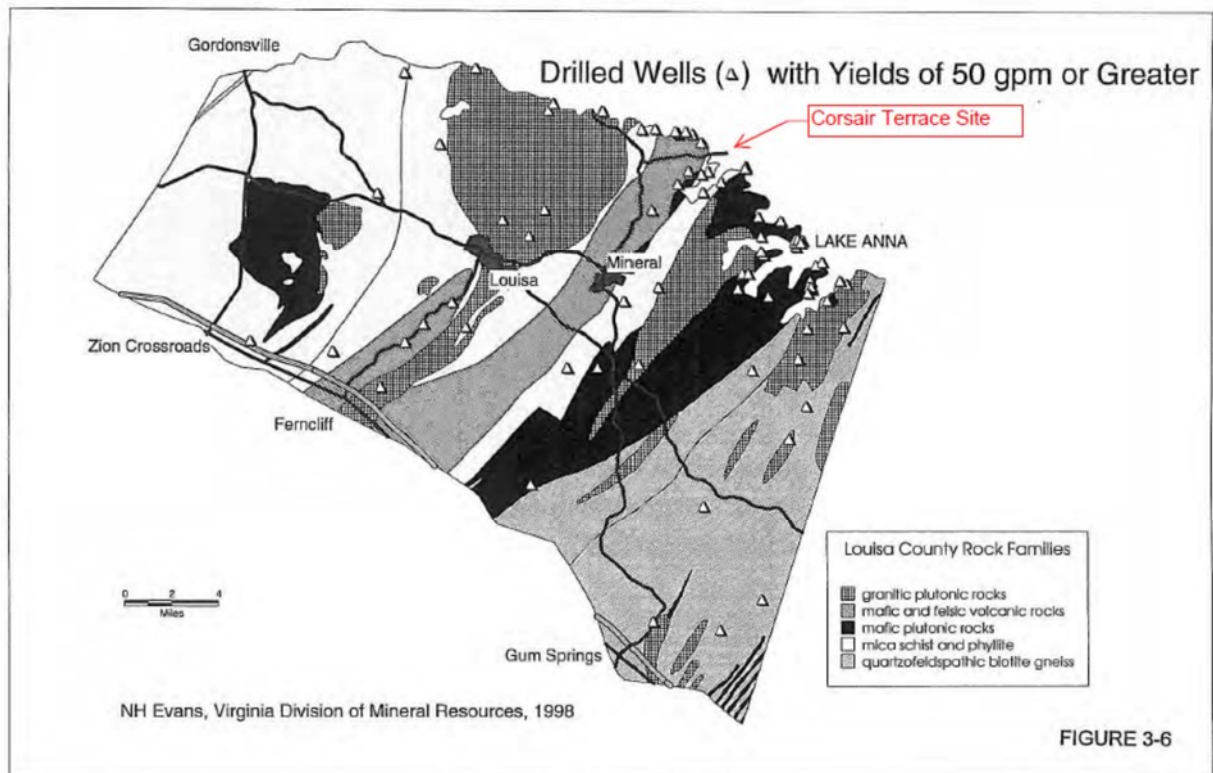
to nearby wells. Private and public well records presented in this report to support this conclusion include several high yielding public wells that are in fact very near our site (High Point Marina, Anna Point Marina) and still other public wells also near our site that have had high yields documented via pumping tests (Lake Anna State Park, Duke's Creek Marina). Some of these wells are very close to, almost abutting our site, indicating that high yields are possible on our site.

4. 1998 Well Study

The County of Louisa Water Quality Management Plan and Groundwater Study (unpublished by Nick Evans) 1998 includes a review of all the wells in Louisa County. There are three significant findings from that report, relevant to our site. First, that report shows a correlation between high yield wells and proximity to Lake Anna, the closer to the lake, the greater likelihood of high yield. That study showed 82 high yield wells (50gpm+) with 50 wells (61%) located in the immediate vicinity of Lake Anna. For this reason alone, the site is in a favorable location. This is likely a result of the major lineament discussed above.

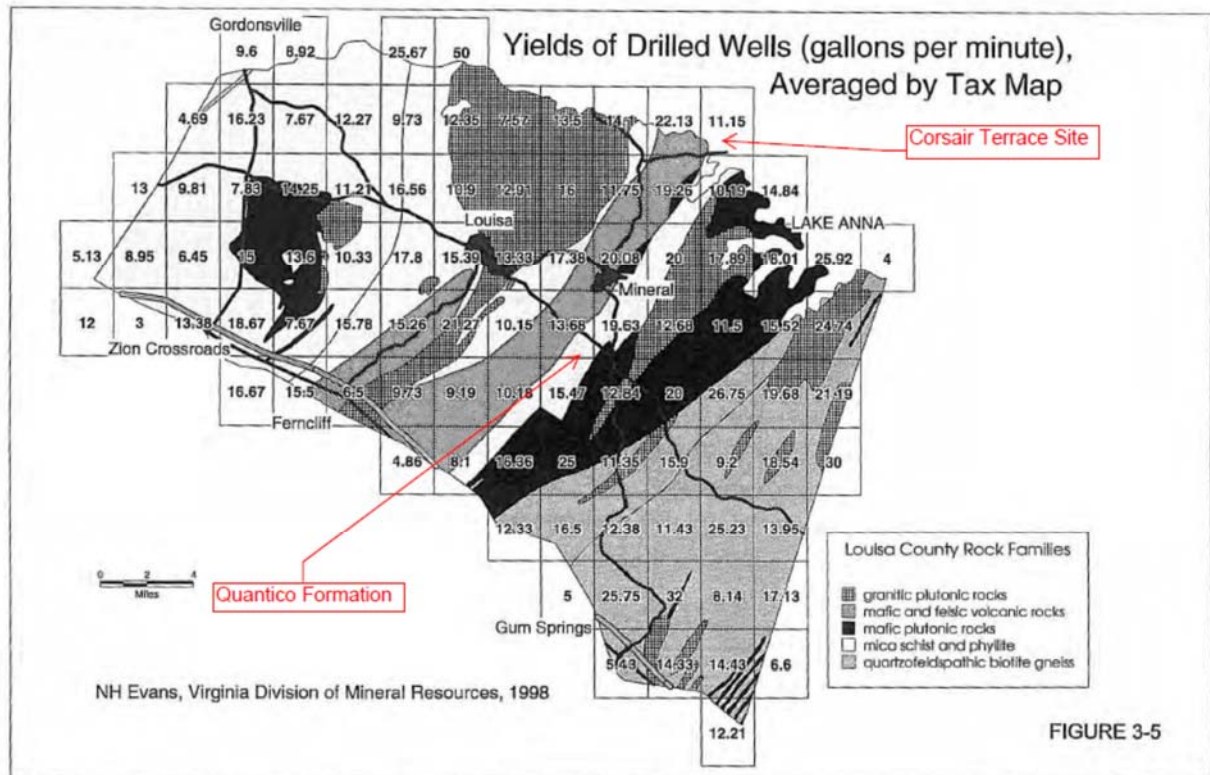
In addition, note in Figure 6 below that a large majority of these high yielding wells seem to cluster in the vicinity of the site, where the Quantico Formation intersects the Lake Anna Lineament.

Fig 6 High Yield Well Pattern



Finally, this 1998 study also shows that wells drilled into the Quantico Formation tend to have high yields, with average yields ranging from around 11gpm to as high as 20 gpm for the quadrangles that show some of this formation. Keep in mind these are randomly drilled wells, nearly all drilled until sufficient yield for a residential supply is found. Scientifically sited wells seeking higher yields, would tend to average higher.

Fig 7 High Average Yields for Quantico Formation



5. Nearby Well Analysis- Federal Databases

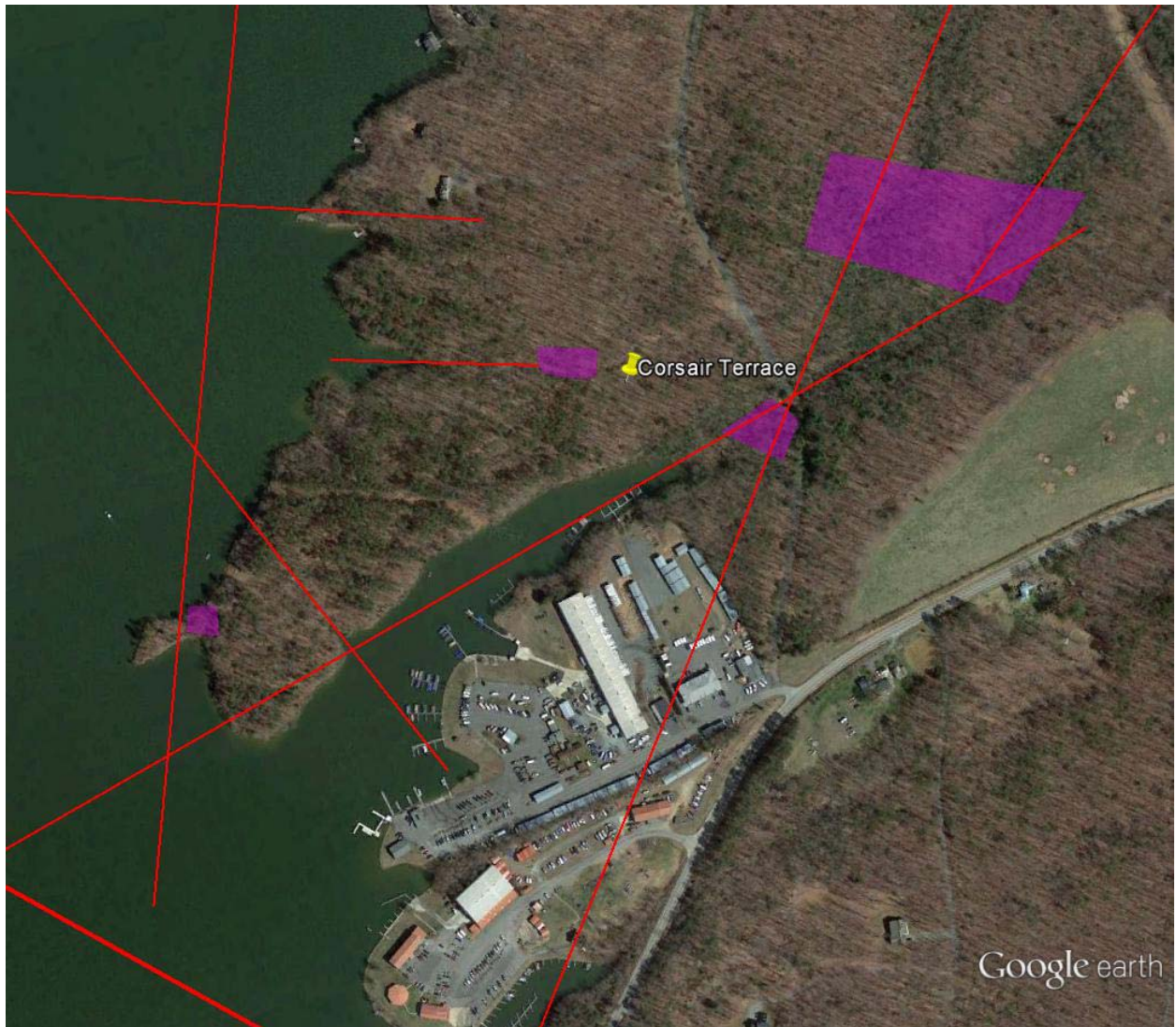
To supplement the previous well studies in the area, well locations from federal databases such as Storet were plotted and analyzed. That analysis supported previous findings of higher yields near Lake Anna. In addition to the previously identified high yielding public wells at the nearby marinas and Lake Anna State Park, this analysis includes details on high yielding wells at the North Anna Nuclear Plant, and the Village of Mineral. The distribution patterns of high yielding wells in conjunction with observed fracture traces and published geological mapping suggest the site has excellent potential for developing high yielding wells.

6. Site Visit- Target Areas

The site was walked on December 3, 2014 to observe site conditions and identify areas with the highest potential for geophysical studies to select sites. As a result of this, four areas have been identified as shown below. These are not precise areas,

but general locations identified for further study. I have marked up one of the site plans and attached it to this document, showing these areas. The prime site would be the one farthest west near the shore of Lake Anna, provided a site can be found in this area that shows a good geophysical signature and is not within the restricted riparian zone. The small site adjacent Corsair Terrace Road may be difficult to access. Geophysical surveying would be relatively easy, especially given the long road access across the site to the westernmost target area. The wooded areas are relatively open and geophysical surveying would be feasible and efficient.

Fig 8 Drilling Target Areas





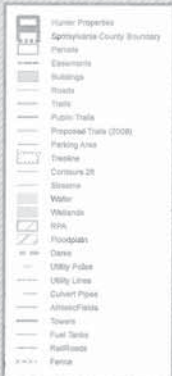
Please let me know if you have any questions.

Sincerely,

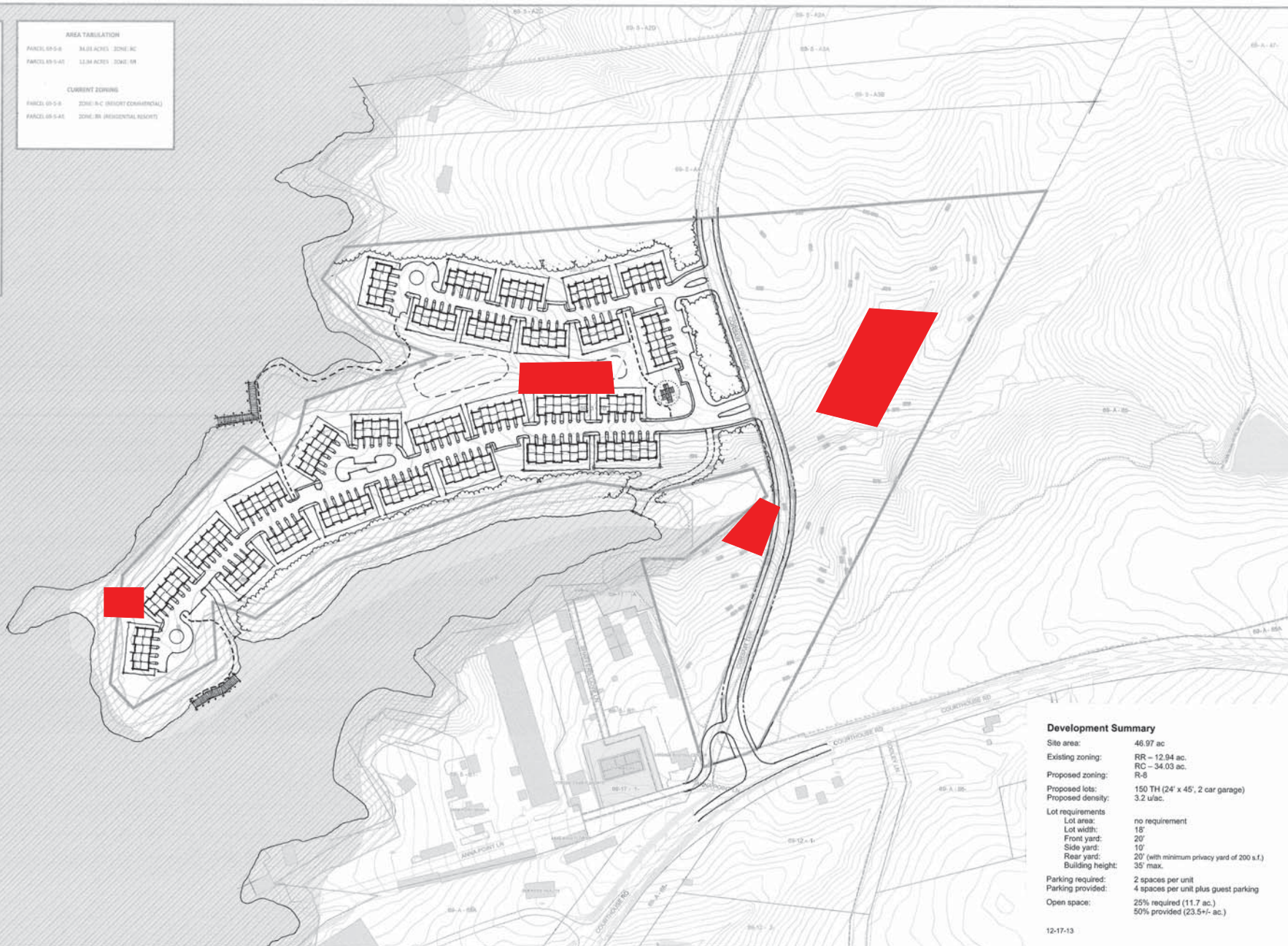
MAEVELLE ENERGY, LLC

A handwritten signature in black ink that reads "Kenneth E. Bannister". The signature is written in a cursive, flowing style.

Kenneth E. Bannister, CPG



| AREA TABULATION | | |
|-----------------|---------------------------------|----------|
| PARCELS 69-5-6 | 34.03 ACRES | ZONE: RC |
| PARCELS 69-5-45 | 12.94 ACRES | ZONE: RR |
| CURRENT ZONING | | |
| PARCELS 69-5-6 | ZONE: R-C (RESIDENT COMMERCIAL) | |
| PARCELS 69-5-45 | ZONE: RR (RESIDENTIAL RESORTS) | |



Development Summary

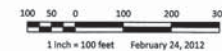
| | |
|-------------------|---|
| Site area: | 46.97 ac |
| Existing zoning: | RR - 12.94 ac. RC - 34.03 ac. |
| Proposed zoning: | R-8 |
| Proposed lots: | 150 TH (24' x 45', 2 car garage) |
| Proposed density: | 3.2 u/ac. |
| Lot requirements | |
| Lot area: | no requirement |
| Lot width: | 18' |
| Front yard: | 20' |
| Side yard: | 10' |
| Rear yard: | 20' (with minimum privacy yard of 200 s.f.) |
| Building height: | 35' max. |
| Parking required: | 2 spaces per unit |
| Parking provided: | 4 spaces per unit plus guest parking |
| Open space: | 25% required (11.7 ac.) 50% provided (23.5+/- ac.) |

12-17-13

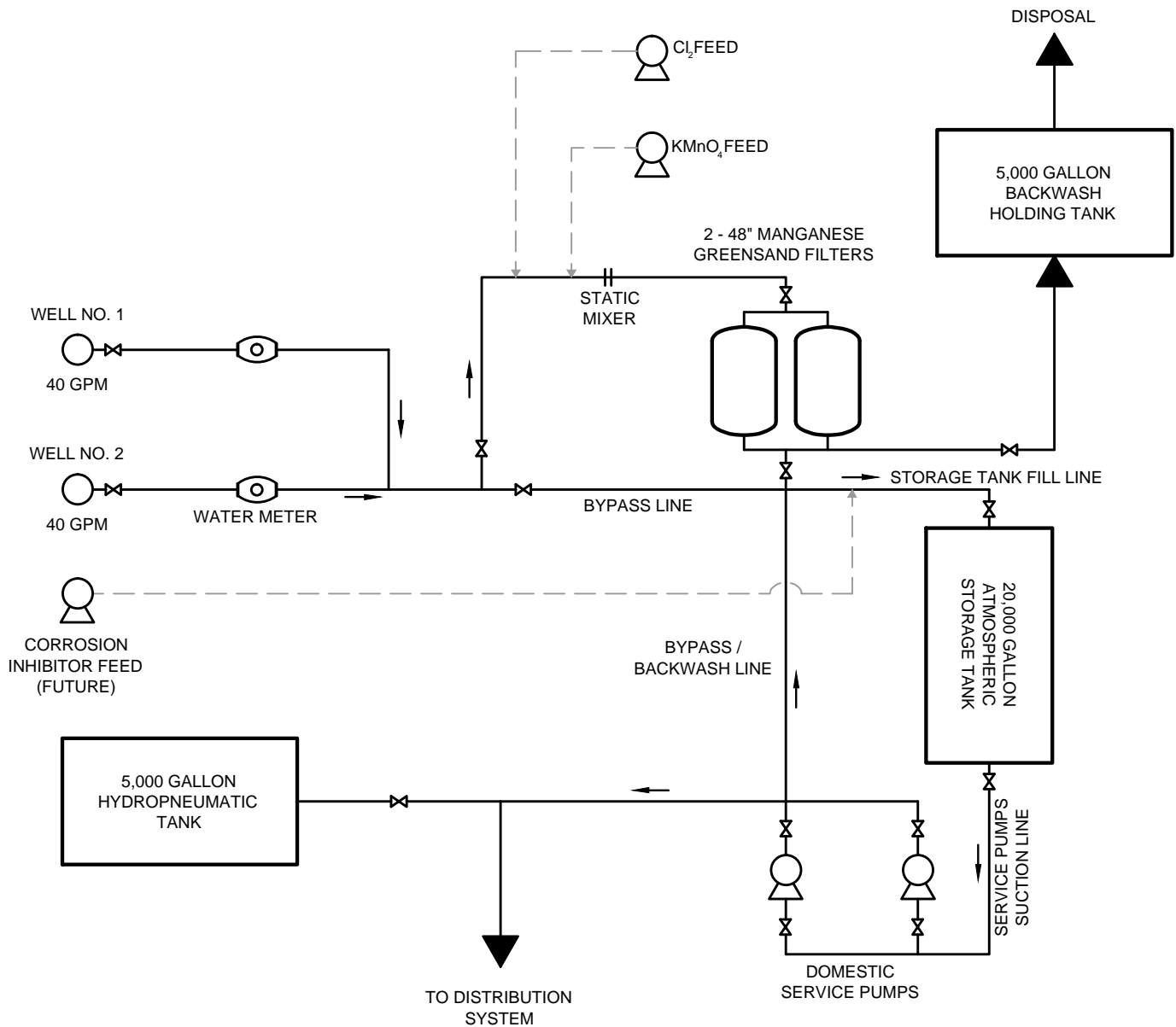


CORSAIR TERRACE PROPERTIES

SPOTSYLVANIA COUNTY, VIRGINIA



APPENDIX B – HYDRAULIC PROCESS SCHEMATIC



DWG: 6996-WPER-FIGS

SCALE: N.T.S. JAN. 16, 2015

Bowman
CONSULTING

TOWNS AT POINT SEANNA WATER SYSTEM

Bowman Consulting Group, Ltd. Phone: (757) 229-1776
460 McLaws Circle, Suite 120 Fax: (703) 229-4683
Williamsburg, Virginia 23185 www.bowmanconsulting.com

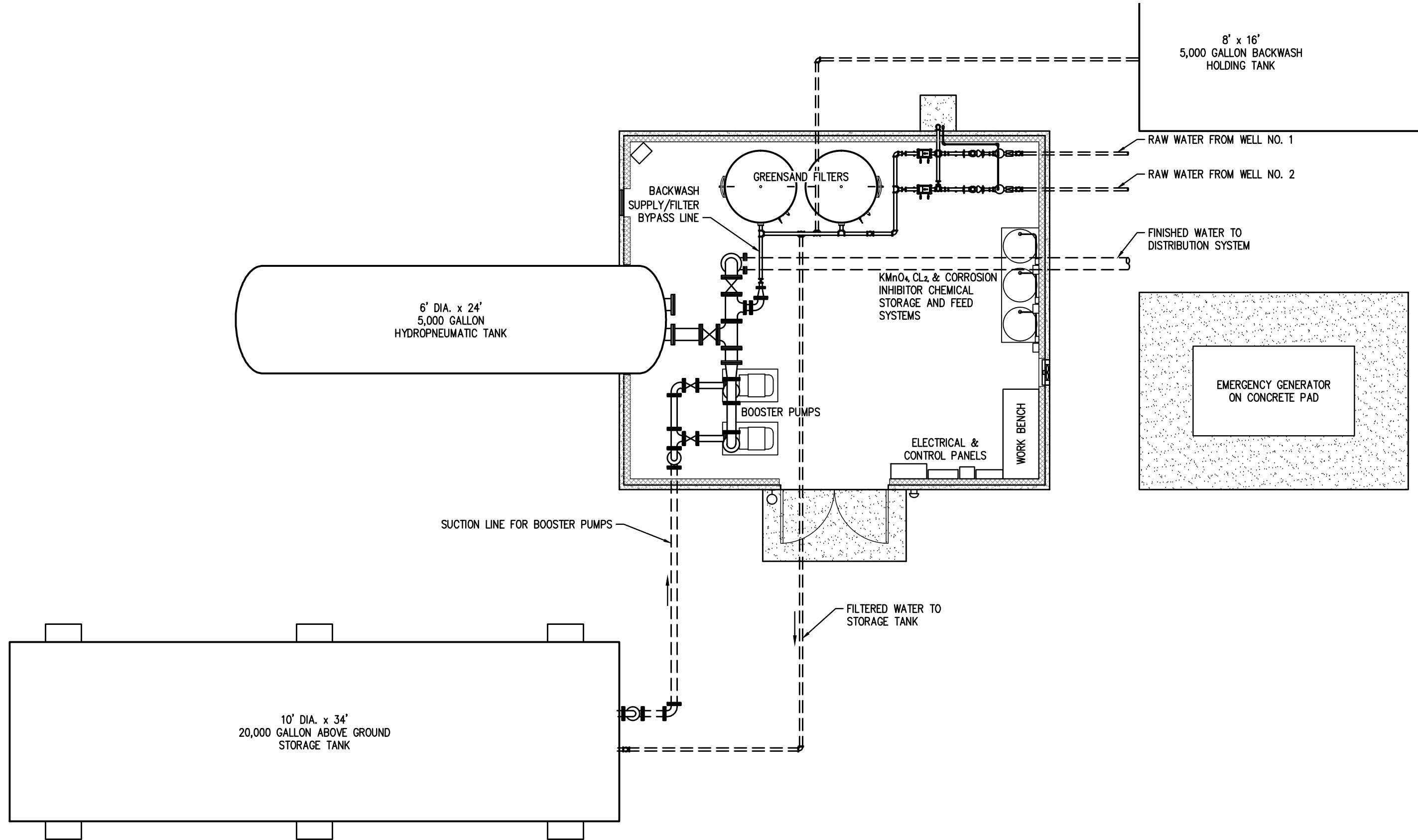
HYDRAULIC PROCESS SCHEMATIC

APPENDIX C – PRELIMINARY LAYOUTS

Sheet 1: Potential Well and Water Treatment Plant Locations

Sheet 2: Preliminary Mechanical Layout

Sheet 3: Preliminary Site Layout

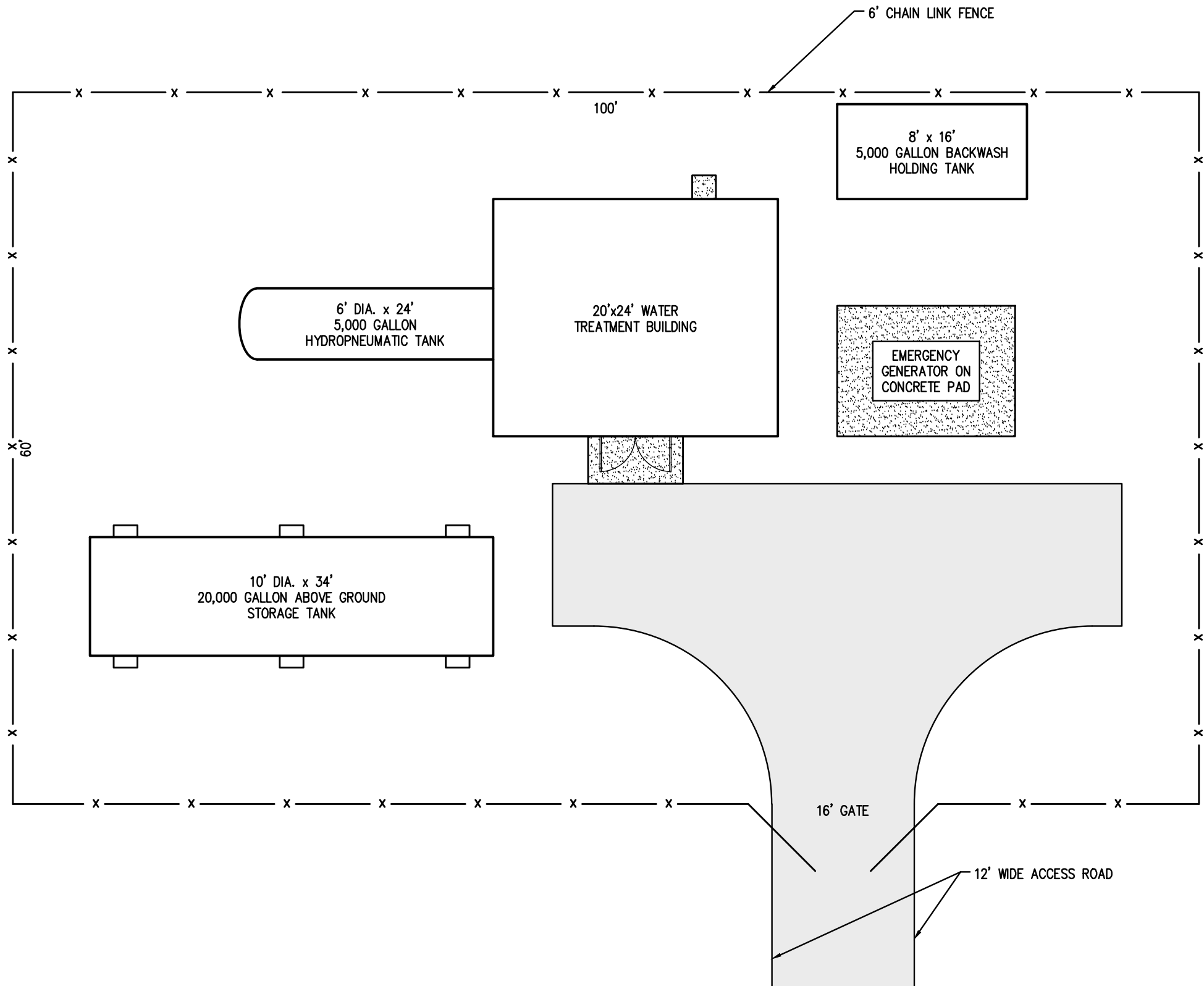


PRELIMINARY MECHANICAL LAYOUT
TOWNS AT POINT SEANNA
WATER SYSTEM

| | | |
|----------|-----------------------|------|
| KDO | DWD | KMB |
| DESIGN | DRAWN | CHKD |
| SCALE | H: 3/16"=1' V: N/A | |
| JOB No. | 6996-01-001 | |
| DATE : | JAN. 16, 2015 | |
| FILE No. | 6996-WPER | |
| SHEET | 2 | OF 3 |

Bowman Consulting Group, Ltd.
460 McLaws Circle
Suite 120
Williamsburg, Virginia 23195
Phone: (757) 228-1776
Fax: (757) 229-4683
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

Bowman
CONSULTING



Bowman Consulting Group, Ltd.
460 McLaws Circle
Suite 120
Williamsburg, Virginia 23195
Phone: (757) 228-1776
Fax: (757) 229-4683
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

Bowman
CONSULTING

PRELIMINARY SITE LAYOUT
TOWNS AT POINT SEANNA
WATER SYSTEM

| | | |
|----------|---------------|--------|
| KDO | DWD | KMB |
| DESIGN | DRAWN | CHKD |
| SCALE | H: 1"=10' | V: N/A |
| JOB No. | 6996-01-001 | |
| DATE : | JAN. 16, 2015 | |
| FILE No. | 6996-WPER | |
| SHEET | 3 | OF 3 |

APPENDIX D – PRELIMINARY COST ESTIMATE



460 McLaws Circle, Suite 120
 Williamsburg, VA 23185
 Phone: 757-229-1776
 Fax: 757-229-4683
www.bowmanconsulting.com

TOWNS AT POINT SEANNA WATER SYSTEM

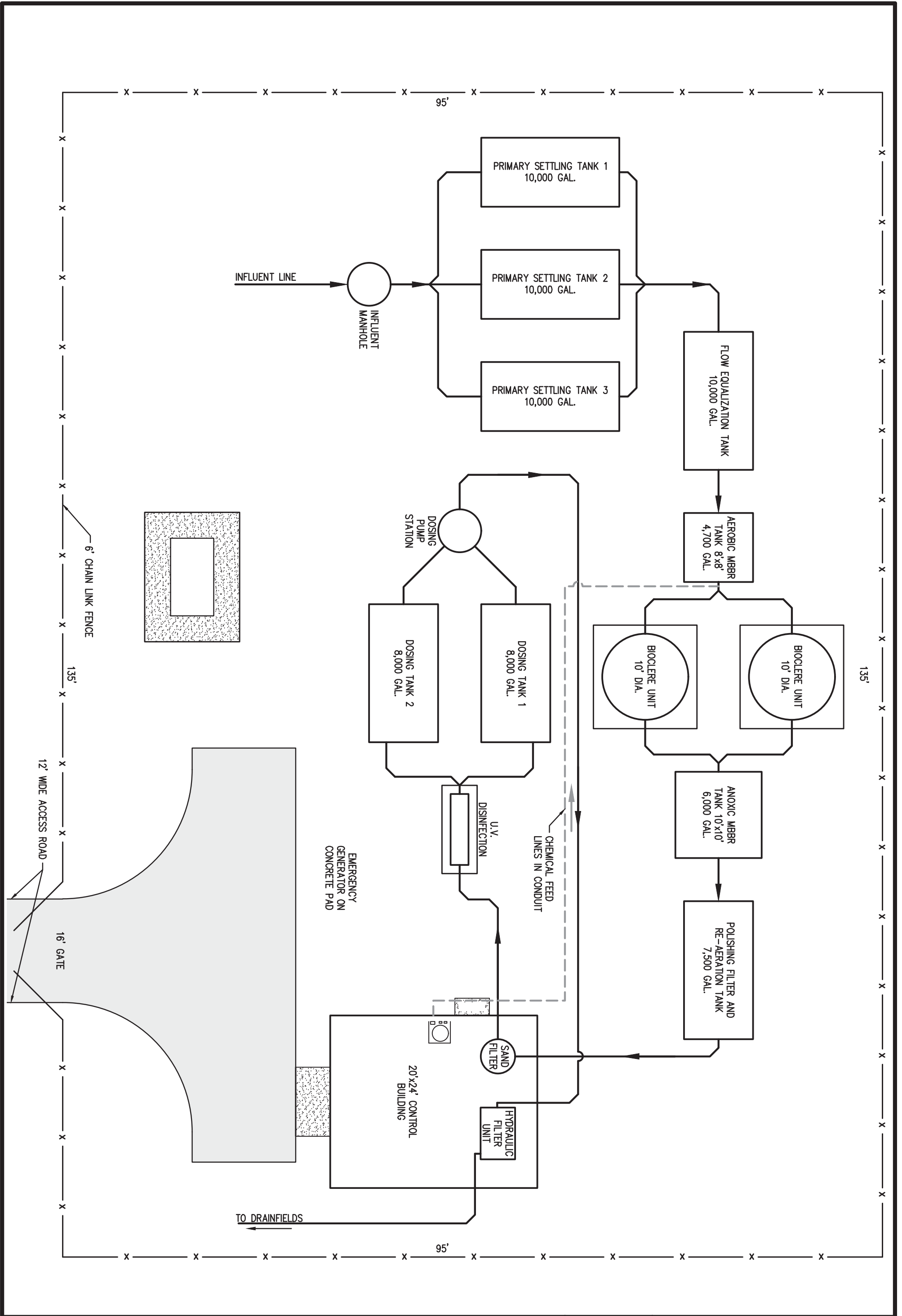
PRELIMINARY CONSTRUCTION COST ESTIMATE

| Item | Description | Quantity | Unit | Unit Cost | Total Cost |
|---|---|----------|------|------------|-------------------|
| 1 | Mobilization/Demobilization/Bonds/Permits | 1 | LS | \$ 15,000 | \$ 15,000 |
| 2 | Site Work | 1 | LS | \$ 20,000 | \$ 20,000 |
| 3 | Well Pump with Pitless Unit | 2 | EA | \$ 15,000 | \$ 30,000 |
| 4 | Pump Control Panel | 2 | EA | \$ 15,000 | \$ 30,000 |
| 5 | Site Piping at Water Treatment Building | 1 | LS | \$ 10,000 | \$ 10,000 |
| 6 | Raw Well Water Transmission Piping | 1000 | LF | \$ 20 | \$ 20,000 |
| 7 | Booster Pumps | 2 | EA | \$ 10,000 | \$ 20,000 |
| 8 | Atmospheric Storage Tank | 20,000 | GAL | \$ 2 | \$ 40,000 |
| 9 | 5,000 Gal Hydropneumatic Tank | 1 | LS | \$ 35,000 | \$ 35,000 |
| 10 | Greensand Filtration System Incl Controls | 1 | LS | \$ 100,000 | \$ 100,000 |
| 11 | Backwash Holding Tank and Pumps | 1 | LS | \$ 25,000 | \$ 25,000 |
| 12 | Sodium Hypochlorite Feed System | 1 | LS | \$ 7,500 | \$ 7,500 |
| 13 | Potassium Permanganate Feed System | 1 | LS | \$ 7,500 | \$ 7,500 |
| 14 | Well Entry Piping Including Water Meter | 1 | LS | \$ 7,500 | \$ 7,500 |
| 15 | 20' x 24' Precast Building | 1 | LS | \$ 65,000 | \$ 65,000 |
| 16 | Emergency Generator | 1 | LS | \$ 65,000 | \$ 65,000 |
| 17 | Extend Electrical Service to Site | 1 | LS | \$ 40,000 | \$ 40,000 |
| 18 | Misc Piping & Valves | 1 | LS | \$ 10,000 | \$ 10,000 |
| 19 | Misc Equipment | 1 | LS | \$ 10,000 | \$ 10,000 |
| 20 | Misc Electrical | 1 | LS | \$ 30,000 | \$ 30,000 |
| Construction Subtotal: | | | | | \$ 587,500 |
| Contingency (15% of Const.Subtotal): | | | | | \$ 88,125 |
| Total Construction Cost: | | | | | \$ 675,625 |

Bowman Consulting Group, Ltd.

**460 McLaws Circle
Suite 120
Williamsburg, Virginia 23185
Phone: 757-229-1776
Fax: 757-229-4683**

bowmanconsulting.com



Spotsylvania Health Department
P.O. Box 126
Spotsylvania, Virginia 22553

6250
AREA CODE (540) 507-7400
FAX (540) 582-2572
EH FAX (540) 582-7295

October 16, 2017

S. Michael Lynn
SES Mid Atlantic, LLC
9251 Industrial Court, Suite 101
Manassas, VA 20109

RE: The Towns at Point Seanna proposed mass drainfield

Dear Mike:

This Certification Letter is issued in lieu of a sewage disposal system construction permit in accordance with §32.1-163, et seq., of the Code of Virginia. The Board of Health hereby recognizes that the soil and site conditions acknowledged by this correspondence, and documented by additional records on file at the local health department, are suitable for the installation of an onsite sewage disposal system. The attached plat shows the approved areas for the sewage disposal system. This letter is valid until a permit for construction is issued and the system is installed, inspected and approved. This letter is void if there is any substantial physical change in the soil or site conditions where the sewage disposal system is to be located.

The application for a certification letter was submitted pursuant to § 32.1-163.5 of the Code of Virginia which requires the Health Department to accept private soil evaluations and designs from an Onsite Soil Evaluator (OSE) or a Professional Engineer working in consultation with an OSE for residential development. The sites for the large onsite sewage system (mass drainfield) were certified as being in compliance with the Board of Health's regulations by Peter M. Brooks, PE. This letter is issued in reliance upon that certification. The preliminary design has been submitted under Code of Virginia 32.1-163.6.

A permit to construct the sewage disposal system must be issued before construction of the system. If the property owner (current or future) applies for a construction permit within 18 months of the date of this letter, the application fee paid for this letter shall be applied to any state fees for a permit to construct a sewage disposal system. After 18 months, the applicant is responsible for paying all state fees for a permit application.

This letter, and accompanying plat of survey showing the specific location of the sewage disposal system areas and well areas (if applicable), may be recorded in the land records by the clerk of the circuit court in the jurisdiction where all or part of the sites or proposed sites of the system is to be located. The plat titled "Overall Layout - The Towns at Point Seanna" that is attached to this certification letter is signed and sealed by David T. McElhaney of Urban and dated August 1, 2017. The sites shown on the plat are specific and must not be disturbed or encroached upon by any construction. To do so voids this letter. Upon the sale or transfer of the land that is the subject of this letter, the letter shall be transferred with the title to the property.

Future owners are advised to review the plat for the location of the onsite sewage disposal areas to make sure their building plans do not interfere with the areas. If they have any questions regarding the location of the areas, they should contact the local health department and individuals certifying compliance of the system for assistance.

The area evaluated, and certified by this letter, is suitable to accommodate 85 townhome units consisting of 3 to 4 bedrooms each with 280 gallons per day flow, providing a design of 23,800 gallons per day plus an area reserved for commercial use providing 5627 gallons per day for a grand total of 29,427 gallons of TL-3 treated effluent and TN effluent limitations. The proposed system is planned to utilize MMBR technology and drip dispersal at 12 inches below the natural soil surface. A reserve area of 100% is provided. The property will be served by a community water supply utilizing 2 wells as shown on the attached plat. Attached to this certification letter is documentation dated April 14, 2017 which is the soil and site work prepared by M & M Consultants and a memo dated August 21, 2017 from Michael Lynn of SES Mid-Atlantic, LLC which was in response to VDH comments dated June 19, 2017.

This letter is an assurance that a sewage disposal system construction permit will be issued (provided there have been no substantial physical changes in the soil or site conditions where the system would be located); however, it is not a guarantee that a permit for a specific type of system will be issued. The design of the sewage system will be determined at the time of application for a building permit and sewage system construction permit. The design will be based on the site and soil conditions certified by this letter, structure sizes and location, water well locations (final determination to be made at time of permit issuance), the regulations in effect at the time, and any off-site impacts that may have occurred since the date of the issuance of this letter. Engineered plans shall be required prior to issuance of the construction permit. In accordance with § 32.1-164.1:1 of the Code of Virginia owners are advised to apply for a sewage disposal construction permit only when ready to begin construction.

This certification letter approval has been issued in accordance with applicable regulations based on the information and materials provided at the time of application. There may be other local, state, or federal laws or regulations that apply to the proposed construction of this onsite sewage system. The owner is responsible at all times for complying with all applicable local, state, and federal laws and regulations. If you have any questions, please contact me.

Issued by:



Steven K. Thomas, LPSS, MAOSE
Environmental Health Supervisor
Spotsylvania County Health Department

Att: Site Plan of Drainfield Area
April 14, 2017 Soil and Site evaluation documentation
August 21, 2017 memo of response











TECHNICAL MEMORANDUM

To: Kimberly Pomatto
Spotsylvania County
VDOT
Urban Ltd.

Cc: Alvis H. Hagelis

From: Chad Baird
Nick Alexandrow

Date: May 4, 2015

Subject: Towns at Point Seanna - VDOT Chapter 870 Trip Generation

Executive Summary

The purpose of this memorandum is to evaluate the trip generation for the proposed planning and development of Corsair Terrace (The Towns at Point Seanna) in Spotsylvania County, Virginia. The development will consist of 81 townhouses. The trip generation calculations in this memorandum indicate that the proposed use will generate approximately 535 daily trips on a typical weekday. The VDOT Chapter 870 Threshold is 5,000 additional trips per day. Therefore, a VDOT Chapter 870 study will not be required.

ITE Trip Generation

The trip generation for the proposed planning and redevelopment of Towns of Point Seanna located near the intersection of Route 208 and Anna Point Lane/Corsair Terrace in Spotsylvania County, Virginia will consist of 81 single-family attached dwelling units. A trip generation table was prepared using ITE Trip Generation, 9th Edition and shown in Table 1. Using the ITE rates for Residential Condominium/Townhouse (Land Use Code #230), the proposed development would be expected to generate approximately 44 AM peak hour trips, 51 PM peak hour trips, and 535 total weekday daily trips.

Table 1: Trip Generation

| Land Use | ITE Code | Size | Weekday | | | | | | | Daily |
|-----------------------|----------|-------|--------------|-----|-------|--------------|-----|-------|-------|-------|
| | | | AM Peak Hour | | | PM Peak Hour | | | Total | |
| | | | In | Out | Total | In | Out | Total | | |
| Condominium/Townhouse | 230 | 81 DU | 7 | 37 | 44 | 34 | 17 | 51 | 535 | |

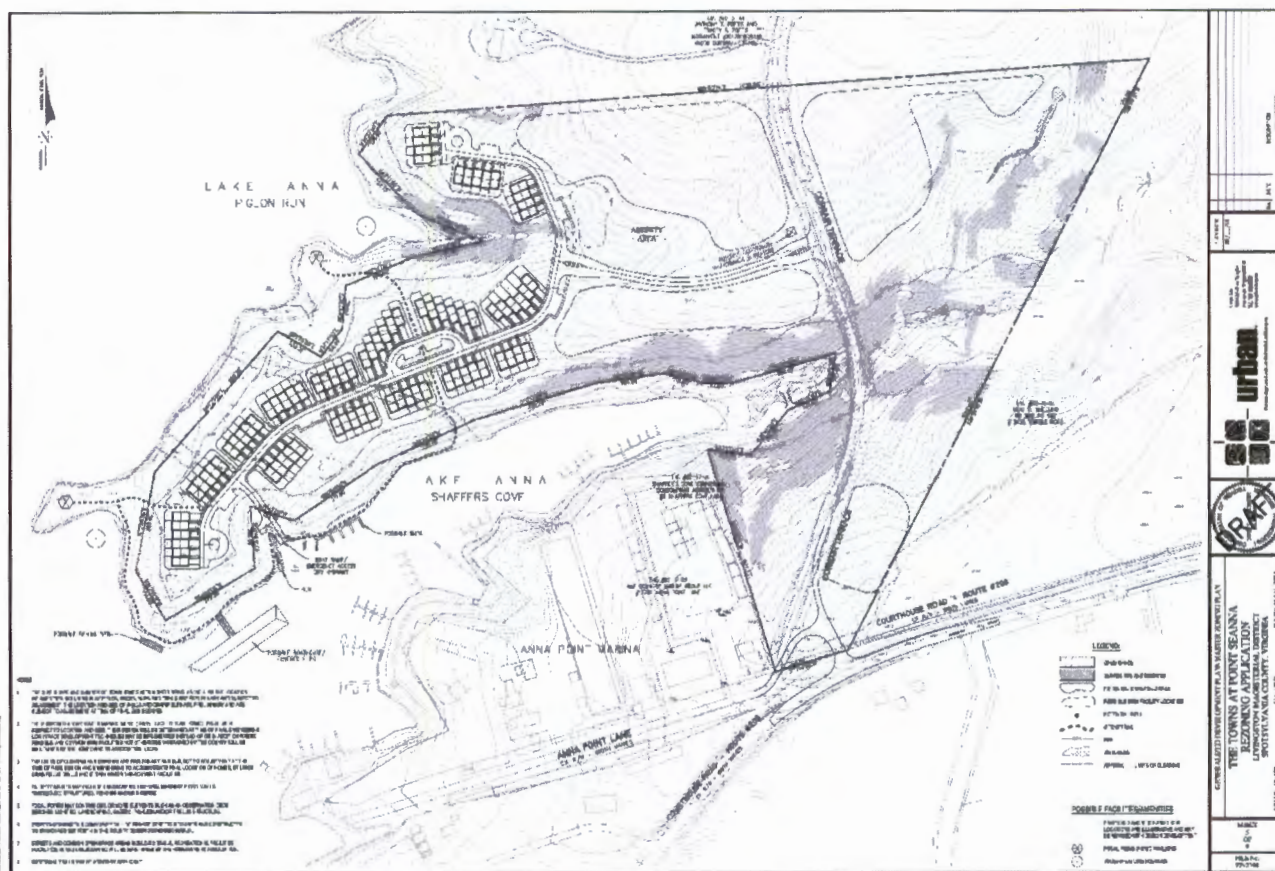


Figure 1: Generalized Master Development Plan - Draft

VDOT 870 Requirements

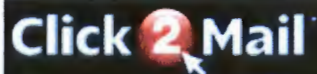
From January 1, 2012 onwards, if a Comprehensive Plan, Rezoning or Site Plan generates more than 5,000 net new daily trips, a Chapter 870 traffic study would need to be prepared for the application and submitted to VDOT for review and comment. To calculate the net new trips, the trips generated by the proposed use are compared to the trips generated by the existing or approved use, with no reductions for TDM measures nor internal capture.

As shown in Table 1, there will be fewer than 5,000 net new daily vehicle trips. As such, a Chapter 870 traffic study will not be needed.

Conclusions

This memorandum evaluates the trip generation for the proposed planning and redevelopment of Corsair Terrace (Towns of Point Seanna) with 81 single-family attached dwelling units located near the intersection of Route 208 and Anna Point Lane/Corsair Terrace in Spotsylvania County, Virginia to determine the need for a VDOT Chapter 870 traffic study.

The trip generation calculations in this memorandum indicate that the proposed use will generate approximately 535 daily trips on a typical weekday. Therefore, a VDOT Chapter 870 study will not be required.

**Invoice #100848612**

Order Date: January 16, 2015

Account: mvisotsky

Order Total: \$350.40**Billing Address**

Mary Ann Visotsky
 7712 Little River Tpke
 Annandale VA 22003-2407
 United States

Payment Method

Credit Card
Credit Card Type: Visa
Credit Card Number: xxxx-8219
Expiration Date: 10/2016



Complete



In progress

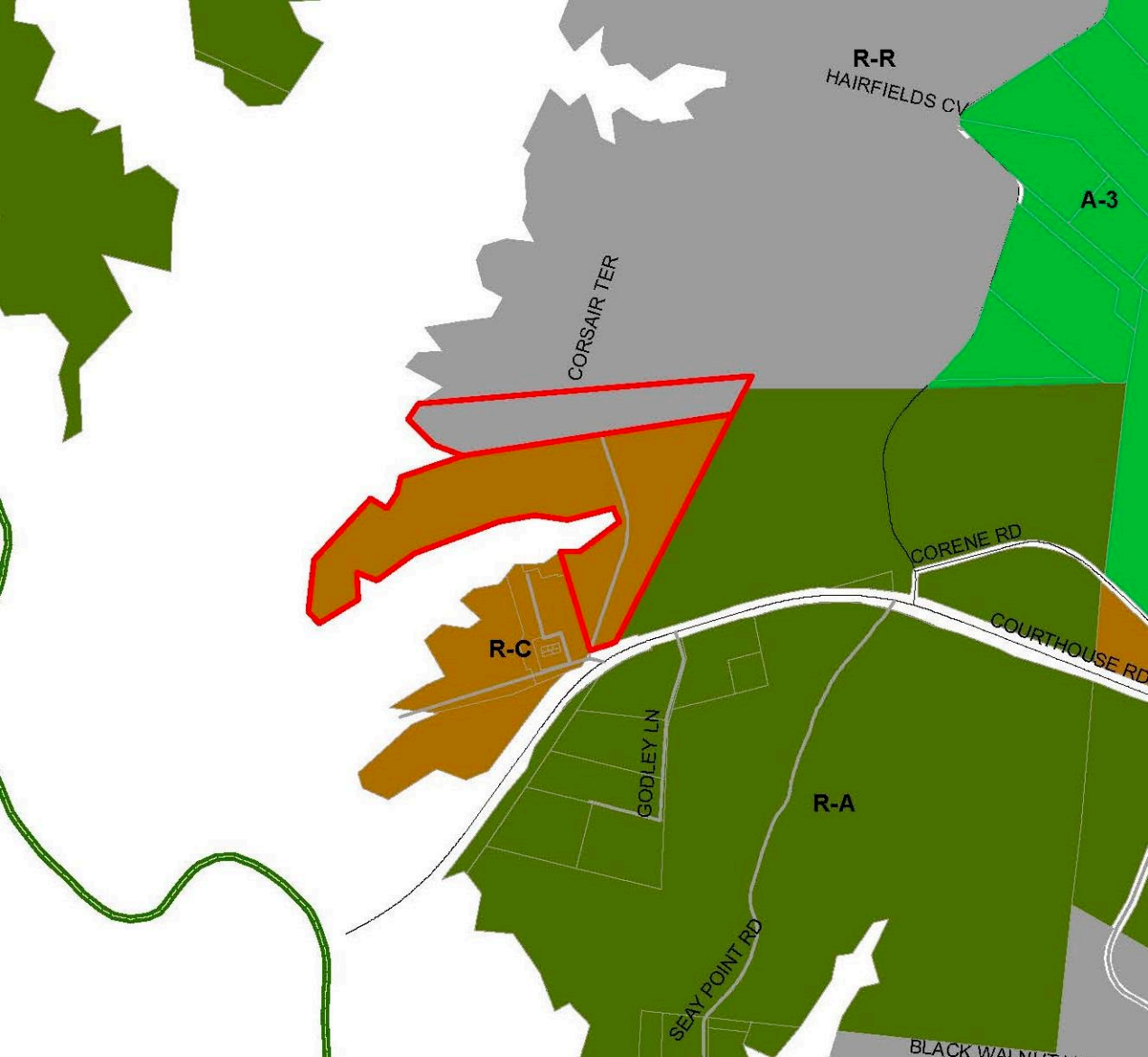


Attention

Job ID: 42363477

Requested Fulfillment Date: 1/17/2015

| Product Information | Actual Fulfillment Date | Quantity | Subtotal | Status |
|---|------------------------------|----------|-----------------|--------|
| Certified Mail - Letter in a #10 Envelope - 6 sheet max. Product SKU: DA41 Document Name: Corsair Letter and Map List Name: molMergedList <i>Paper Type And Color: White 24# Full Color</i> <i>Number Of Pages: 2</i> <i>Double Sided: No</i> <i>Copy Sent To Sender: Yes</i> Production Cost For 48 Pieces: \$103.68 Certified Mail Automated Letter W/ Electronic Rtn Rcpt. Postage For 46 Pieces: \$236.44 Certified Mail Unsorted Letter W/ Electronic Rtn Rcpt. Postage For 2 Pieces: \$10.28 | 1/17/2015 Mailed via USPS | 48 | \$350.40 | |
| Order Sub Total: | | | \$350.40 | |
| Invoice Subtotal: | | | \$350.40 | |
| Total Invoice: | | | \$350.40 | |



R-R
HAIRFIELDS CV

A-3

CORSAIR TER

R-C

CORENE RD

COURTHOUSE RD

GODLEY LN

R-A

SEAY POINT RD

BLACK WALNUT ST