AGENDA

Board of Zoning Appeals
July 6, 2015
7:30 P.M.
General District Courtroom
84 Courthouse Square, Lovingston, Virginia

I. Call to Order

II. Approval of Minutes from May 4th and June 1st Meetings

III. Variance Request #2015-01 / Ms. Melissa Cash Tenorio

IV. Zoning Appeal #2015-03 / Mr. Justin Shimp, Mr. Ray & Mrs. Nellie Koon, and Ms. Vanessa Schroeder

V. Other Business

VI. Adjournment

Next Meeting: August 3, 2015 (as necessary)

Draft: 5/15/2015
Updated: 6/3/2015

NELSON COUNTY BOARD OF ZONING APPEALS
May 4, 2015
MEETING MINUTES

Present: **Gifford Childs, Kim Cash, Goffrey Miles, Mary Kathryn Allen, and Ron Moyer**

Absent: **John Bradshaw**

Staff: **Tim Padalino, Director, Planning & Zoning, and Stormy Hopkins, Secretary**

Call to Order: Mr. Childs called the meeting to order at 7:35 P. M. in the General District Courtroom, County Courthouse, Lovingston. There were five members present to establish a quorum.

Approval of Minutes: Mr. Childs asked for any corrections or comments on the minutes. Ms. Cash stated that she does not know if they are correct or not; receiving July 2014 minutes in May 2015, she does not know if the minutes correctly reflect what was said. She realizes that the Board has not had a meeting since July 2014, but would like to have received the minutes well before now. She said that she would have to defer to the tape.

Mr. Childs noted that there was a difference in setbacks on page two (2) of the minutes. The first paragraph indicates a fifty (50') setback and the fourth paragraph indicates a seventy-five (75') setback. Mr. Padalino noted that there are two separate criteria for the required setbacks; one is measured from the centerline and the other is from the edge of the right-of-way. Mr. Childs asked that it be checked and clarified.

> **Mr. Moyer made a motion that the Board approve the minutes for July 7, 2014 with the noted correction. Mr. Miles provided the second; the vote 3-2 in favor with Ms. Cash and Ms. Allen abstaining.**

Mr. Childs welcomed everyone to the Board of Zoning Appeals (BZA) meeting, and noted that there were extra agendas available in the back of the room. He provided an overview of the meeting procedures for the public.

1. **Zoning Interpretation Appeal #2015-01 (Shimp / Major Site Plan #2014-004 "Zenith Quest – Afton Mountain"**

Mr. Padalino stated that County staff recently received a petition to the Nelson County Board of Zoning Appeals, regarding an administrative approval he granted in his role as Zoning Administrator. He further stated that Appeal #2015-01 was submitted on April 2nd by Mr. Justin Shimp of 148 Tanbark Drive. The appeal is related to Major Site Plan #2014-005 ("Zenith Quest – Afton Mountain"), which received conditional approval from the Nelson County Planning Commission (PC) on January 28th. More specifically, the appeal is focused on the Zoning Administrator's administrative action to accept and approve the final revised landscape plan, which was an action that was taken on March 4th in connection with one (1) of the PC's four (4) conditions of approval. That condition is as follows:

> *"Additional plantings to soften the overall impact must be provided. Final approval will rest with the Director of Planning & Zoning with advice from the Chairman of the Planning Commission. This should also include particular attention to heavy screening of the dumpster in the front of the warehouse."*

Mr. Padalino noted that the petitioner has written that, *"As a neighbor of this proposed development, and a citizen of the County, I am aggrieved by this decision,"* and that the appeal, *"provides the facts which demonstrate that the landscape plan, as proposed and as approved by the Zoning Administrator, meets neither the conditions as imposed by the Planning Commission nor the Zoning Ordinance."*

Mr. Padalino then showed zoning maps for the subject property. The property is located in Afton in the North District; and is identified as Tax Map Parcel #4-A-44A, being a ten (10) acre parcel zoned Industrial (M-2). The parcel is located along a designated Virginia Scenic Byway.

Mr. Padalino then provided a chronological summary of the site plan application, review, revisions and resubmittals, and approval regarding the landscaping plan portion of the approved Major Site Plan for the Zenith Quest International facility.

Mr. Padalino stated that the County began communicating with Zenith Quest International at an August 13, 2014 Site Plan Review Committee meeting. He noted they came as pre-applicants before they officially submitted an application, or other materials, in order to discuss the details of the proposed project. Attendants included Mr. Peter Kaya and Mr. Ray Miles of Zenith Quest, and Ms. Ammy George, landscape architect with Roudabush, Gale and Associates, the consulting firm that prepared the Site Plan.

Mr. Padalino explained that during this preliminary discussion, there were several site-specific issues that were brought up and discussed in detail, and which would need to be carefully considered and addressed by the applicant team. Mr. Padalino described those issues as follows:

1. The unusual zoning map patterns – the subject property is zoned Industrial (~~M-1~~) (M-2) and adjoins both Residential (R-1) and Agricultural (A-1) Districts. That issue gave rise to questions and concerns about project compatibility with existing land uses in the immediate area. There was specific discussion about how the project will address potential impacts on any changes to the character of the neighborhood and to the quality of life for nearby residents.

2. The project's location on a designated Virginia Scenic Byway and at a gateway entrance into the Rockfish Valley, which is the center of Nelson County's highly successful tourism industry. That issue gave rise to questions and discussions about the visual impacts to the scenic corridor and the tourism corridor. There were questions and concerns about traffic patterns, volumes, and road safety. And, there was specific discussion about how the project would address potential impacts related to safety and appearance.

Mr. Padalino further explained ~~stated~~ that from the earliest engagement with the pre-applicant team, staff emphasized to Zenith Quest the specific importance of developing a robust, high-quality landscape plan to minimize potential impacts of the issues described above.

Mr. Padalino stated that on August 28, 2014, he conducted a site visit with members of the PC, and with members of the applicant team, which led them to submit a Major Site Plan, and was reviewed by the PC on October 22nd. He highlighted a few elements from the staff report for that PC meeting, including specific review comments regarding the need to revise the landscape plan as it was originally submitted as follows:

1. Additional screening is needed along Route 151;
2. Screening is required adjacent to parking lot and loading area(s); and
3. Other general screening considerations, relative to the Ordinance sections.

Mr. Padalino noted after that meeting, the applicants began revising the Site Plan, and resubmitted a revised Site Plan on December 29, 2014. The revised plan went back before the Site Plan Review Committee. In connection with that second review, Mr. Padalino stated that he provided the applicant team with updated review comments on January 14, 2015. He indicated that the total review comments consisted of eight (8) pages, but the BZA was only given three (3) pages that pertain specifically to the landscape plan elements. Part of those review comments included revision comments from the applicant team (noted in bold black ink), addressing how the revisions incorporate their review comments. Mr. Padalino also noted that it included his updated comments (in bold blue ink). Mr. Padalino noted a few of the highlights from the applicant's revision comments:

1. The applicant's revision comments note that, on the revised landscape plan, a mix of predominately evergreen and deciduous shrubs were proposed along the fence line facing Route 151; and that 75% of the total length of the road frontage has been landscaped. Mr. Padalino noted this exceeded the minimum 50% requirement. He also noted that in response to that, he acknowledged that the additional landscaping materials are a significant positive improvement, and that the proposed revised landscape plan contains much more plant material, and is comprised of a very interesting and attractive plant palette. However, Mr. Padalino noted that the majority of the proposed canopy trees along Route 151 are deciduous, and will not provide effective screening for a large portion of the year. The review comments state that the applicants should revise that portion of the landscape plan to include additional evergreen trees, staggered behind the proposed deciduous trees and shrubs. Such revisions would provide greater depth of vegetation materials, with year-round foliage, and thereby provide effective screening.

2. The applicant's revision comments note that, on the revised landscape plan, the average full-grown height of the shrubs along the Route 151 is approximately 8-10', which will provide adequate screening for the parking and loading areas. The trees and shrubs have been located to maximize the screening of the loading and parking area. A portion of the site is located approximately eight 8-10' above Route 151, and for those areas, additional screening with landscaping was not needed. Mr. Padalino noted that his response comments state that the additional landscaping materials are a significant positive improvement; however, there are no landscaping materials to provide screening adjacent to the loading area or the parking area, and that the applicants should revise the plan to include landscaping in those areas.

3. Additional comments were provided to the applicants: the proposed project includes a very long façade to the warehouse, in excess of 375' in length, that must have some landscaping to provide better screening from Route 151 and from adjacent properties, and to reduce the visual impacts of the very large and long industrial building. A suggestion was made that such landscaping could be established in relatively thin landscaping areas or planting beds along the building, located along the façade in between the loading docks where they would not interfere with the loading operations.

Mr. Padalino noted that all of these review comments were provided in writing as well as in a graphic format; and he showed a slide to depict the graphic format view.

Mr. Padalino noted that on January 28, 2015, the PC conducted a review of the revised landscape plan, the comments provided by Ms. Ammy George and himself, as well as the review comments sketch. He noted that the applicant team also presented a draft version of a newly revised landscape plan sketch, with proposed landscaping additions. Mr. Padalino noted that, at that meeting, the applicant team explained that some of the County's review comments could not be accommodated, due to the following: engineering limitations of compacted soil caused by delivery trucks within the loading area; and security concerns, related to trees or shrubs potentially being used as hiding areas near the warehouse and loading docks.

After concluding their review of the revised Site Plan; including the draft landscape plan sketch, the PC voted to provide Major Site Plan #2014-005 with conditional approval, citing four (4) pending issues that needed to be properly resolved prior to full and final County approval of the site plan. Mr. Padalino noted that the second condition, pertaining to the landscape plan, had been previously read at tonight's meeting.

Mr. Padalino noted that, following that conditional approval, the applicant team worked to incorporate some but not all of the County's review comments into a final revised landscaping plan which was submitted on February 12, 2015. They introduced six (6) Red Maples near the employee parking and loading areas; sixteen (16) White Pines and nine (9) Virginia Pines along the frontage of Route 151; and the addition of some low growing shrubs

and ornamental grasses in between the loading area and the frontage of the property. Mr. Padalino then highlighted how the applicants explained that the plant materials near the loading area were selected with security concerns in mind. Specifically, low-growing thorny shrubs were proposed so that those areas could not be used for hiding. They used a plant palette of "dwarf" varieties, which included the Pyracantha (max height of 3' to 4') and Barberry (max height of 2' to 3') shrubs, and the Prairie Munchkin Dwarf Little Blustem (max height of 2') grasses. Mr. Padalino further noted that the applicant team did not include any landscaping islands for trees or other vegetation along the façade of the warehouse, due to the previously stated concerns (soil compaction and security concerns).

On March 4, 2015, Mr. Padalino stated that in his capacity as Zoning Administrator, and in accordance with the PC's conditional approval, he accepted and approved the "final revised landscape plan". He notified the applicant team on March 4th. He noted that his action to accept and approve the final revised landscape plan was based on the extensive review and revision process, which included a total of three (3) iterations or two (2) substantial revisions; and the testimony of the applicant team, which included public statements about the inability to accommodate all the County's review comments, due to the design/engineering issues and security issues.

Mr. Padalino stated that he continued to work with the applicant team to address the remaining three (3) conditions. He noted that Major Site Plan #2014-005 eventually received final County approval on March 25th, at the PC meeting when they voted 5-1 to confirm that the final remaining condition of approval had been satisfied; and he provided his approval signature to the final revised site plans on March 26th.

Mr. Childs stated that he would like to address the issue brought forward by the County Attorney, Mr. Phillip Payne, to make everyone aware of it. He also noted that BZA members just received the correspondence today. Mr. Padalino apologized for that and noted staff received it Friday afternoon and, due to miscommunication, didn't recognize that it was supposed to be mailed out by Planning & Zoning staff. Ms. Cash asked if the applicant received this in the same format. Mr. Padalino stated that the petitioner did and that he received it in the mail today as well.

Mr. Childs noted that this was Mr. Payne's opinion, and is based ~~off of~~ on quite a bit of evidence from previous decisions. He also noted that the big issue for the BZA is what needs to be done: should they hear the case; should they dismiss it; and if they do hear the case and vote, what is the risk. Mr. Childs said he is unsure of the appropriate process. Mr. Padalino said the decision was up to the BZA to take action on how to respond to this legal concept of "standing." He also noted that Mr. Payne provided a legal precedent to claim that there is a fairly high legal or technical threshold to meet, in order to be considered an aggrieved person with legal standing.

Ms. Cash asked if this was published as a public hearing. Mr. Padalino said it was. Ms. Cash stated that in her opinion, the BZA needs to hear from the applicant; open the public hearing; and then the BZA can decide what action to take. Mr. Moyer stated with the approvals from the PC, Mr. Padalino and a letter from Phil Payne (County Attorney), that it will be his way of voting. Ms. Cash stated there were two (2) options offered by Mr. Payne: the applicant by-right could have the opportunity to respond to the information; and if it was advertised as a public hearing, the BZA is legally bound to hold a public hearing.

Mr. Childs stated that he BZA would hear the appeal. He asked that the applicant come forward.

Mr. Justin Shimp of 148 Tanbark Road, Afton: Mr. Shimp was sworn in by Mr. Childs before the Board and signed the oath. Mr. Shimp stated that he is very close to this proposed facility and is aggrieved. He stated that he received a memo from the County and feels the timing could have been better. He also noted that he does not think it is a complete opinion as to whether he has standing or not. He added, that if there is a question on the standing of this, and if the opinion of the Board is that he does not have standing, that there be a delay until next month ~~to allow~~ so it could be presented more thoroughly. He stated that given the late timing of the memo, he feels that would be fair.

Mr. Shimp talked about the nature of the appeal and why he has made the appeal. He stated that one thing that he's found in this process and dealing with the Planning Commission's approvals, is that there is not a whole lot of opportunity for public input. He noted that he was disappointed by that, and that he had to file a BZA appeal in order for his concerns to be heard. He also noted that he had been communicating with Mr. Padalino some during the course of this project; but, at the end of the day, there were statements made about what could and could not be done (based on the applicant's claim of inconvenience or a safety concern). He stated that those may be concerns for the folks carrying out the project, but that is not an excuse to ignore the rules. The burden, when it comes to following the Ordinance, is on those proposing the facility.

Mr. Shimp stated that he lives about 5,000 feet or less from this facility, and drives past the site every day. He stated that he's more or less a life-long Nelson person and tends to stay in Nelson. He stated when things like this come up, it affects your neighbor and property values. He indicated that he's made some big investments in his property and will continue to do so by building a new house. He stated that the landscaping ordinances are created to protect neighbors and businesses around a property, and that they need to be followed.

Mr. Shimp noted the following specifics of his appeal: shrubs are very short; they do not hide large trucks; they should be evergreens; there is an area that is facing an Agricultural property that does not have any landscaping; and a big structure along a Scenic Byway (that the County should protect) has a negative visual impact.

Mr. Shimp noted that he is a Civil Engineering in Charlottesville ~~that~~ and designs lots of warehouse ~~type~~ buildings and knows that trees can be planted in loading areas, but it does take some consideration. He indicated that landscape islands could be done.

Mr. Childs swore in Mr. Daniel Rutherford, attorney for Mr. Shimp: Mr. Rutherford stated that he was there for the standing issues. He said, "*a big study of the authority suggests that, to follow the proper analysis of applying whether a party has standing as an aggrieved party, with respect to appearing before the Board of Zoning Appeals: the first determination has to be ascertained if the petitioner is directly involved or is an adjoining property owner; but that is not the end all. If the petitioner is not directly involved in the controversy and is not an adjoining owner, then the inquiry is whether the landowner may potentially be within the third class of an aggrieved persons. And, the resolution of the landowners' aggrieved status is a two-fold inquiry. The first step is to determine whether the landowner owns property within close proximity to the zoning district of where the challenged use. To determine if the landowner is in close proximity is, a whole bunch of cases, a whole bunch of tests, and a lot of what you have is kind of limited and not detailed. You don't need to be an adjoining landowner to be an aggrieved person; you can show I have indirect harm. Indirect harm can be any value on property (appraisals or things like that). So, to say that he is not a landowner or that here is the very vague, broad, determination of an aggrieved person wasn't the whole analysis that needs to be before the Board of Zoning Appeals. So, to let you know, there are three (3) classes of aggrieved persons, and I believe my client, Mr. Justin Shimp, is in that third class. He is in close proximity and still being damaged, unlike individuals in my district Faber, Gladstone, and other places, who would be general public aggrieved. My client is in close proximity to less than 5,000 feet away from this 80,000 SF building. Other Circuit Courts within this Commonwealth has agreed to such, and is what I have before me; is what other Circuit Courts have ruled as well.*"

Mr. Childs asked if there were any questions for Mr. Rutherford. No questions were asked. Mr. Childs opened the public hearing at 8:09 p.m.

Mr. Ray Miles, Project Manager for Zenith Quest International: Mr. Miles stated that from the beginning, now, and continually, they are eager to work with the County to make sure their landscaping plan is in line with the code and expectations. They went through several revisions and thought they had arrived at a very good landscaping plan. It was their understanding that the Site Plan was approved and still is. He noted that if the County concludes that other features must be added in order to meet code; they are willing to do that. He indicated that he has comments from his attorney, Valerie Long with Williams-Mullen that he would like to submit. He stated that Ms. Long's conclusion was very similar to the County's Attorney's in that there is no standing.

Mr. Miles stated that Ms. Ammy George, engineer with Roudabush, Gale & Associates, was there to explain the screening issue. He stated that it was his understanding as a layman (he worked in landscaping for five years) not only passerby~~'s~~ along the road, but neighbors across the street, (at relatively the same height and level as the property) will have virtually complete screening from the warehouse when all the landscaping along the road has grown the way it should. The extra landscaping added along the perimeter of the turnaround and the loading area (short shrubs and trees) were added in addition to that screening to break up the loading and parking area. He noted that it was their understanding that the revised landscaping around the loading area, parking area, Scenic Byway and neighbors was very adequate. As for the landscaping along the facade of the building; it is his understanding that trees planted there won't get the sun or water that is needed for adequate growth. The root structure won't take for them to grow tall enough to provide much screening. Those are the reasons that focus was placed on screening along the road as well as extra screening alongside the turnaround areas.

Mr. Miles further noted that they are in the import/export business, which imports ammunition. They are beginning to import firearms, and they might do light manufacturing on firearms in the facility. He noted that their security officers got together and decided that for security reasons, they didn't want anything alongside the building that could be a security hazard for the loading and unloading of delivery vehicles, and for staff going to and from the parking lot.

Ammy George, Rodabush, Gail & Associates: Ms. George stated that she was the landscape architect for this project. She noted that security was always first in mind during the process. She stated that they didn't want anyone to have access to the loading doors; they wanted a clear view of parking and loading areas.

Regarding the compaction of the soil in the loading area, she noted that there is a gravel parking lot, it is not asphalt. She noted that, as Mr. Justin Shimp stated, landscaping could be done up close to the building, but one thing with a gravel parking lot is that tree roots will follow the water, and eventually the surface or tree roots will be compromised. In order to have a healthy tree, you need to have healthy roots. Usually the tree roots are the same area as the canopy extends out; so that could be a large area that is either pushed up to create damage to the loading area surface, or impeded the root system of the tree, which would need to be replaced within ten (10) to fifteen (15) years. An unhealthy tree would create more of an eye sore than an open wall space. Those are the reasons they chose not to put landscaping in the loading areas. They also felt that the buffer along Route 151, with evergreen shrubs/trees that are behind it, along with the deciduous trees, would provide adequate screening. The eye is naturally drawn up sixty degrees, which would catch the top of the trees, if not the middle of the canopy.

Mr. Childs asked Ms. George to address Mr. Shimp's comment regarding the adjacent property. Ms. George stated that from Mount Armour, they did try to save as many trees along the property line and within the setback as possible. One of the things that was discussed with the PC (on public record) was that anytime that trees on adjacent property fell below ten (10) feet in width, landscaping would be added; and they did, along the Stormwater Management pond. Mr. Childs asked if there were more trees in that direction and Ms. George stated that there is an existing tree line that follows the property line.

Sharron Harris: Ms. Harris stated that she lives on Family Lane and asked about the road at the back of the warehouse on Family Lane. Mr. Padalino stated that is where the project team has designed a secondary emergency access. He stated that it would be a gravel road, with a gate, in case an emergency access vehicle needs to access this end of the building to fight fire. Ms. Harris asked if the landowners/homeowners needed to give them permission. Mr. Padalino stated that was a topic that was discussed during the whole Site Plan Review Committee process, and which is a primary focus of Mr. Shimp's second appeal. That appeal will be heard by the BZA on Monday, June 1st. Mr. Childs wanted to clarify that Family Lane was not part of the issue tonight since it is not a part of the landscape plan. Mr. Padalino stated that was correct and said it was Appeal #2015-02.

No further comments were made and the public hearing was closed at 8:20 p.m.

Ms. Cash stated that the first order of business is to determine if Mr. Shimp has standing. If he does, the BZA moves forward and discusses the issue of landscaping; if he does not, it goes no further. Mr. Moyer stated that he feels the BZA needs to rely a lot of Mr. Payne's recommendation.

Mr. Childs asked about the point made of asking for a delay. Mr. Moyer stated that he does not feel that it should be delayed. Mr. Childs agreed and stated that he feels it would be unfair to the original applicant. Ms. Cash stated that a similar issue had been dealt with before regarding standing and referenced the coffee roastery at the Rockfish Valley Community Center; where a nearby property owner contested the decision. It was the Board's determination that the property owner did not have standing to do so. Ms. Cash stated that she is very comfortable in agreeing with Mr. Payne's determination and does not believe Mr. Shimp has standing to file this appeal. Mr. Moyer and Mr. Miles agreed with Ms. Cash.

Ms. Cash made the following motion:

> **I move that the Board of Zoning Appeals, relative to Appeal #2015-01, finds that Mr. Justin Shimp has no standing to file an appeal of the Zoning Administrator's approval of the landscape plan for Major Site Plan 2014-005 for Zenith Quest-Afton Mountain as:**
>
> > **-the petitioner, Mr. Shimp's appeal seeks to redress some anticipated injury that is not based in current fact and,**
> >
> > **-the petitioner has no direct interest in the matter hence is not "aggrieved" as defined by the VA Supreme Court, by the Zoning Administrator's approval of the landscape plan.**
>
> **Therefore, Mr. Shimp does not have standing to appeal the Zoning Administrator's determination.**
>
> **Ms. Allen provided the second; the vote 5-0.**

Other Business:

Curro Case: Ms. Cash asked for an update on the case. Mr. Padalino stated that he has spoken with Mr. Payne and the last update was that the Circuit Court judge upheld the BZA's ruling, and that the parking platform structure had to be removed within a certain time frame – but that time has passed. There has been no further action because it has been tied up in proceedings between the two ~~party's~~ parties' attorneys and the Courts. He stated that as of this past Friday, Mr. Payne has set a hearing ~~for seeking~~ to seek a court-ordered injunction to have the structure removed, pursuant to the BZA's original determination and the Circuit Court's ruling to uphold that determination. Ms. Cash asked ~~to~~ Mr. Padalino to get another update, if there is one, before the next meeting.

Chad Artz Case: Ms. Cash asked Mr. Padalino if the Board of Zoning Appeals is completely done with Mr. Artz. Mr. Padalino said yes, that Mr. Artz was determined to be in full compliance with applicable Ordinances, BZA findings, and court rulings.

Meeting Procedures: Mr. Childs noted that Ms. Cash raised a good point, regarding only the applicant taking the oath. Mr. Childs said that ~~was~~ those were his thoughts as well, but at the last meeting, everyone took the oath. Ms. Cash stated that is what happened. It is her understanding that anyone giving testimony that could be used in court, such as the applicant, petitioner or their representatives, would be sworn in; but members of the public, who are speaking during the public hearing, are simply giving opinions, it is not testimony and is not something that would be called into court. Mr. Moyer stated that ~~is~~ if someone was called into Circuit Court, they would have to be under oath anyway, so it doesn't make a difference.

Ms. Cash asked if the BZA is going to develop an outline for motions. Mr. Childs said he thinks so. They asked Mr. Padalino if he would provide a draft of what specific information a motion should contain. Mr. Padalino said he would.

Mr. Childs asked if minutes could be provided by email earlier. Mr. Padalino confirmed that once the minutes are drafted, Planning & Zoning staff would send them by email as quickly as possible.

Ms. Allen asked if Mr. Payne issues something regarding the next meeting, could it be provided a week or two in advance. It will give everyone more time to read through it, and ask questions if there are any. Mr. Padalino said the BZA could request Mr. Payne be in attendance at the meeting, if he's available.

Ms. Cash said the PC has dealt with an issue regarding legal access before with Shannon Farms, and asked if they could get copies of the minutes from that meeting.

Adjournment:

Mr. Childs adjourned the meeting at 8:37 P.M.

Respectfully submitted,

Stormy V. Hopkins
Secretary

DRAFT

NELSON COUNTY BOARD OF ZONING APPEALS
June 1, 2015
MEETING MINUTES

Present: **Gifford Childs, Kim Cash, Goffrey Miles, and Ron Moyer**

Absent: **Mary Kathryn Allen and John Bradshaw**

Staff: **Tim Padalino, Director, Planning & Zoning, and Stormy Hopkins, Secretary**

Call to Order: Mr. Childs called the meeting to order at 7:40 P. M. in the General District Courtroom, County Courthouse, Lovingston. There were five members present to establish a quorum.

Approval of Minutes: Mr. Childs asked for any corrections or comments on the minutes. It was discussed and determined that corrections would be emailed to Staff, and a revised copy would be sent to the Board. The approval of minutes were postponed until the next meeting.

Mr. Childs provided an overview of the meeting procedures for the public.

1. **Zoning Appeal #2015-02 (Shimp / Major Site Plan #2014-004 "Zenith Quest – Afton Mountain"**

Mr. Padalino stated that the appeal is made by Mr. Justin Shimp, a resident of Tanbark Drive in Afton. The appeal is in connection with Major Site Plan #2014-005 ("Zenith Quest – Afton Mountain"), which was approval by the Planning Commission in March. He noted that the subject property is located on Critzer Shop Road in Afton (North District). It is a 10-acre parcel, zoned Industrial (M-2) and is further identified as Tax Map Parcel #4-A-44A.

Mr. Padalino provided a slide showing a portion of the Site Plan depicting the proposed new commercial entrance that would lead to a loading area, and an 80,000 SF warehouse, which would also be used for the assembly of light manufacturing of weapons, and storage of tiles and non-toxic cleaners. Importantly (for this appeal), he drew attention to the Family Lane, which leads to a secondary emergency access that is a twenty (20) foot gravel road, which provides adequate fire and other emergency response access to the back portions of the warehouse.

Mr. Padalino provided a narrative summary of the overall County's Site Plan Review process, with specific focus on the issue of providing secondary emergency access and the use of Family Lane for that access, as follows:

- Initial Site Plan Review Committee (met on 10/10/2014):
  - No pertinent comments regarding secondary emergency access and/or Family Lane were provided from any of the following Committee members:
    - Nelson County Zoning Administrator
    - Nelson County Building Official
    - VDOT

- Initial Planning Commission review (10/22/2014):
  - In discussion of site plan details, applicant consultant Ms. Ammy George of Roudabush Gale & Associates stated (from Meeting Minutes): "…a small 'break' in the forested buffer would result from the gravel fire access road and locked gate which would be installed between Family Lane and the warehouse."
  - In response to that comment: the Planning Commission did not respond with any questions or follow up comments.

DRAFT

- After the October Planning Commission meeting, the applicant revised the Site Plan before returning to the Planning Commission. During that time of revision, Mr. Padalino provided updated comments in regards to the revised plans:
    - "the following issues or questions also remain, and should be addressed at the January 28th Planning Commission meeting:"
        - *"Compliance with fire access and emergency access requirements:"*
        - "request to provide documentation that ZQI has legal right to access / use Family Lane (private road) for satisfying secondary emergency access requirements"
        - "request to provide documentation of compliance with Fire Code requirements and Building Code requirements regarding the design and layout of the 20' gravel fire access road"

- At the 1/28/2015, the Planning Commission reviewed those revised plans (from Meeting Minutes):
    - Zoning Administrator provided the following updated review comments from members of the Site Plan Review Committee:
        - "Mr. David Thompson, Building Code Official, confirmed that the layout of the proposed fire access road is sufficient and it does meet code requirements. It would be a twenty (20) foot wide (gated) gravel road, accessing the rear of the property. Mr. Thompson also confirmed that the secondary emergency access provides acceptable access to all areas of the warehouse, with respect to maximum distances allowed between the end of the emergency access road and the farthest extent of the building footprint."
        - "Mr. Kenneth L. Kent, Assistant Fire Marshall in the Western Region of the State Fire Marshall's Office, clarified that they do not get involved in plan review; they only do walk-throughs after a building is permitted and constructed; and only engage in any necessary enforcement activities after buildings are planned, permitted, constructed and operated."
    - The Planning Commission's response and inquiry regarding the secondary emergency access road and/or Family Lane was as follows (from Meeting Minutes):
        - "Commissioner Russell asked about the private road issue and if there was more information. Ms. George stated that they have been talking with some of the Fire Chiefs in the area to discuss whether they needed legal access to enter the rear of the building property. Mr. Miles noted that back in September, the Building Official, David Thompson, deferred to the Fire Chief. He also noted that he met with Tommy Harvey and Don Fitzgerald, former Fire Chief at Wintergreen; and they came up with the option to have a back gate with a driveway. He stated that during conversation, it was asked several times if an easement was needed for Family Lane due to it being a private property. He noted that Mr. Harvey and Mr. Fitzgerald stated that from their experience, fire or emergency services do not need an easement to go anywhere during an emergency. At that point, he did not pursue an easement."
        - "[Commissioner Russell] stated that she is still concerned with the fire issue and unseen hazards, and is personally uncomfortable with approving this without some assurance that the County is not going to be held liable for lack of preparation, should there be some sort of issue."
        - "Commissioner Russell made a motion in relation to the Major Site Plan application #2014-005 … [that] this project is approved with the following conditions:
            - [#3 of 4]: "A written clarification should be provided of the availability of Family Lane as a legal access for Nelson County fire department."

Mr. Padalino noted that two (2) of those conditions were delegated to him (Zoning Administrator). The fourth (4th) condition was appropriately left up to State agencies that have review over this project (DEQ, VDOT, etc.). The Planning Commission chose to retain the responsibility to review and approve the third (3rd) issue: Family Lane.

- Applicant response to Planning Commission conditional approval (February 2015):
  - Applicants caused the requested information to be obtained/submitted to the County, including the following:
    - E-mail communication from Mr. Tommy Harvey, Chief, Rockfish Valley Fire Department (dated March 20th)
    - E-mail communication from Mr. David Graves, Assistant Chief, Rockfish Valley Volunteer Fire Department (dated March 23rd)

- In response to this evidence (3/25/2015):
  - Planning Commission evaluated these emails and voted 5-1 to determine that condition #3 had been satisfied. With that being the remaining condition to be satisfied (3 out of 4), the Planning Commission provided approval of the Site Plan. Mr. Padalino noted that he signed the Site Plans the next morning.

Mr. Padalino provided the following summary: he has highlighted the issues; performed due diligence with the appropriate local and state review agencies; and acted as a conduit between applicants to report their information to the Planning Commission. The Planning Commission evaluated all the information and took action based on their own determination.

Mr. Childs asked Mr. Padalino if condition #3 was up to the Building Code Official and not his decision. Mr. Padalino noted that the review and approval of condition #3 was an act of the Planning Commission. He noted that he consulted with the Building Official prior to conditional approval (January) and was assured that it was fine. He also did due diligence with the Fire Marshall out of Roanoke, and Jaime Miller (Emergency Services Coordinator) because it seemed during the initial review, the access road was a main issue. He reported all of his information to the Planning Commission.

Phillip Payne, County Attorney: Mr. Payne stated the he represents the County, and accordingly is representing the Planning Commissions' decision. Mr. Payne stated that, *"he should start acknowledging that for any person not very familiar with the processes of land use and the legal system that it's not intuitive; it's very complicated. As a matter of fact, I have to re-read these things on a regular basis. Having said that, there are certain legal hurdles before an appellant can come before you. Or as you pointed out in your introduction a quasi-judicial body and you effectively act as judges in this initial step of the appeal. You had earlier, in an appeal by Mr. Justin Shimp, as I understand, did not have standing. The jurisdiction issue is similar to standing; except that with jurisdiction the court simply cannot act unless it has jurisdiction. In this instance, there are two things that work. First of all, the Planning Commission decisions can only be appealed to Circuit Court. Rather strangely, the procedure that's in the State Code provides that appeals be treated for Site Plans the same way that they are treated for subdivisions. So the section that talks about appeals for subdivider's going to the Circuit Court is also to be read as dealing with Planning Commission approval or disapproval of site plans. So the first hurdle is the State Code only allows for the subdivider or the applicant with the site plan to appeal to Circuit Court. That means, someone who is complaining about the site plan or the subdivision (that is not the subdivider or the applicant) doesn't have a statutory right to appeal. In this instance, Mr. Shimp has argued that the Planning Commission erred because it relied on improper/incorrect information from the Planning Director. As the report from the Planning Director indicates (in this instance) he was a conduit/a pass through, he gathered information and made a report. An appeal to the BZA from the decision of the Planning Director or any other Zoning Administrator requires an order, requirement, decision or determination. Now quite typically, for example, a Planning Director writes a letter to a landowner, telling the landowner he is in violation of the Zoning Ordinance because he has fifty junk cars and that's not permitted in R-1 and that landowner disagrees. He has made a determination, and he might have issued an order that says you have thirty days to remove this. That's the sort of thing that comes to the BZA. Where there is no such clear cut ordered determination/decision then there is no appeal right to the BZA."*

Mr. Payne referenced the case James vs. City of Falls Church. He stated that, *"it is fairly interesting in that several things were going on in that case. The Church that was appealing was relying on an interpretation that*

the Zoning Director had made. There is a great deal of informal back and forth with the Zoning Director and people who want to use their land, subdivide their land, change the use of their land (a constant back and forth). Those things aren't appealed. That's what happened in this case; the Planning Director said it's my interpretation of the ordinance that you can consolidate these seven lots. So, when they went before the Planning Commission which has the jurisdiction, their argument was, the Zoning Director said we could do this. In the County, no one appealed the Zoning Director, because after sixty (60) days, his decision becomes final for a vested right of the land owner. Therefore, the argument went that the Planning Commission has to listen to him because sixty (60) days has gone by. The Supreme Court said two things. Number one, his letter of interpretation was not a decision, was not a determination, it wasn't an order; consequently it did not have to be appealed to the BZA because it could not be appealed to the BZA. The second thing the Court said was, the Planning Commission applies the law all the time. They've got their own power; they have to figure out what ordinances mean and make their own decisions. So in short, the Planning Commission is not the Zoning Officer, the Planning Commission is not a Zoning Administrator, or Planning Director. Therefore, the appeal of the Planning Commission applies to the Circuit Court. In this instance, where there was no decision or determination made by the Planning Director, their appeal to the BZA is simply without jurisdiction. As to standing, I don't belabor that, perhaps the news coverage gives the impression because the way the federal system works that just about anybody can go to court and sue for environmental type claims. Federal standing issues are different because of state or federal laws or because of federal decisions. The Virginia Supreme Court has kept and made a very narrow window for standing. It is relying on the word aggrieved, which is in the Zoning statute; the appeal right to the BZA statute. One of the critical terms or phrases that the court uses is the word aggrieved. A statute contemplates a substantial grievance means, a denial of some personal or property right, legal or equitable, or imposition of a burden or obligation upon the petitioner, different from that suffered by the public generally."

Mr. Payne referenced the case, Friends of the Rappahannock. He stated that, *"there, a group of citizens gathered together and formed a committee (essentially) to oppose this gravel pit in the Rappahannock. They obviously had a genuine, heartfelt, and perhaps reasonable concern about that gravel pit in the Rappahannock River and their county; but they didn't have an injury to their specific property. That's the courts (sort of) measuring point is what's this going to do to your piece of land. So from the standing point, I don't think anything could have changed from the last hearing. The last point, I know that you received a letter from some additional landowners, who are in agreement with Mr. Shimp's concerns. The problem is, they did not join the fight within the thirty (30) day timeframe so they're not parties to this proceeding; they certainly can make their feelings known. In order to be properly before the BZA, the petition has to be filed within thirty (30) days of the decision. So, on top of the fact that they didn't come within the thirty (30) days, they are also facing the jurisdiction issue."*

Mr. Payne stated that he was happy to answer any questions the BZA may have. Mr. Childs thanked Mr. Payne for his assistance with this matter.

Mr. Childs asked that the applicant come forward and present.

Mr. Justin Shimp: Mr. Shimp was sworn in by Mr. Childs before the Board and signed the oath. Mr. Shimp stated that he is a resident of Tanbark Drive, in the neighborhood of this proposed development. He noted that he has a difference of opinion than what was given by Mr. Payne. He stated that, *"in relating to the folks who are joining the appeal; until public notice is sent out and things like this, how do folks have an opportunity to know what's going on."* He indicated that there needs to be some consideration given to those joining the appeal.

Mr. Shimp stated that in relation to his standing, this particular site (proposed use) is within 400 feet of a school that his kids are at, with his wife, every week. He stated that the purpose of zoning is orderly development, and protection of citizens and property. He would hope that there would be some consideration that the safety of his family and of those that live next door, could be considered as a grievance.

Mr. Shimp noted that he has a different view in regards to the jurisdiction of this matter. He indicated that the Zoning Administrator made a decision to present some correspondences from the volunteer fire department as evidence as legal fire access. He noted that they are not entitled to make that call; that it is up to the Building

Official (deals with the building code for fire access). He stated that, *"that written correspondence, saying that for the purpose of a Site Plan approval, we can account this private road, belonging to somebody else, as our land to use for the benefit of this property."* Mr. Shimp noted that should have been information that the Zoning Administrator took into consideration and not presented as evidence that was requested. He also noted that this information was presented the night of the meeting. He further noted from his standpoint, *"that action as one that I appealed, put a stay (if you will) until tonight, until you all hear this, and that would invalidate the Site Plan."* He noted that if the BZA agrees that the information was incorrect, the Planning Commission could rehear this with the information provided by the Building Official, stating that this meets a legal fire access from a code standpoint. He also noted that decision could be subject to a different set of appeals. He further noted that, *"from the Zoning Administrator's standpoint, I feel very strongly that it was a decision to present the information, it was relied upon, and that appeal that I filed puts a halt on that action from the minute he presented it to the Planning Commission."* Mr. Shimp believes there is room to view this as an appeal to the Zoning Administrator.

Mr. Shimp noted that he has been taken aback (in this case) by how the benefit of doubt in some of these decision has gone toward the developers. He feels the benefit of doubt needs to go to the neighbors. Mr. Shimp indicated that he has documentation that show that the three (3) petitioning neighbors have deeded access to Family Lane; the Zenith Quest property does not.

Mr. Shimp asked Staff to show a slide he provided showing a proposed alternate fire access (see attached). Mr. Shimp stated that, *"the practical implication is that by taking the right of Family Lane, the developer has created an additional 20,000-30,000 SF buildable area with this layout; without asking for permission; without asking for an easement; none of these things."* He noted that he finds that what's being done is unreasonable, and feels that he, along with those with deeded access on that road, have legal standing.

Mr. Childs opened the public hearing at 8:15 p.m.

Sharon Harris: Ms. Harris stated that she lives on Family Lane. She noted that, "*she did not know anything about this project until I think it was January or February, until Mr. Shimp came to her and asked if she knew a gun factory and they were going to use Family Lane as an access for emergency. I didn't know anything about that, until, I think it was in April, when I first got the letter about this meeting. I don't think it's fair, I think they should ask for our permission for the access."* She noted that she agrees with Mr. Shimp in regards to them building an access off of Route 151, rather than using Family Lane.

Mr. Harris: Mr. Harris stated that Sharon Harris is his sister. He noted that he doesn't understand what all is happening; it happened so quickly. He doesn't feel that it's necessary to destroy the land going to Family Lane. He stated that, *"he don't know who's doing it, but the construction (is like) in her driveway already without permission."* He noted that he is surprised that there aren't more adjoining neighbors here. He further noted that the area (Route 151) is congested enough. He feels that the access needs to be kept on Route 151. He stated that, *"as far as them modifying and upgrading the road, making it better than what it is; it's very inaccessible now."* He further stated that, *"they have uprooted the land all the way into the road that goes to Family Lane."*

Ernest Durrette: Mr. Durrette stated that he owns land on Family Lane. He stated that, *"I don't like to get in the way of progress but when progress is dangerous, I'd like to know about it."* Mr. Harris asked the Board, *"if any one of you was living on that road, would you approve this property to build a gun factory, that you don't know what's going to happen to that, it could blow up."* He noted that he did some research on the internet and found out more about the company. He noted that he knows jobs are needed in Nelson County but people's safety should be considered first. He further noted that this could be built somewhere else.

Ray Miles: Mr. Miles noted that he is a resident of Nelson County and the Project Coordinator for Zenith Quest for the warehouse and light manufacturing project. He noted that he agrees with the history provided by Mr. Padalino. He stated that, *"back in September, myself and our engineer from Roudabush, Gail & Associates, Ammy George, met with fire official, Tommy Harvey, and also former fire official at Wintergreen, Don Fitzgerald, and talked through all of these issues. We talked about the go around driveway behind the building; we talked about*

Family Lane; we talked about everything. They drew up an idea for us to put our plans together for firefighting emergency access. Those plans were reviewed by the Commission and approved." Mr. Miles noted that as a company, they plan to go forward based on the approval.

Mr. Miles also noted that their attorney, Valerie Long with Williams-Mullen in Charlottesville concurred with the County Attorney in this matter that there is no jurisdiction or standing and that the fire company or emergency access vehicles can go anywhere they need to, and no easement is required. He further noted that, *"as a company, they have always been willing to work on an easement, if required to. He continued to ask the question through the process – both of the Planning Commission and the fire officials – do I need to have an emergency access easement in place according to the code or requirements? The answer never came back yes, even to this afternoon when he asked the fire official, Tommy Harvey, do I need that."* Mr. Miles did note that they have hired a real estate attorney to look into who owns that right-of-way, which is commonly called Family Lane. If the owners can be located, they will work on getting an easement, at their own expense. In regards to current activity on the property (clearing of trees), affecting Family Lane, he wanted to clarify that to his knowledge, they have not gone beyond the boundaries of their property line.

Regarding the Building Official, Mr. Miles stated that, *"back in September, the reason they went to the fire official, is our engineer, Ammy at Roudabush went to the Building Official, David Thompson and asked, what fire access and firefighting setup do we need. He explained the code and then said (in emails) that he deferred to the fire official to meet with us about the specifics. And so my understanding is, the fire official has met with us, and has spoken, and I have not heard that David Thompson did not concur, in fact my understanding is that he has concurred that these plans are fine."*

No further comments were given and the public hearing was closed at 8:26 p.m.

Ms. Cash noted that in listening to everyone; she is sure they all have concerns, issues or worries about this business. She's not sure if she would share those same concerns, she does not live there. She noted that this is not the Board that hears those concerns. She thanked everyone for coming and sharing their concerns but noted that the proper authority for making this decision is the Planning Commission and the Board of Supervisors. She further noted that the Board of Zoning Appeals is there to decide whether the appeal of the approval that the Planning Commission and the Zoning Administrator made were within our purview.

Mr. Miles noted that the decision has been made and feels it's not up to the Board of Zoning Appeals. Mr. Moyer noted that he doesn't think the Board of Zoning Appeals has jurisdiction to relieve their problems. Mr. Childs noted that he agrees that the Board of Zoning Appeals does not have jurisdiction, but he does sympathize with and understand the concerns.

Ms. Cash made the following motion:

I move that the Board of Zoning Appeals, relative to Appeal #2015-02, finds that Mr. Justin Shimp has no standing to file an appeal of the Planning Commission and Zoning Administrator's approvals of Major Site Plan 2015-005 for Zenith Quest-Afton Mountain as:

1. **the petitioner, Mr. Shimp's, appeal seeks to redress some anticipated injury that is not based on current fact;**
2. **the petitioner has no direct interest in the matter, hence is not "aggrieved", as defined by the Virginia Supreme Court, by the Planning Commission, Zoning Administrator or, in this case Building Official's approvals relative to the fire access road.**

Therefore, Mr. Shimp does not have standing to appeal. The Board of Zoning Appeals does not have jurisdiction to approve or disapprove this access road. In addition, Ms. Awkard, Ms. Banks, Ms. Harris are not included in this appeal or motion as they did not file an appeal within the thirty days required by County Zoning Ordinance Section 14-4.

Mr. Miles provided the second; the vote 4-0.

Other Business:

John Bradshaw: Mrs. Hopkins stated that she received a phone call from Mr. Bradshaw stating that he would like to resign from the Board as of June 1st. She further noted that she spoke with Candy McGarry, and she would advertise for the position. It was discussed in doing something special to honor Mr. Bradshaw for honoring his years of service. The Board asked Staff to check out some options of what could be done.

Curro case: Ms. Cash asked if there was an update on the Curro's. Mr. Payne stated that it was noted in the Court of Appeals that it was filed with the wrong Court. He has filed an injunctive relief to have the structure removed. He further noted that the Curro's Attorney is stating that they have no money, he's sick, and the contractor is being taken to court. Mr. Payne stated that they would have to wait until July until there is a new Judge.

Mr. Moyer stated that he would like to check the possibility of taking Mr. Bradshaw's position and the new person could be the alternate. It was noted that it would be up to the Board of Supervisors and the Judge to make that decision. Staff stated they would check on that option, and if there are any requirements to do so, and let the Board know their findings.

Adjournment:

Mr. Childs adjourned the meeting at 8:40 P.M.

Respectfully submitted,

Stormy V. Hopkins
Secretary

DRAFT

Please publish June 18th and 25th, 2015 in the Nelson County Times.

LEGAL NOTICE
NOTICE OF PUBLIC HEARING

In accordance with Section 15.2 of the Code of Virginia, 1950, as amended, and pursuant to Sections 15.2-2285, 5.2-2310, and 15.2-2204 of the Code of Virginia, as amended, the **Nelson County Board of Zoning Appeals** hereby gives notice that a Public Hearing is scheduled for **Monday, July 6th, 2015, at 7:30 p.m.**, in the General District Courtroom on the third floor of the Nelson County Courthouse located at 84 Courthouse Square in Lovingston, for the following:

1. **Variance Request #2015-01 / Ms. Melissa Cash Tenorio**

Consideration of a request submitted by Ms. Melissa Cash Tenorio, dated June 12, 2015, for a variance pursuant to Article 14, Sections 14-2-4 of the Nelson County Zoning Ordinance. The applicant seeks a nine (9) foot variance from the Setback Regulations required in Article 4, Section 3 "Setback regulations." This application is for a 1-acre property at 866 Fox Hollow Road, in Afton, further identified as Tax Map Parcel #6-A-79.

2. **Zoning Appeal #2015-03 / Mr. Justin Shimp, Mr. Ray & Mrs. Nellie Koon, and Ms. Vanessa Schroeder**

Consideration of a petition submitted by Mr. Justin Shimp, Mr. Ray and Mrs. Nellie Koon, and Ms. Vanessa Schroeder (dated June 14, 2015) seeking to appeal and reverse the Zoning Administrator's zoning determination dated May 15, 2015. The petitions states that, "there are several errors within the statements of the Zoning Administrator," and that "[t]he Zoning Administrator erred in making the determination for a variety of reasons."

Specifically, the petitioners are appealing the Zoning Administrator's actions as follows: the implied determination that the proposed assembly, modification, and light manufacturing of firearms is a permissible primary use in the Industrial (M-2) zoning district; the determination that the proposed interior testing of modified and/or assembled firearms is permissible in the Industrial (M-2) zoning district as a permissible accessory use to the assumed permissible primary use of wholesale business, storage warehouse, and assembly, modification, and light manufacturing of firearms; and the determination that an accessory use of any kind is permissible in the Industrial (M-2) zoning district.

The petition specifically requests that the BZA reverse the decision of the Zoning Administrator and find the following: that the assembly of firearms is not a permissible primary use in the Industrial (M-2) zoning district; that the testing of firearms is not permissible as an accessory use in the Industrial (M-2) zoning district; and that the Industrial (M-2) zoning district does not provide or allow for any accessory uses.

Copies of the above files are available for review in the Nelson County Department of Planning and Zoning, located at 80 Front Street, Lovingston, Virginia, Monday through

Friday, 9:00 a.m. to 5:00 p.m. Alternately, you may call the Planning and Zoning Office at 434 263-7090 or toll free at 888-662-9400, selections 4 and 1.

Nelson County does not discriminate on the basis of handicapped status in admission or access to its programs and activities. Accommodation will be made for handicapped persons upon prior request.

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

To: Chair and Members, Nelson County Board of Zoning Appeals

From: Tim Padalino, Planning & Zoning Director

Date: June 25, 2015

Subject: Public Hearing for Variance #2015-01

Site Address / Location:	866 Fox Hollow Road | Afton | North District
Tax Map Parcel:	#6-A-79
Parcel Size:	approximately 1. acres
Zoning:	Agricultural (A-1)
Request:	Approval of Variance #2015-01 to reduce the required seventy-five (75) foot setback by nine (9) feet pursuant to Z.O. §14-2-4
Completed Application Received On: June 12th, 2015	

Introduction & Summary of Applicant Request:

The Department of Planning & Zoning received a completed application on June 12th, 2015 for Variance #2015-01, which seeks County approval for a nine (9) foot reduction in the required front yard setback of seventy-five (75) feet from the center of the road (per Z.O. 4-3-1a).

Specifically, Ms. Melissa Cash Tenorio is seeking County permission to have her home be improved through the (authorized) construction of a porch.

Please note that the porch has already been constructed, and is located sixty-six (66) feet from the center of the state road at its closest point. The recently-constructed porch is not compliant with Uniform Statewide Building Code (USBC) requirements. If this request for a nine (9) foot variance is approved, it will have to be reconstructed.

Property Information:

The subject property for this application is located in the Afton area on Tax Map Parcel #6-A-79. The street address is 866 Fox Hollow Road (Route 608). This is a 1-acre property which is currently zoned Agricultural (A-1). It is owned by Ms. Tenorio, who has signed the affidavit on the application.

Notes from Applicant:

To summarize Ms. Tenorio's comments, as contained in her Variance application materials: the porch would be beneficial for her mental and physical safety and well-being. Please reference her submitted comments, which are enclosed.

Staff Recommendation:

The Planning Department received information about a possible illegal porch several months ago. Mr. Grant Massie went to the property and was able to verify the existence of a porch built without any County-issued permits. Upon being notified of the situation, the applicant was (and continues to be) very cooperative in her efforts to retroactively bring the porch into compliance with applicable laws.

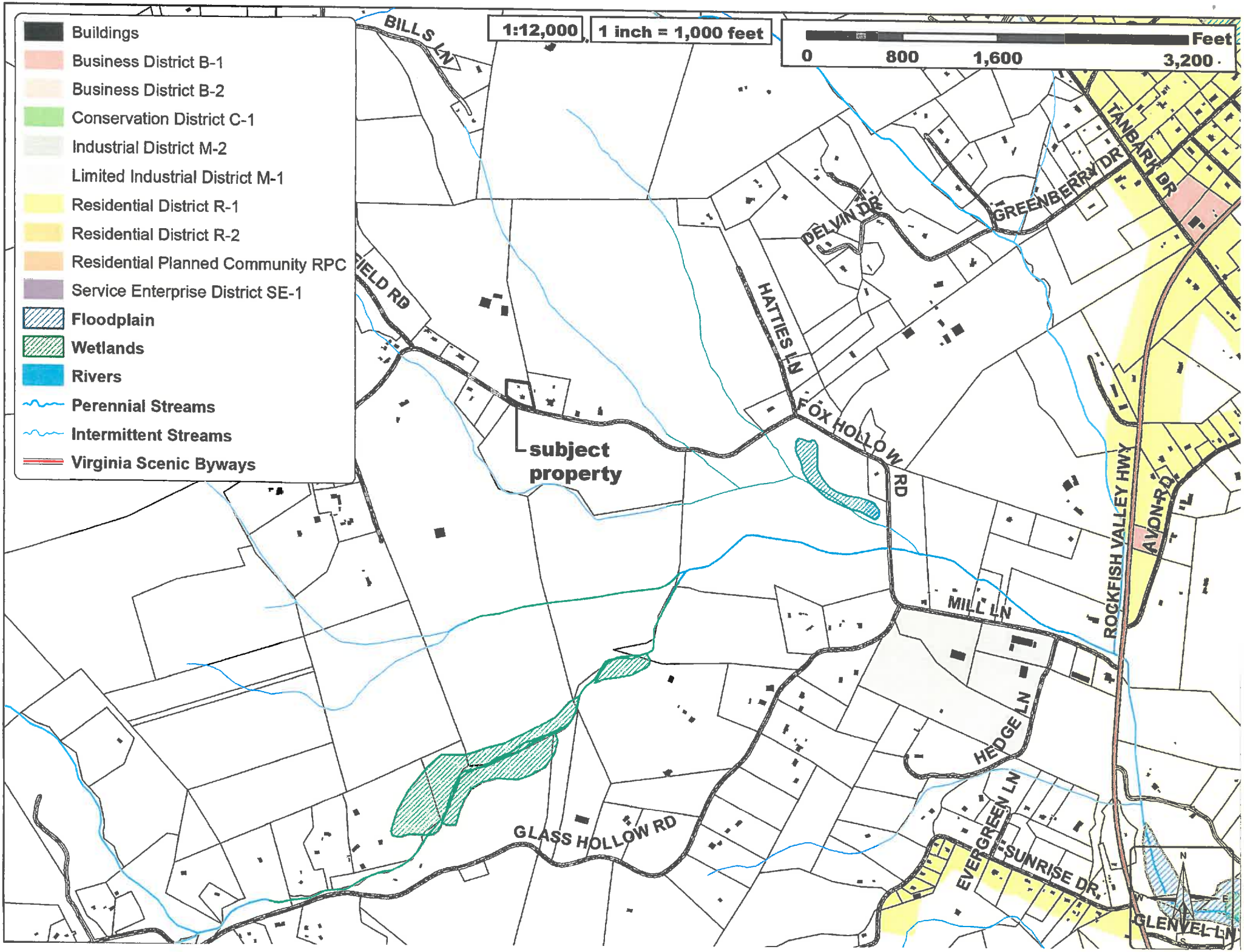
The State right-of-way (ROW) for Fox Hollow Road is curved in its alignment to the house. The southeast corner (of the house) is between eight (8) and ten (10) feet further away from the ROW than the southwest corner (of the house). Therefore, the southeast section could actually have an eight (8) foot wide porch. However, as you approach the southwest section, an eight (8) foot wide porch built parallel to the house would enter into the required front yard setback area.

Allowing or disallowing this request will have little to no impact on the neighborhood. The adjoining property is improved with a home that seems to be closer to the road than Ms. Tenorio's porch. However this has not been measured or verified.

The applicant believes without the porch she would be subject to physical (health) hardship.

With these factors in mind, County staff recommends that the variance request of nine (9) feet be denied, unless the Board of Zoning Appeals determines that the petitioner does in fact have hardship due to the circumstances she has outlined in her application materials. The BZA may also grant the petitioner a smaller (shorter) variance than what is being requested, if it chooses.

The County has fulfilled the Code of Virginia requirements to publicly advertise this process and to notify the adjacent landowners.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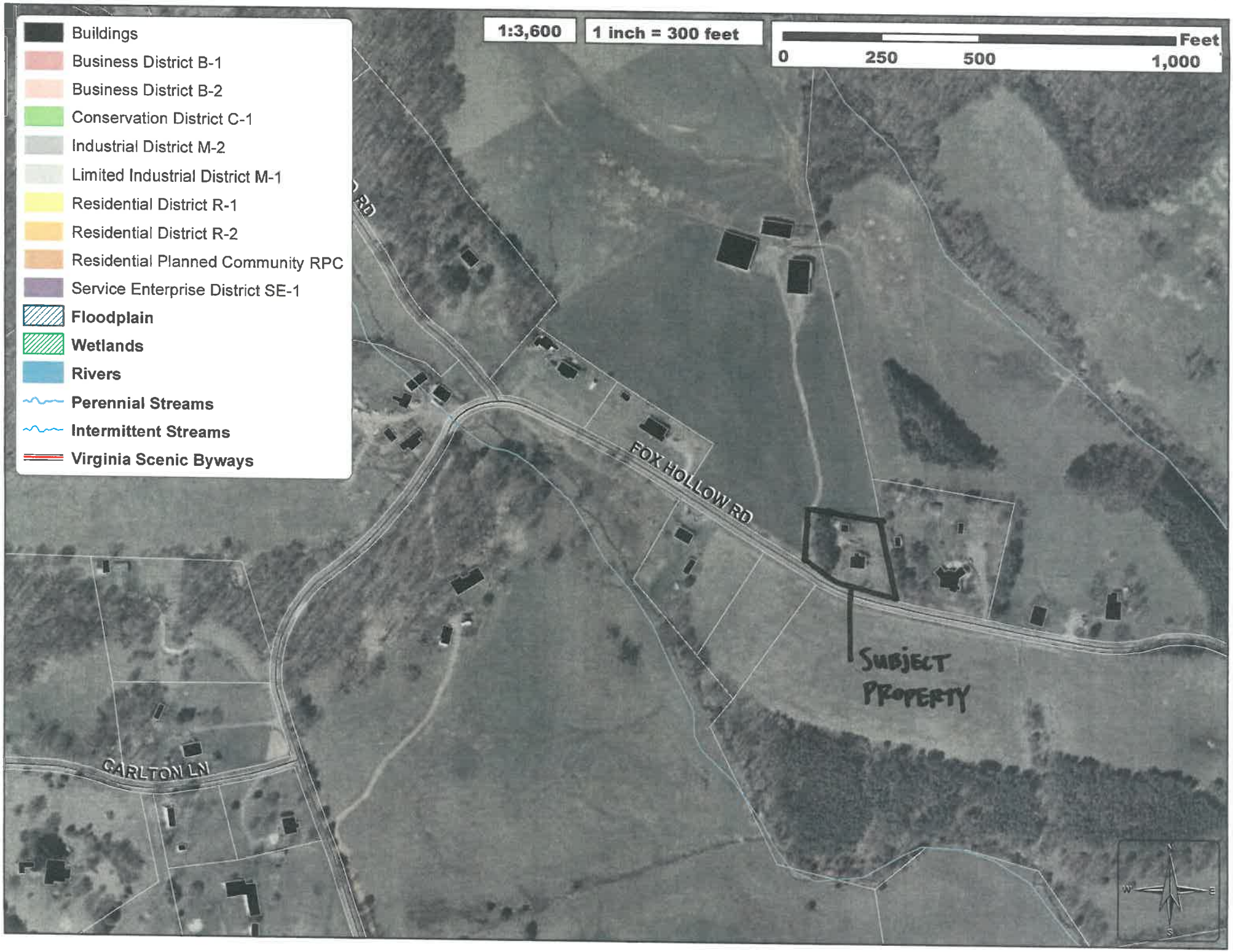
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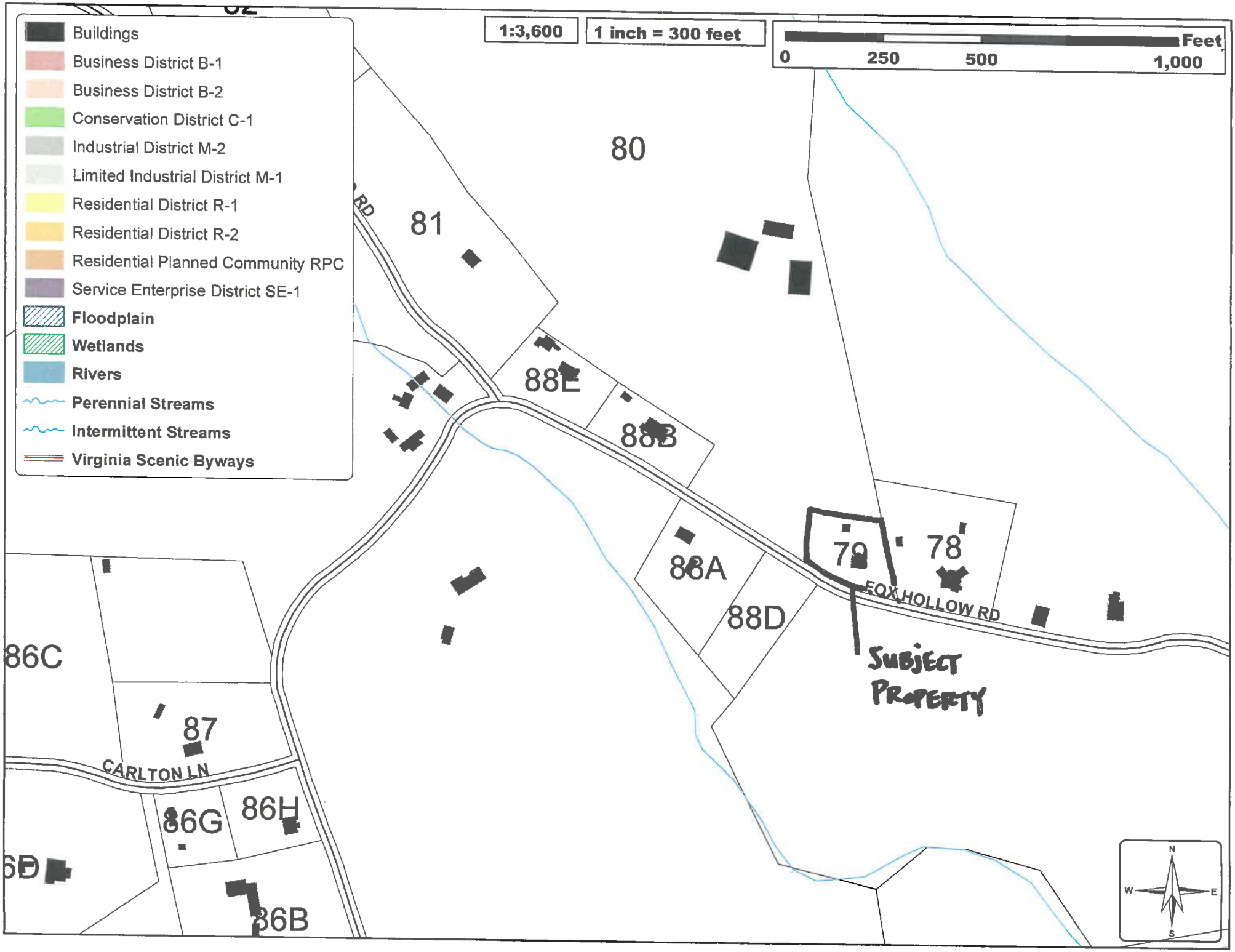
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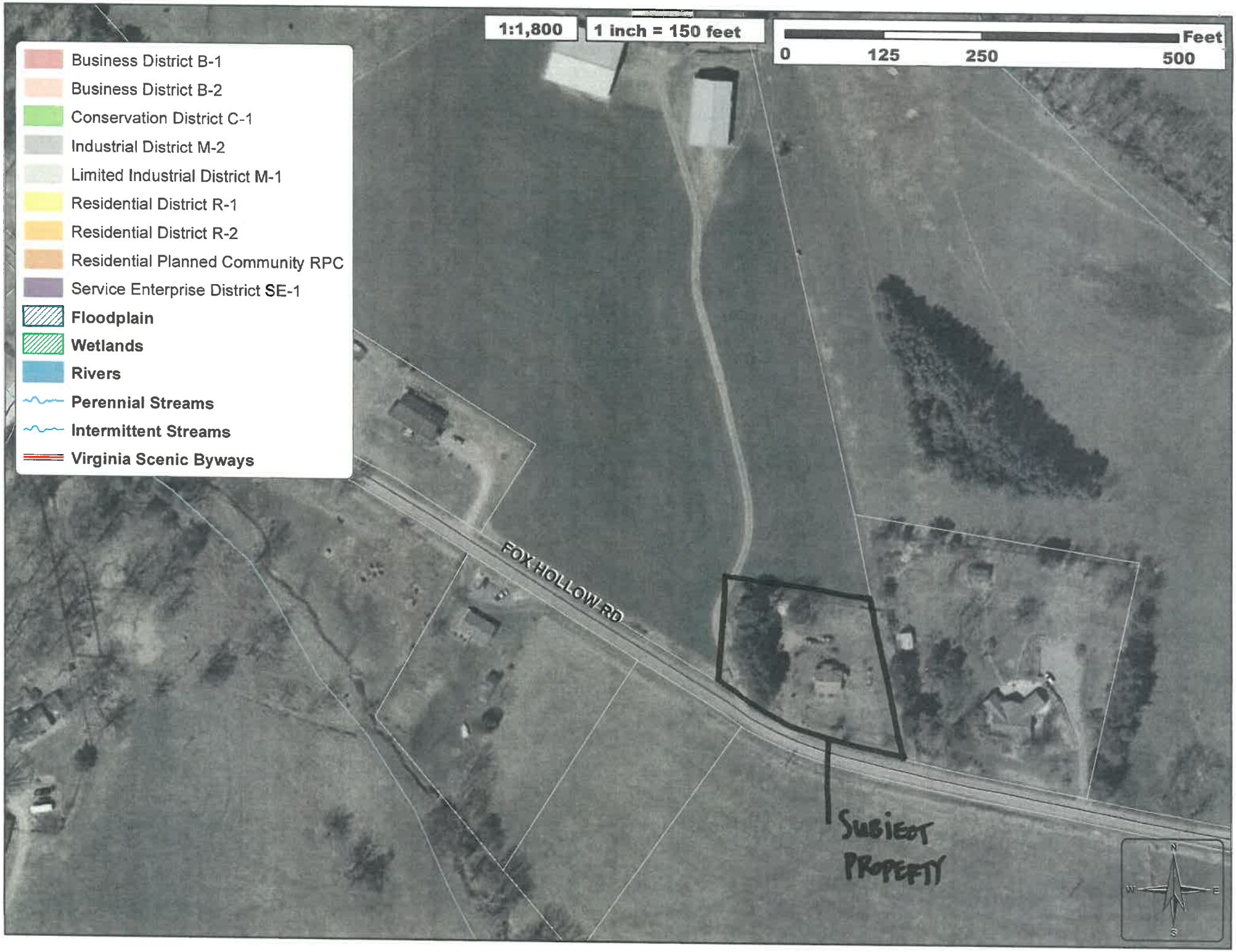
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Residential District R-2
Residential Planned Community RPC
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Floodplain
Wetlands
Rivers
Perennial Streams
Intermittent Streams
Virginia Scenic Byways
FOX HOLLOW RD
SUBJECT PROPERTY

Variance # 2015-03

APPEAL OF A DECISION OF THE ZONING ADMINISTRATOR TO THE BOARD OF ZONING APPEALS (BZA)

A citizen may appeal a zoning ordinance decision of the Zoning Administrator to the Board of Zoning Appeals (BZA). The BZA is a five-member quasi-judicial board appointed by the Circuit Court Judges of the 24th Judicial Circuit Court to hear these appeals.

To appeal, a citizen must file a *Petition for Appeal to the Board of Zoning Appeals* with the Zoning Administrator. The BZA will meet and hear the appeal and decide if a variance should be granted. A variance is granted by the BZA upon the affirmative vote of at least three of its members.

The BZA is restricted by certain requirements of state law in granting variances. State law does not allow the BZA to grant a variance as a personal accommodation, or because no one objects, or because it accomplishes what one might consider a "fair" result.

In order to grant a variance under Virginia law, the BZA must find: (1) that the strict application of the zoning ordinance would produce undue hardship; (2) that even if the hardship exists, it is not shared generally by other properties in the same zoning district and vicinity; and (3) that authorization of a variance will not be of substantial detriment to adjacent properties and the character of the zoning district will not be changed by its grant.

State law provides that a variance is appropriate only when the application of the zoning ordinance to a particular piece of property is adversely affected by reason of the "exceptional narrowness, shallowness, size or shape of a specific piece of property", and the application of the zoning ordinance "would effectively prohibit or unreasonably restrict the use of the property" or cause "a clearly demonstrable hardship approaching confiscation."

The applicant must produce evidence (petition, map, if available, and oral presentation) of the three factors mentioned above at the hearing before the BZA. The Supreme Court of Virginia has stated that a variance is a remedy that is properly applicable only in rare circumstances. The Court has narrowly interpreted the provisions of Virginia law to amount only to a "constitutional safety valve" which avoids confiscation by the operation of the zoning ordinance alone.

Applicants should provide as much detail as possible in the Petition that is provided to you by the Zoning Administrator.

PROCEDURE FOR FILING A PETITION OF APPEAL TO THE BOARD OF ZONING APPEALS

A petition of appeal to the Board of Zoning Appeals involving a variance or other appeal of a decision of the Zoning Administrator must be accompanied by the following information:

1. A completed *Petition for Appeal to the Board of Zoning Appeals* form;

2. A filing fee, in accordance with the fee schedule, to cover the costs of legal advertisements in the newspaper, mailing of letters to adjacent property owners, and review by the County staff;

3. A plat (legal size paper maximum) drawn to scale showing the lot or property described in the application, location of existing and proposed buildings, alterations, or additions, all setback lines, and the limits of any variance requested;

4. A location sketch of any property involved showing nearest road intersection(s), and a list of adjoining property owners.

5. Any applicable forms and/or documents, such as a certificate of elevation.

The above information must be submitted and fee paid to the Zoning Administrator before the required legal advertisements, meeting of the Board, and public hearing can be scheduled.

Variance # _____

PETITION FOR APPEAL TO THE BOARD OF ZONING APPEALS
Nelson County, Virginia

1. PETITIONER(S):

Name: Melissa Cash Tenorio
Address: 866 Fox hollow Rd Afton VA 22920

2. PROPERTY OWNER(S):

Name: Melissa Cash Tenorio
Address: 866 Fox Hollow Rd Afton VA 22920

3. TYPE OF APPEAL (CHECK ONE):

☐ **VARIANCE TO SECTION _____ OF THE ZONING ORDINANCE**
☐ **INTERPRETATION OF SECTION _____ OF THE ZONING ORDINANCE**
☐ **OTHER _____(SPECIFY) (IF "OTHER", DO NOT ANSWER QUESTION #5)**

Explanation and description of reason(s) for appeal:
See Page 4- Also I am singled out when others are doing their own things without Complications. I get discriminated against for trying to be Compliant.

4. LOCATION AND CHARACTERISTICS OF ANY PROPERTY INVOLVED WITH APPEAL:

a. Address of property: 866 Fox Hollow Rd Afton VA 22920
b. Subdivision: _____
c. Official tax map number: 16 A 79
d. Acreage of property: 1 Acre more or less
e. Present use: private home for peaceful existence
f. Present zoning classification: A-1
g. Zoning classification of surrounding properties: A-1

5. Will the appeal, if granted, have any effect on present or future street right-of-ways, setbacks, and other improvement plans? (Refer to the County, Nelson County Service Authority, Virginia Department of Transportation - Amherst Office, if applicable.) If yes, give explanation.
No Affect

6. The Code of Virginia (Sec. 15.2 - 2309) and State case law contain specific requirements for the granting of a variance. Variance requests issued for reasons not related to these criteria constitute an invalid application of Board authority. The fact that the Board feels it is doing "justice", the request is considered necessary and essential by the applicant for personal, health, or other reasons, or the request is not opposed by nearby property owners does not, when standing alone, constitute valid reasons for the granting of a variance. The State Code requires that no variance shall be authorized unless the Board finds:

a. The strict application of the ordinance would produce undue hardship.

b. The hardship is not generally shared by other properties in the same zoning district and the same vicinity, i.e. the zoning requirement from which the variance is sought would not similarly restrict other properties which are zoned the same as the subject property.

c. The authorization of the requested variance would not be a detriment to adjacent properties nor would the character of the zoning district be changed, if granted, i.e., the request would not reduce the amount of protection generally provided between adjoining properties under the existing Zoning Ordinance or would not permit a use or development which would be permitted if the property were rezoned to another zoning classification.

d. The condition of the property or the proposed use is not of such a recurring nature in the community as to make the adoption of a general Zoning Ordinance amendment practical which would otherwise permit the proposed use by right, i.e., the variance would not have the effect of resolving recurring zoning problems shared generally by other property owners in the same district or vicinity.

e. Approval of this and other similar requests would not have the effect of ultimately nullifying the zoning restriction.

f. Financial loss is not the only hardship that would be inflicted by the Zoning Ordinance requirement but is a factor to be considered.

g. The hardship is not self-inflicted in any manner.

The granting of the requested variance would alleviate a clearly demonstrable hardship approaching confiscation as distinguished from a special privilege or convenience.

Identify and explain the hardship involved:
It would allow me to safely walk outside using the banisters to hold on to and it would not create any hardship or disturbance to any of the property owners on either side of me.

Under State law, applicants must show how their request meets the following criteria for the granting of a variance:

a. The exceptional narrowness, shallowness, size or shape of the property, its topographic conditions, or other extraordinary conditions of the property, or use of immediately adjacent property effectively prohibit or unreasonably restrict the use of such property in a manner consistent with Zoning Ordinance requirements.

Identify any such special physical conditions associated with the property or adjacent property that justify the granting of a variance:
The curvature of my left side of driveway is not the same as the right side of the drive way due to the road

7. AFFIDAVIT:

The undersigned petitioner certifies that this petition and the foregoing answers, statements, and other information herewith submitted are, in all respects, true and correct to the best of their knowledge and belief. Also, the petitioner gives permission for members of the Board of Zoning Appeals and County Staff to visit and view the subject property.

Signature: Melissa Cash Denario Date 6/12/15
Mailing Address: 846 Fox Hollow Rd Afton VA 22920

434 962-1022

Telephone Number(s): 434-531-0083 *Variance #* _____

8. AFFIDAVIT PROPERTY OWNERS: (If not petitioner[s])
The undersigned property owner(s) has authorized the submission of this Petition:

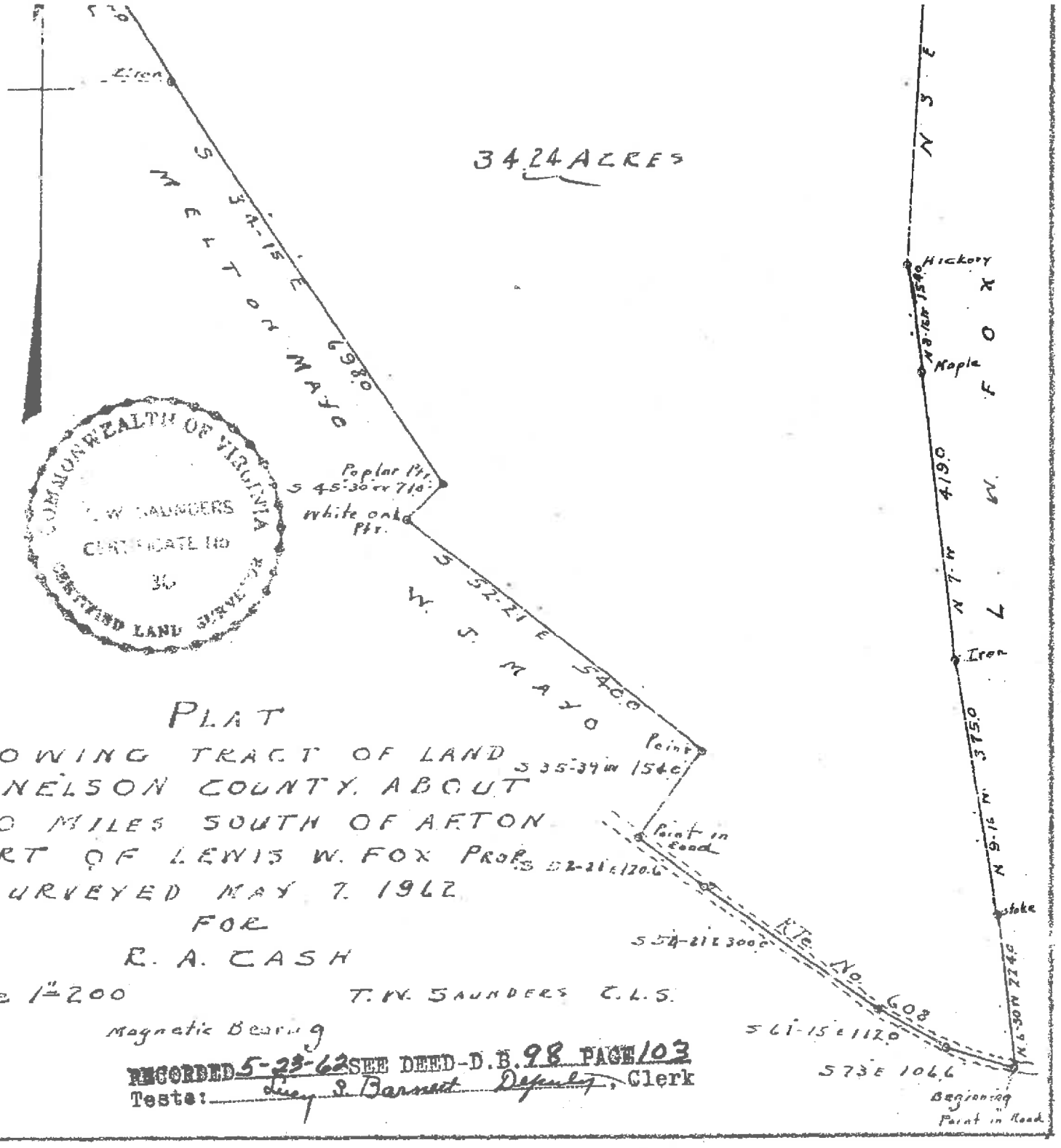
petitioner

TO BE COMPLETED BY BOARD OF ZONING APPEALS STAFF

6-12-15

Completed application and $ 150.00 **fee received on** June 4, 2015. **Public Hearing notice published on** 6-18-15 **and** 6-25-15 **for hearing on** July 6, 2015
Date of Decision: _____ **Decision:** _____

I feel much safer walking on the porch using the banisters to hold on to being able to lean on the banisters when my knees give out. I have 8" of metal in my back and my other difficulties walking. with my spastic Gait I need something steady and Certain to hold on to. my walker with wheels doesent do the job because of the pain in my shoulder and if I fall I am unable to get back up using the brakes and pulling up at the same time. The extra 9' allows me to go out on my back porch and see people also that are walking on the road and speak and Communicate with them about what is going on around the neighborhood. Also if I didnt have my porch I would just stay inside of my house which would also worsen my depression.



PLAT

SHOWING TRACT OF LAND IN NELSON COUNTY, ABOUT TWO MILES SOUTH OF AFTON PART OF LEWIS W. FOX PROP'S

SURVEYED MAY 7, 1962

FOR

E. A. CASH

Scale 1" = 200'

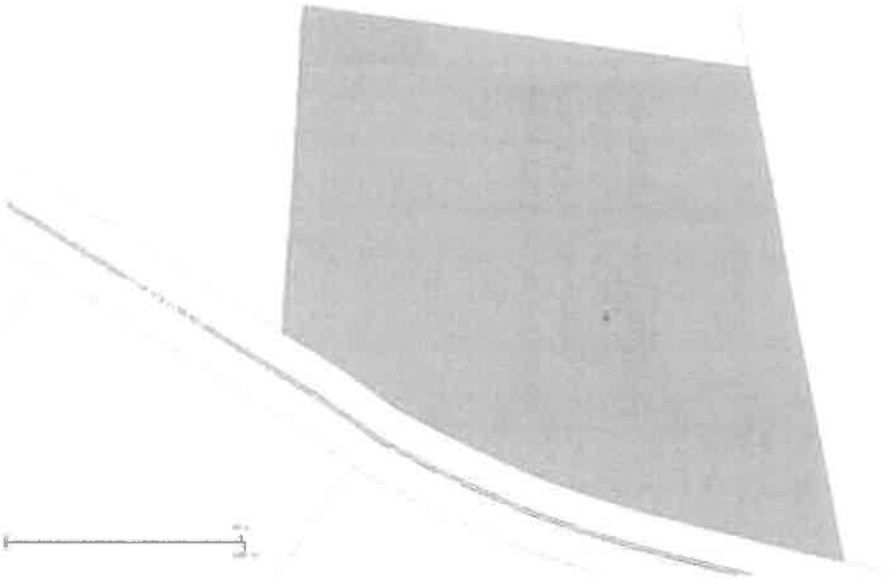
T. W. SAUNDERS C.L.S.

Magnetic Bearing

RECORDED 5-23-62 SEE DEED-D.B. 98 PAGE 103
Teste: Lucy S. Barnett Deputy, Clerk

RECORDED 5-23-62 SEE DEED-D.B. 98 PAGE 103
Teste: Lucy S. Barnett Deputy, Clerk

_____, Clerk



Nelson County, Virginia
Property Record Card
June 10, 2015

Commissioner of Revenue
Post Office Box 246
84 Courthouse Square
Lovingston, Virginia 22949

Phone: 434-263-7070
Email:jpayne@nelsoncounty.org

Parcel No:	6 A 79	**City:**	AFTON
Address:	866 FOX HOLLOW RD	**LRS No:**	7318
Class:	2	**Total Acres:**	1
Class Description:	2-single family subur	**Description 1:**	MACGREGOR-CASH
Magesterial District:	3	**Description 2:**	DB 121/139
DeedBookandPage:		**Description 3:**	

Fiscal Year (Jan 1-Dec 30)	Land	Improvements	Total Value
	70000	32200	102200

nelsoncountygis.org
Nelson County, VA

Nelson County Department of Building Inspections
P O Box 558
Lovingston, Virginia 22949

February 4, 2015

Tenorio – Permit Application # 10-2015
866 Fox Hollow Rd.

Site Visit – 2/2/2015 @ app12:25 PM
Knocked on door – No one home answering

I found the following apparent USBC deficiencies involving the roof/deck addition:

1) Roof slope may not be less than a 4:12 pitch or more for single underlayment shingle application.
2) Lacks footings to distribute loads adequately to soils.
   Roof system designed to distribute loads to the structural supporting columns. The roof system is not designed to support a 30 PSF ground snow load. Roof system bears to trim of existing home rafter ends/ rather than bearing to the existing bearing wall of the home- the other end of the rafters bear to a single ply rim ban 2x6 – with tails extended for overhang no bearing supported by roof decking only. – Single ply rim band (exceeds the max. span of 4 ft and must be 2 ply or more) – rafters not supported to rim band by approved hangers. Column to post connections are incorrect- a min. of 1-1/2" bearing is required with a positive up lift connection provided.
3) A minimum ceiling height clearance of 6"-*" is required from the finished floor to the ceiling framing.
4) The deck floor is required to safely support a total floor load of 50 PSF (40 PSF LL & 10 PSF DL) The roof loads along with the deck floor loads must be provide a load path directly to footings. Deck Posts lacks footing below the recorded frost line. The floor system components must distribute the loads to the columns and the 4x4 columns need to be 6x6 columns to be notched for the rim band/ girders for post to post connections. All single ply rim bands or girders exceeding a span of 4 ft. must be 2 ply or more. Deck
5) Stair risers cannot must restrict a 4" opening.

David is working with Shorty to remedy Building part

USBC Edition 2009
Use Group R-5

NELSON COUNTY
BUILDING PLAN REVIEW

(MAINTAIN A COPY OF THIS FORM WITH BUILDING PLANS ON JOB SITE)

Permit # 10-2015
Applicant: Tenorio, Melissa Cash
Project: Porch addition to Single Family Dwelling

Review Date: 1-15-2015
Reviewer: Thompson
Location: 866 Fox Hollow Road

APPROVED X NOT APPROVED ___ DATE 1-15-2015

PAGE #	COMMENT #	COMMENT
1	1	Buildings and structures, and all parts thereof, shall be constructed to safely support all loads, including dead loads, live loads, roof loads, floor loads, snow loads, wind loads and seismic loads as prescribed by this code. VRC R301.1
1	2	A continuous load path shall be designed to transmit the uplift forces from the rafter or truss ties to the foundation. VRC 802.11.1
1	3	The columns shall be restrained to prevent lateral displacement at the bottom end.VRC 407.3
1	4	Decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. **Where positive connection to the primary structure cannot be verified during inspection, decks shall be self-supporting. VRC R502.2.2**
1	5	For roof slopes 2:12 up 4:12 double underlayment application is required in accordance with section R905.2.7. VRC R905.2.2
GENERAL	1	Handrails required for all stairs of four or more risers and must be continuous through the full length of the stairs. Graspability must meet requirements for either Type I or Type II. Handrails must be returned to the wall or terminated in newel posts or safety terminals. At least 1.5 inches shall be provided between the wall and handrail. VRC R311.7.7
	2	Guards shall be located along open-sided walking surfaces, including stairs, ramps, and landings, that are located more than 30 inches measured vertically to the floor or grade below at any point within 36 inches horizontally to the edge of the open side. Insect screening shall not be considered as a guard. Minimum height is 36 inches and openings must prohibit passage of a 4 inch sphere except that openings for guards on the sides of stair treads shall not allow passage of a 4 3/8" sphere. VRC R312.1 Exterior wood/plastic composite guards shall comply with the provisions of VRC R317.4. VRC312.4 Open risers are permitted provided that the opening between the treads do not permit the passage of a 4-inch sphere. VRC R311.7.4.3

*Plan approval is conditional based on comments listed and does not constitute approval to violate any provision of the Virginia Uniform Statewide Building Code, Nelson County Zoning Ordinance or any other applicable federal, state or local regulation. All work is subject to field inspection for approvals.

on hold for Zoning

26 2x6x10

3 plywood sheets

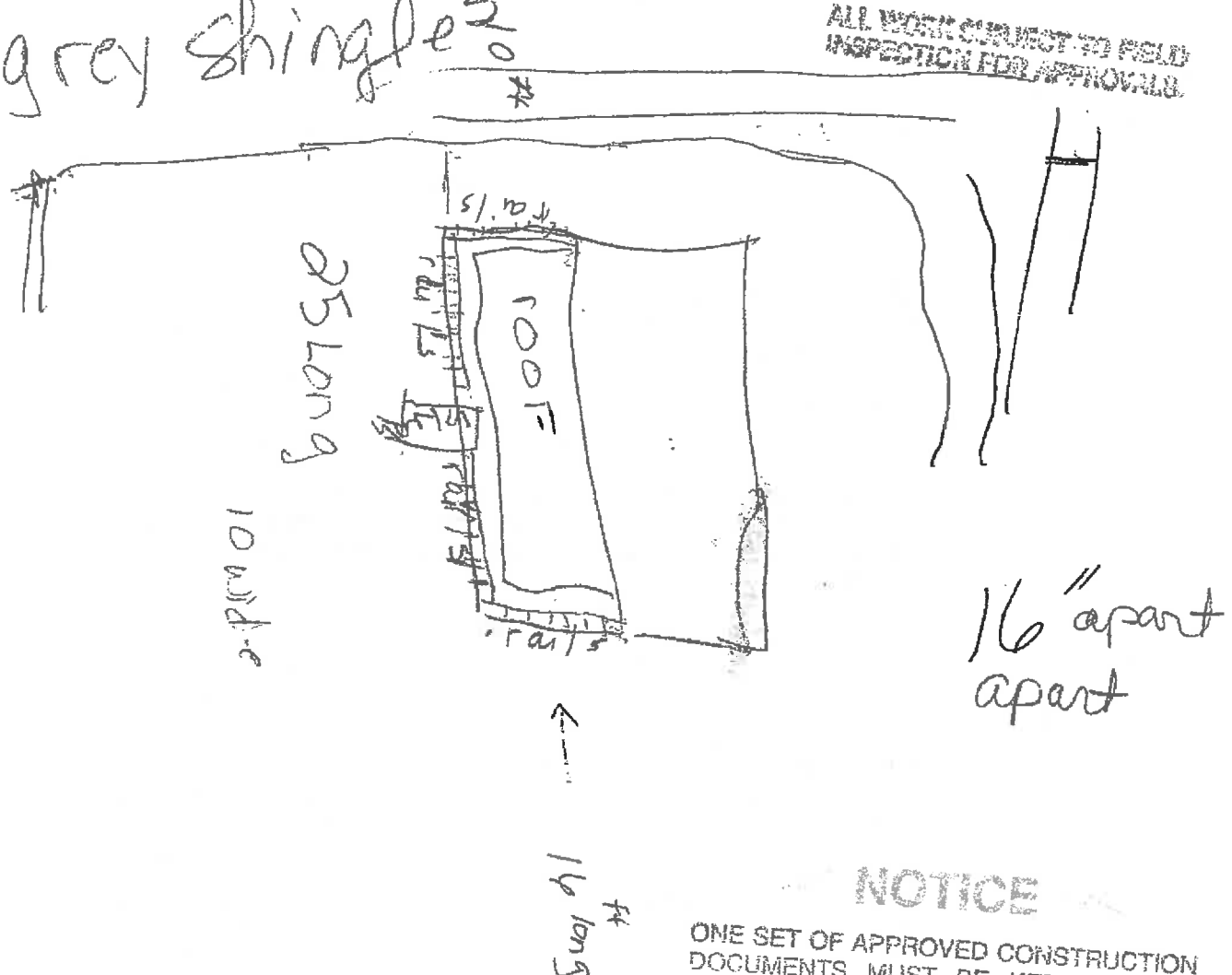
1 Lattice

14 pickets

4 grey shingles

"Shorty"

540-470-7068



NOTICE

ONE SET OF APPROVED CONSTRUCTION DOCUMENTS MUST BE KEPT AT THE BUILDING SITE AND OPEN FOR INSPECTION AT ALL REASONABLE TIMES.

PLAN REVIEW BY: [signature]

DATE: 1-15-2018

ALL WORK MUST COMPLY WITH THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE AND IS SUBJECT TO FIELD INSPECTION FOR FINAL APPROVAL.

* Porch Already Built (1-12-15)

Date: 1-13-2015

Nelson County Department of Planning & Zoning
80 Front Street, Lovingston, VA 22949 | P.O. Box 558 (mail) | 434-263-7090 (office) | 434-263-7086 (fax)

ZONING / SITE PLAN APPROVAL

Owner: Melissa CASH Tenorio

Applicant: Owner

Applicant Address: 866 Fox Hollow Road

Phone: _____

Tax Map Parcel: 6-A-79 Acres: 1.00

Description: Building Porch with Roof on front of House

-151, left on Mill Ln (609), Rt on Fox Hollow (608) aprox 0.8 miles, House on Rt.

For Planning & Zoning Use

Zoning District: A-1

Floodplain on Property: YES ____ NO ✓

Structure in Floodplain: YES ____ NO ✓

Minimum Required Setbacks:	
Front: 75'	☒ 75' From Road Centerline ☐ 50' From Edge of R.O.W
Rear: 25'	
Side: 25' (min. total of left + right setbacks) Right: 10' Left: 15'	
☐ Accessory: 15' from all property lines *and* behind front yard setback line	

CONDITIONS:
Must meet all minum required setbacks as stated above.

Porch was built prior to issuance of permit.
South west corner may be within front set back line

ZONING ~~APPROVAL~~: Daniel C Mann 1-21-15
Date

Timothy M. Padalino | Director of Planning & Zoning

Sent to property 1-15-15 Measured 50' from SW corner to bottom of embankment. Approximately 66' to center of state road.

DEPARTMENT
OF INSPECTIONS

DAVID THOMPSON
Building Code Official

DEBBIE HARVEY
Admin. Secretary

January 22, 2015

Melissa Cash Tenorio
866 Fox Hollow Road
Afton, Virginia 22920

Dear Ms. Tenorio:

Recently you submitted an application for the construction of a porch onto the front of your house located at 866 Fox Hollow Road. We are not able to issue this permit as the Planning/Zoning Dept. has denied zoning approval because of a setback regulation. You may contact the Planning/Zoning office at 434-263-7090 or at 80 Front Street, Lovingston, Va and they can advise you if there is any recourse or appeal to their decision.

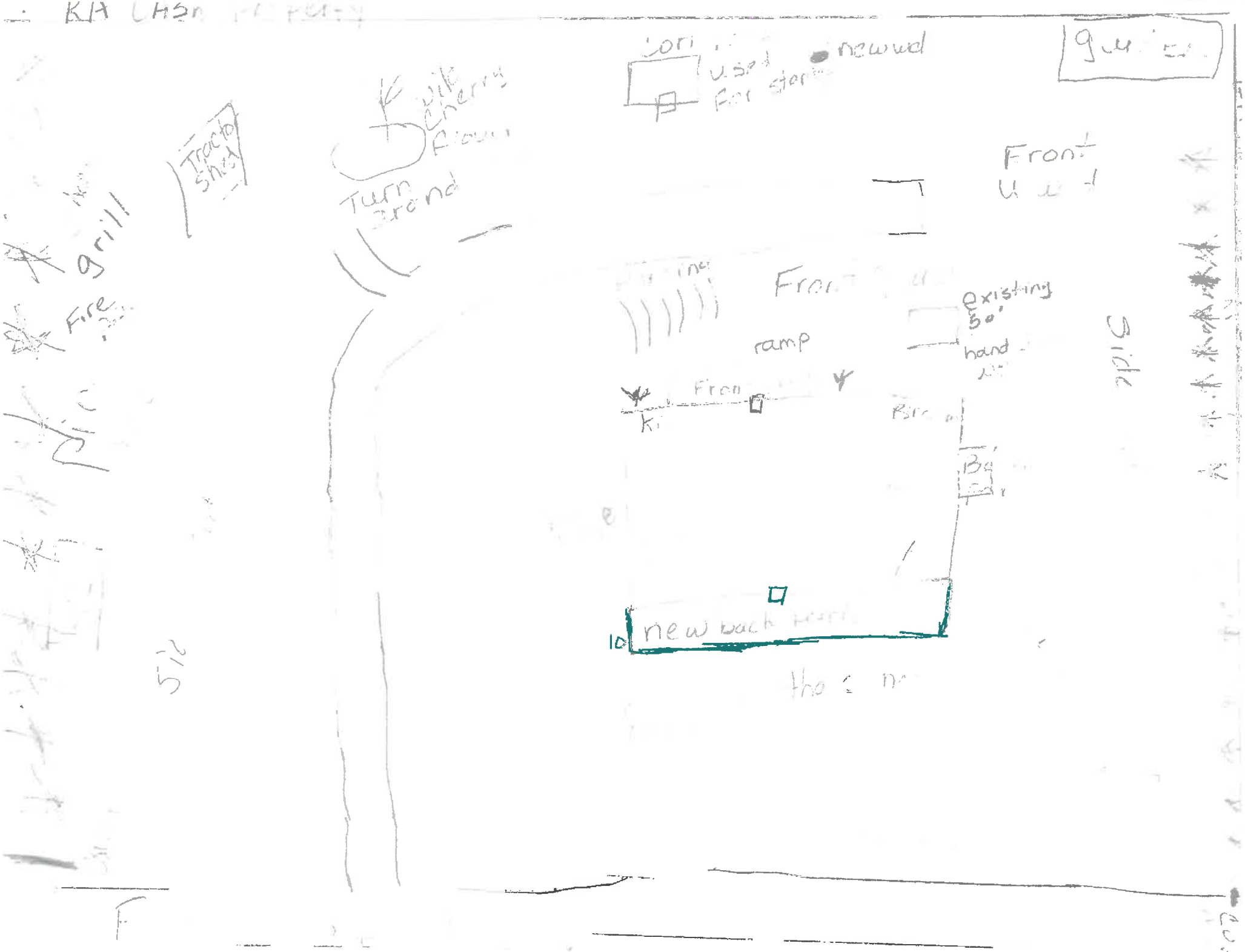
You may abate these violations of the Uniform Statewide Building Code and the Nelson County Code, by promptly removing the porch by March 1, 2015, that was constructed prior to obtaining a building permit, required by 13VAC5-63-80, Section 108.

Feel free to contact me should you have any questions.

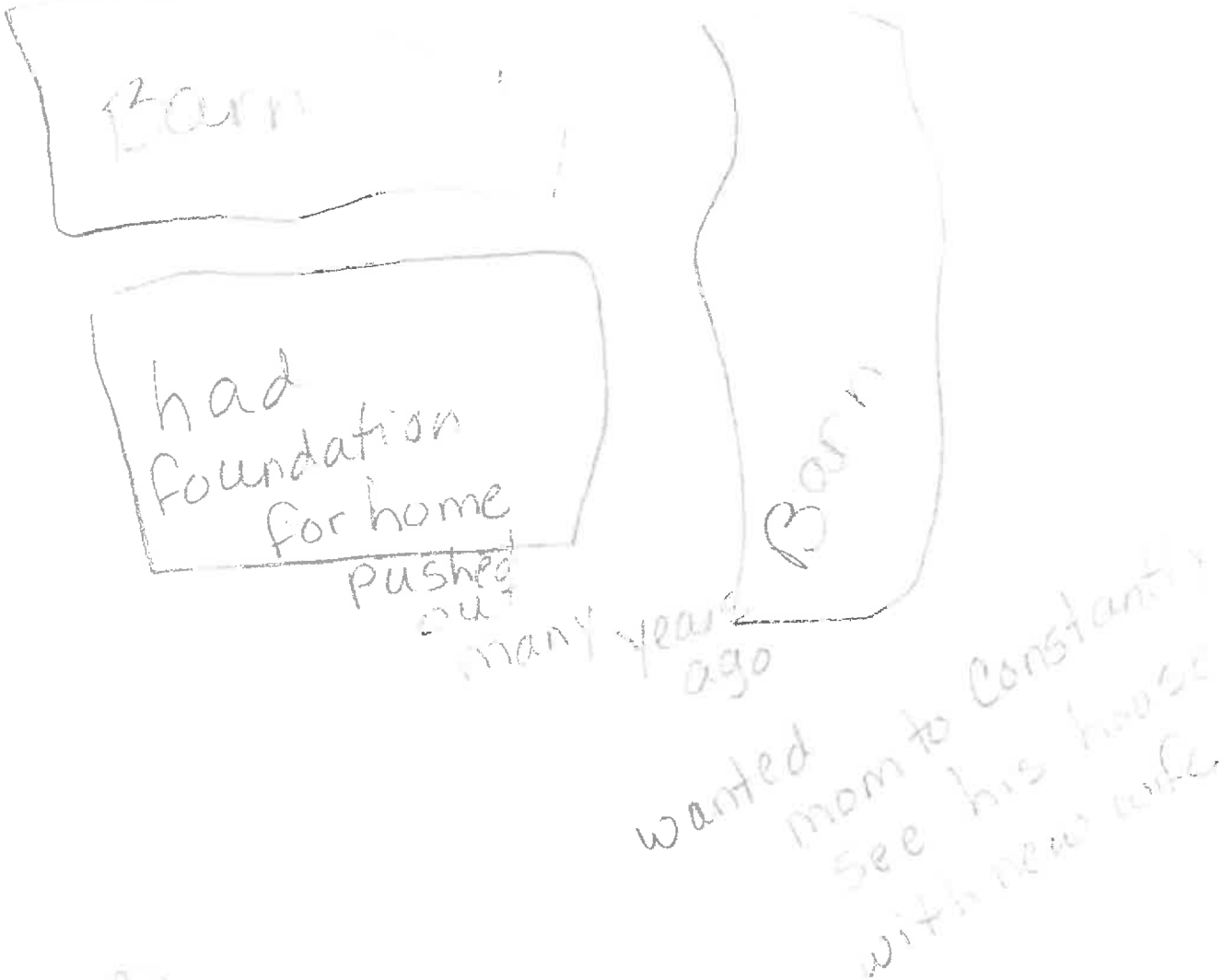
Sincerely,

David L. Thompson
Building Official,
Nelson County

Cc: Grant Massie, Planning/Zoning



Tractor Shed
grill
Fire
Turn Grand
used for storage
new wd
Front
existing 50'
ramp
hand
Side
new back
10


Barn
had foundation for home
pushed out
many years ago
Barn
wanted mom to Constantin
see his house
with new wife

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

June 22, 2015

Dear Property Owner:

The following petition has been made to the Nelson County Board of Zoning Appeals (BZA), regarding a tract of land adjacent to or near property you own in Nelson County:

Variance Request #2015-01 / Ms. Melissa Cash Tenorio

Consideration of a request by Ms. Melissa Cash Tenorio for a variance pursuant to Article 14, Section 14-2-4 of the Nelson County Zoning Ordinance. The applicant seeks a nine (9) foot variance from the Setback Regulations required in Article 4, Section 3 "Setback regulations." This application is for a 1-acre property at 866 Fox Hollow Road, in Afton, further identified as Tax Map Parcel #6-A-79.

This application will be considered by the Nelson County Board of Zoning Appeals on Monday, July 6, 2015 at 7:30 P.M. in the General District Courtroom on the third floor of the County Courthouse, Lovingston.

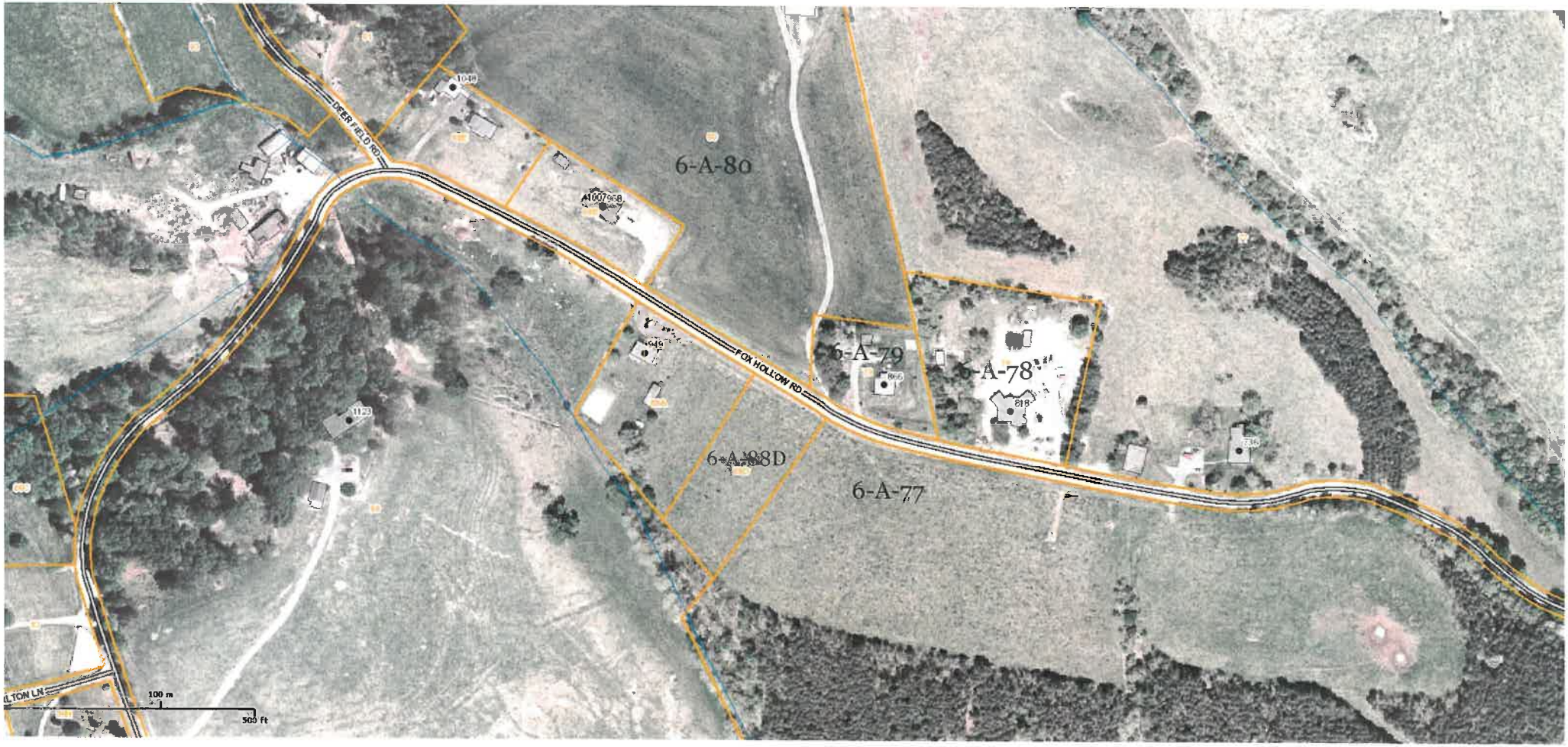
As required by law, this notice is provided to inform adjoining property owners of this request. If you wish to learn more about this request and/or submit comments, you may contact and/or visit the Department of Planning & Zoning, and/or attend the meeting. Please contact staff with any questions and/or requests for assistance.

Sincerely,

Timothy M. Padalino
Director of Planning & Zoning

TMP/svh

Copy to: Melissa Cash Tenorio



Parcel ID	Parcel Address	Owner Name
6-A-79	866 FOX HOLLOW ROAD	TENORIO MELISSA C
ADJOINING PROPERTY OWNER(S):		
6-A-78	818 FOX HOLLOW ROAD	COLE DAVID B
6-A-80		CASH ROGER A
6-A-88D	949 FOX HOLLOW ROAD	MAWYER WILLIAM FRANKLIN & DIANE S
6-A-77	736 FOX HOLLOW ROAD	KYLEXIS PROPERTIES LLC

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

To: Chair and Members, Nelson County Board of Zoning Appeals (BZA)

From: Tim Padalino, Planning Director and Zoning Administrator

Date: June 25, 2015

Subject: Zoning Appeal #2015-03 (Shimp / Koon / Schroeder)

Appeal Introduction and Overview:

Nelson County staff with the Department of Planning & Zoning have received a "Petition for Appeal to the Board of Zoning Appeals" dated June 14th, 2015. The petition involves the requested, "appeal of Zoning Administrator decision regarding an approved use" in the Industrial (M-2) zoning district.

Zoning Appeal #2015-03 has been submitted by Mr. Justin Shimp, Mr. Ray and Mrs. Nellie Koon, and Ms. Vanessa Schroeder seeking to appeal and reverse the Zoning Administrator's zoning determination dated May 15, 2015. The petitions states that, "there are several errors within the statements of the Zoning Administrator," and that "[t]he Zoning Administrator erred in making the determination for a variety of reasons."

Specifically, the petitioners are appealing the following actions of the Zoning Administrator:

- the implied determination that the proposed assembly, modification, and light manufacturing of firearms is a permissible primary use in the Industrial (M-2) zoning district;
- the determination that the proposed interior testing of modified and/or re-assembled firearms is permissible in the Industrial (M-2) zoning district as a permissible accessory use to the assumed permissible primary use of wholesale business, storage warehouse, and assembly, modification, and light manufacturing of firearms; and
- the determination that an accessory use of any kind is permissible in the Industrial (M-2) zoning district.

The petition specifically requests that the BZA reverse the decision of the Zoning Administrator and find the following:

- that the assembly of firearms is not a permissible primary use in the Industrial (M-2) zoning district;
- that the testing of firearms is not permissible as an accessory use in the Industrial (M-2) zoning district; and
- that the Industrial (M-2) zoning district does not provide for or allow for any accessory uses.

Please note that the petition explicitly lists three property owners as being involved in Zoning Appeal #2015-03:

- Kaya Properties, LLC: listed owner of Tax Parcel #4-A-44A, a 10-acre property zoned Industrial (M-2), and the subject property for approved Major Site Plan #2014-005 "Zenith Quest – Afton Mountain"
- Veritas Works, LLC: listed owner of Tax Parcels#4-A-28 and #4A-3-106, -107, -107A, -108, and -109, which together comprise 5.72-acres of Industrial (M-2) zoning district
- Advancing Native Missions: listed owner of Tax Parcels #4-A-29A, a 7.63-acre property zoned Industrial (M-2) and abutting Parcel #4-A-44A (across Critzer Shop Road).

Please also note the following:

- All interested parties have been notified in writing pursuant to Code of Virginia §15.2-2312 "Procedure on appeal" and pursuant to Nelson County Zoning Ordinance (Z.O.) Article 14, Section 5-3.
- All adjoining property owners have been properly notified pursuant to Z.O. Article 14, Section 5-3.
- Pursuant to Z.O. Article 14, Section 4, Appeal #2015-03 results in a "stay" against any use of any firearms firing range / testing facility – but does not "stay" the design, planning, permitting, or construction of such a facility.

Overview of 'Papers' / 'Records' for Zoning Appeal #2015-03:

For more detailed information about the specific requests and claims made by the petitioners, please review the following enclosed materials (listed below), which contain all papers, records, and pertinent details regarding the subject matter of Zoning Appeal #2015-03. *Please note that certain materials and records have been redacted or withheld at the direction of the County Attorney, due to their eligible status as attorney-client privileged materials and/or attorney work products.*

1. Copy of Zoning Appeal #2015-03, submitted on June 14th, 2015 by Mr. Justin Shimp of 148 Tanbark Drive; Mr. Ray & Mrs. Nellie Koon of 278 Afton Mountain Road; and Ms. Vanessa Schroeder of 33 Afton Mountain Road. The submission includes the "Petition for Appeal to the Board of Zoning Appeals," a supplemental letter signed by all petitioners, and also an explanatory email from Mr. Shimp.
2. Associated documents with Zoning Appeal #2015-03, including the acknowledgment letter, the adjoining property owners' letter, and the advertisement for a legal notice of public hearing.
3. An excerpt of the Nelson County Zoning Map showing the locations of the petitioners' properties as well as the locations of the Kaya Properties, LLC, Veritas Works, LLC, and Advancing Native Missions properties.
4. Copy of correspondence from the Zoning Administrator to Mr. Ray Miles of Zenith Quest International (titled "RE: from Ray at Zenith Quest re: possible basement" and dated May 15th, 2015) containing the zoning determination being appealed by the petitioners.
5. Copies of all additional applicable "papers" pursuant to Z.O. Article 14, Section 4. These include staff reports, meeting minutes, review documents, site plan drawings, and email correspondence related to Major Site Plan #2014-005 "Zenith Quest – Afton Mountain."

Summary of County Review & Approval Process (with Emphasis on "Permissible Uses"):

Please reference the following chronological summary of Nelson County's review and approval of the land uses that are the subject of Zoning Appeal #2015-03, as reflected in the papers and records accompanying this report:

- August 13, 2014 Site Plan Review Committee meeting:
  - The Site Plan Review Committee met with representatives of Zenith Quest prior to any application being submitted. A preliminary discussion took place between the Committee and the pre-applicants, and a site visit was determined to be the next step. See enclosed notes from that meeting for more information.

- August 21, 2014 email from Tim Padalino to Ammy George (Roudabush Gale and Associates):
  - The following question, which originated with one of the Planning Commission members, was posed to Ms. George in writing:
    - *"'Light assembly' of weaponry: will these modified or assembled guns be tested on site, and if so, how will the testing facility operate? Would it be an interior, soundproof facility?"*
  - No response(s) to these questions were received from Ms. George or from other members of the project team copied on that email.

- August 28, 2014 discussion with ZQ representatives during site visit to Tax Parcel #4-A-44A:
  - In conversation with Mr. Peter Kaya and Mr. Ray Miles of Zenith Quest, the issue of firearms testing was brought up by these ZQ representatives.
  - In response, County staff and Planning Commissioners Proulx and Harman briefly asked questions about this "testing" element of the proposed operation. No detailed information or plans were provided by ZQ representatives in response to these brief questions; and no determinative information or guidance was given to the ZQ representatives by County representatives.
  - After this pre-application courtesy site visit, the "testing" issue was not an item of discussion or correspondence until the initial Planning Commission review.

- October 22, 2014 PC review of Major Site Plan #2014-005:
  - Mr. Ray Miles of Zenith Quest spoke to the issues of "manufacturing" and "testing" the weapons which would be modified or re-assembled at the proposed facility. He indicated that any required testing would occur indoors within specialized spaces that would be designed to minimize or eliminate sound.
  - The following information is taken from the approved meeting minutes:
    - *"Mr. Miles then explained that part of ZQI's existing business involves distribution and sales of firearms, specifically small arms. He explained that ZQI will be involved with light assembly, disassembly, and reassembly of small arms. Mr. Miles noted that, if required, any testing facilities for these modified firearms would be entirely enclosed within the warehouse, and would be constructed according to specifications that are designed to minimize or eliminate all noise."*
  - Following Mr. Miles' presentation, the PC did not follow up on the permissibility of the proposed uses and structures as being an issue requiring further review or determination.
  - Towards the end of the PC review process, the Zenith Quest applicants requested that the review of the Major Site Plan be postponed in order for revised plans to be drawn.

- Revisions to Major Site Plan #2014-005 (October 2014 – January 2015):
  - During the three month revision process, the issue of "testing" was not brought up by

Planning Commissioners or by Zenith Quest.
    - The focus of the revisions and subsequent review was more primarily oriented towards issues involving aesthetics (landscaping, screening, and lighting) and public safety (perceived concerns about hazardous materials and secondary emergency access).

- January 28, 2015 PC review of the re-submitted revised plans:
    - The Planning Commission reviewed multiple details of the site plan and proposed operations, including:
        - landscaping and screening
        - signage and exterior lighting
        - site security and perimeter fencing
        - secondary emergency access
        - "hazardous materials" precautions and preparedness
    - There was no discussion of firearms modification, assembly, or testing.
    - The Planning Commission voted 5-1 to provide conditional approval.

- Applicant response(s) to PC conditional approval (February – March 2015):
    - Applicants responded to the four conditions as follows:
        - Submitted a revised landscaping plan, approved by the Zoning Administrator;
        - Specified a green (non-reflective) roof and tan walls from Harman Buildings;
        - Caused information to be submitted to the County regarding secondary emergency access; and
        - Secured project approvals from multiple agencies (VA DEQ, TJSWCD, VDH)

- March 25, 2015 PC review:
    - PC reviewed materials that were submitted to the County on behalf of the Zenith Quest applicant team, and voted to accept materials and approve Site Plan.

- March 26, 2015 Site Plan approval signature:
    - Zoning Administrator provided final site plan approval signatures.

Summary:

In conclusion, please contact Department staff with any questions you may have regarding this staff report, the attached materials, or the petitioners' claim and requests as contained in Zoning Appeal #2015-03. Thank you.

Stormy Hopkins

From: Justin Shimp <justin@shimp-engineering.com>
Sent: Sunday, June 14, 2015 3:43 PM
To: Tim Padalino
Cc: Stormy Hopkins
Subject: M2 Zoning Determination Appeal, updated paperwork.
Attachments: M2 Zoning Appeal Letter 6-14-15.pdf; ATT00003.htm; M2 district determination appeal 6-14-15.pdf; ATT00004.htm

Hello Tim,

As discussed I have attached an update petition signed by myself and two additional land owners. I want to address the standing question, and make a couple points about these additional owners and why I have increased the petitioned properties to other lands also zoned M-2 in addition to the Zenith Quest parcel.

The determination you made was addressed to Ray Miles but was not specific to their parcel but rather specific to the M-2 Zoning District. As such any person directly adjacent or across the street from an M-2 zoned property would have standing to be aggrieved. That is the case of both Ms. Schroeder and Mr. and Mrs. Koon. Related to my standing, the past court decisions do not address the specific question of a use being permitted on a non-adjacent parcel that can be proven to have a financial impact to a neighboring property. One of the cases quoted by Mr. Payne, *Virginia Beach Beautification,* speaks to the fact that an organization pushing a public agenda cannot be aggrieved because they did own real property and thus could not be financially impacted. I do own real property that I have invested over $100,000 above and beyond the purchase price and I intend to invest more. It is not reasonable to suggest that I do not have an immediate, pecuniary and substantial interest in the County correctly applying the zoning ordinances in my own neighborhood when the proposed use in question is the gateway to my neighborhood. Such a use in close proximity of my property changes the character of the area. A resident of Wintergreen would not have standing as the character of their neighborhood is still a resort, not the second left after the sound of gunfire which is what I am facing.

The petition now list properties owned by Advancing Native Missions and Veritas Works, LLC. These properties are also zoned M-2 according to the County GIS map and are directly adjacent or directly across the street from the other petitioners. If your ruling on the uses of both the manufacturing and testing of firearms is not reversed, the other petitioners risk the same use being built directly adjacent to them.

I would also note that Ms. Schroeder can see the Zenith Quest Parcel and would no doubt be able to hear activities on the parcel due to the close proximity. Her lot is approximately 230' from the Zenith Quest parcel.

Lastly, In your determination you noted that the testing of firearms was permissible as an accessory use provided that it be constructed in a interior space have materials and or is constructed in a way to mitigate the sounds associated with the use. While I appreciate your desire to protect the adjoining properties from this use I am afraid that conditions cannot be applied to a determination. It is either permissible or not. I do not believe there is any legal requirement for the owner of the firing range to provide any specialized materials to mitigate sounds/etc. based upon your determination. They may wish to do so, but they would be under no obligation to do so. The type of conditions you suggest are completely appropriate with a special use permit, which is what should be required for this use. I hope that will read the concerns of the neighborhood and understand our position here. Letting such intense uses go by-right when they are not expressly authorized by the zoning ordinance is not legal, is not consistent with the intent of the zoning ordinance or consistent with good land planning practices.

I will encourage the Board of Zoning Appeals to reverse this decision, and uphold the letter of the ordinance as it relates to both the manufacturing and testing of weapons and the fact that accessory uses are not permitted in the M-2 district. Zenith Quest would be free to initiate a Zoning Text Amendment that could include assembly of composites of plastic and steel, address the accessory use issue and request that the Board of Supervisors either add by-right or by special use permit the indoor firing range that is uniquely associated with the manufacture of firearms. Were such an amendment approved this issue would be resolved.

Please forward this email to the Members of the Board of Zoning Appeals when you forward the attached appeals.

I appreciate your assistance and patience in dealing with me on these matters, I am sure that I am creating additional work for you, but I am not going to sit quietly while the character of the neighborhood and the value of my land is permanently and irreparable damaged.

Thanks,

-Justin

Variance # _____

PETITION FOR APPEAL TO THE BOARD OF ZONING APPEALS
Nelson County, Virginia

1. PETITIONER(S):

Name:	Justin Shimp	Ray and Nellie Kroon	Vanessa Schroeder
Address:	148 timberland Dr. Afton VA 22920	278 Afton mountain Road Afton VA 22920	33 Afton mountain Rd Afton VA 22920

2. PROPERTY OWNER(S):

Name:	Kaya Properties, LLC	Veritas Works LLC	Advancing Native missions
Address:	675 peter jefferson Parkway Charlottesville VA 22911	151 Veritas Lane Afton VA 22920	10460 Critter Shop Rd Afton VA 22920

3. TYPE OF APPEAL (CHECK ONE):

☐ **VARIANCE TO SECTION _____ OF THE ZONING ORDINANCE**
☐ **INTERPRETATION OF SECTION _____ OF THE ZONING ORDINANCE**
☒ **OTHER _____(SPECIFY) (IF "OTHER", DO NOT ANSWER QUESTION #5)**

Explanation and description of reason(s) for appeal: Appeal of Zoning Administrator Decision Regarding an Approved use.

4. LOCATION AND CHARACTERISTICS OF ANY PROPERTY INVOLVED WITH APPEAL:

a. Address of property: N/A
b. Subdivision: N/A
c. Official tax map number: 4 A 44A (Kaya), 4-A-29A (Adv. Nativemissions), 4A-3-109 (Veritas)
d. Acreage of property: 10 Ac, 7.63, 0.99
e. Present use: Vacant, warehouse, Warehouse
f. Present zoning classification: M-2 Industrial
g. Zoning classification of surrounding properties: R1, A1

5. Will the appeal, if granted, have any effect on present or future street right-of-ways, setbacks, and other improvement plans? (Refer to the County, Nelson County Service Authority, Virginia Department of Transportation - Amherst Office, if applicable.) If yes, give explanation.

N/A

6. The Code of Virginia (Sec. 15.2 - 2309) and State case law contain specific requirements for the granting of a variance. Variance requests issued for reasons not related to these criteria constitute an invalid application of Board authority. The fact that the Board feels it is doing "justice", the request is considered necessary and essential by the applicant for personal, health, or other reasons, or the request is not opposed by nearby property owners does not, when standing alone, constitute valid reasons for the granting of a variance. The State Code requires that no variance shall be authorized unless the Board finds:

a. The strict application of the ordinance would produce undue hardship.

b. The hardship is not generally shared by other properties in the same zoning district and the same vicinity, i.e. the zoning requirement from which the variance is sought would not similarly restrict other properties which are zoned the same as the subject property.

c. The authorization of the requested variance would not be a detriment to adjacent properties nor would the character of the zoning district be changed, if granted, i.e., the request would not reduce the amount of protection generally provided between adjoining properties under the existing Zoning Ordinance or would not permit a use or development which would be permitted if the property were rezoned to another zoning classification.

d. The condition of the property or the proposed use is not of such a recurring nature in the community as to make the adoption of a general Zoning Ordinance amendment practical which would otherwise permit the proposed use by right, i.e., the variance would not have the effect of resolving recurring zoning problems shared generally by other property owners in the same district or vicinity.

e. Approval of this and other similar requests would not have the effect of ultimately nullifying the zoning restriction.

f. Financial loss is not the only hardship that would be inflicted by the Zoning Ordinance requirement but is a factor to be considered.

g. The hardship is not self-inflicted in any manner.

The granting of the requested variance would alleviate a clearly demonstrable hardship approaching confiscation as distinguished from a special privilege or convenience.

Identify and explain the hardship involved: N/A

Under State law, applicants must show how their request meets the following criteria for the granting of a variance:

a. The exceptional narrowness, shallowness, size or shape of the property, its topographic conditions, or other extraordinary conditions of the property, or use of immediately adjacent property effectively prohibit or unreasonably restrict the use of such property in a manner consistent with Zoning Ordinance requirements.

Identify any such special physical conditions associated with the property or adjacent property that justify the granting of a variance: N/A

7. AFFIDAVIT:

The undersigned petitioner certifies that this petition and the foregoing answers, statements, and other information herewith submitted are, in all respects, true and correct to the best of their knowledge and belief. Also, the petitioner gives permission for members of the Board of Zoning Appeals and County Staff to visit and view the subject property.

Signature: [signature] Date 6/12/15

Mailing Address: 42 Hollow Creek Dr. Harrison Hwy. VA 22801

Justin Shimp
148 Tanbark Dr.
Afton VA 22920

[signature]

*Variance #*_____

Telephone Number(s):_____

8. AFFIDAVIT PROPERTY OWNERS: (If not petitioner[s])

The undersigned property owner(s) has authorized the submission of this Petition:

_____

_____

_____

_____

TO BE COMPLETED BY BOARD OF ZONING APPEALS STAFF

Completed application and $_____ fee received on _____. Public Hearing notice published on _____ and _____ for hearing on _____.

Date of Decision: _____ Decision: _____

_____

_____

_____

June 12th, 2015

Nelson County Board of Zoning Appeals

C/O Mr. Tim Padalino
Zoning Administrator
Nelson County, Virginia
P.O. Box 558
Lovingston VA, 22949

(Delivered by Hand and by E-mail)

Dear Members of the Board of Zoning Appeals:

On May 15th, 2015 the Zoning Administrator issued a determination stating that the proposed interior testing of modified and/or assembled firearms is permissible in the M-2 district per the Zoning Ordinance. In making his determination, the Zoning Administrator stated:

The answer is that the proposed use would be limited to a permissible accessory use; but only if it is used for internal/staff use only, and used only in connection with quality assurance/quality control and product testing. The proposed use would also be permissible only in an interior space having specialized materials and/or construction methods that effectively and properly mitigate the sounds associated with product testing.

And although this next comment addresses something that isn't part of your proposed plans, I am obligated to clarify that any such "firearms testing" room/feature must not be open to the public or otherwise be used as a firing range or target practice. And I must re-emphasize that the proposed use is permissible only as an accessory use for the purposes of product testing (see above).

There are several errors within the statements of the Zoning Administrator, which are outlined below:

The determination by the Zoning Administrator appears to imply that light manufacturing of weapons is an allowed use in the M-2 zoning district. Upon detailed review of the inclusive list of allowable uses by-right in the M-2 zoning district there is no mention of fire arms assembly as part of a "light manufacturing process".

9-1-1 permits assembly of electrical components, which do not include firearms.
9-1-4 permits fabrication of metal products. Firearms are generally a composite product and their assembly is not fabrication.
9-1-6 permits food and household related manufacturing.
9-1-7a most closely describes the desired use. However, firearms are a composite product of plastics and steel, a metal that is not precious or semi-precious. The specific manufacture of composites and non-precious metals and plastics is not permitted under section 9-1-7a.

Therefore as a first matter of business, I respectfully request the Board of Zoning Appeals clarify that assembly of firearms is not a permitted use in the M-2 zone as none

of the specific zoning classifications permit the assembly of weapons or merchandise assembled from a combination of non-precious metals and plastics which are the fundamental components of firearms.

Secondly, the Zoning Administrator states that testing of firearms is permitted as an accessory use to the assumed permitted use of assembly of weapons. This too is incorrect.

An accessory use, as outlined by the zoning ordinance is one that is *"A subordinate use or building customarily incidental to and located upon the same lot occupied by the main use or building."* The use in question is no doubt located on the same lot, and is described to be within the same building as the manufacturing. The key words to consider are then subordinate, customarily and incidental to the allowed use, which appears to be considered as manufacturing or assembly.

Accessory uses are established to permit common uses that are typically associated with a permitted use. Good examples of a permitted use in an assembly or manufacturing process would be a paint booth, or loading dock. These uses by themselves might not be permitted as a stand-alone use, but are ordinary and customarily incidental to many, if not most, manufacturing or assembly processes. A shooting range, which is the proposed "accessory use," is not ordinarily or customarily associated with manufacturing or assembly. It is **uniquely** associated with only one specific use which is the assembly of firearms which is not expressly permitted in the zoning ordinance to begin with.

An accessory use should also be subordinate, that is a smaller or less impactful or important use compared to the primary use. While the potential impacts of a shooting range to the adjoining properties needs no further explanation, it is particularly telling that in approving the accessory use the Zoning Administrator felt the need to spell out very specific conditions to its use. These conditions as described are not those applied to the primary use. The Zoning Administrator's felt it necessary to suggest specific conditions such as:

"The proposed use would also be permissible only in an interior space having specialized materials and/or construction methods that effectively and properly mitigate the sounds associated with product testing."

The need for these conditions clearly dictates that the accessory use of firearms testing is not subordinate to assembly and is the use with higher potential impacts to adjoining properties. There is a clear concern that the noise and safety impacts of the proposed accessory use is greater than that of the primary use that the shooting range is accessory to. In recognizing the potential detriments to adjoining properties, the Zoning Administrator should have recognized that such a use is not subordinate, ordinary or incidental to uses allowed by-right in the district and should not have approved it as an accessory use.

I respectfully request that the Board of Zoning Appeals reverse this approval and affirm the testing of firearms is not an accessory use.

Lastly, and most simply, is a fundamental error in the statement of the Zoning Administrator that an accessory use of any kind is permitted in the M-2 zoning district. Article 9 of the Zoning Ordinance, the M-2 Zoning District, does not permit accessory uses. Simply put, a use not specifically defined in sections 9-1-1 thru 9-1-29 is not permitted by-right in the district, even if that use were determined to be ordinarily incidental and subordinate to some permitted use.

The Zoning Administrator erred in making the determination for a variety of reasons as outlined above. The simplest error of them all was not confirming that accessory uses are permitted by right in the applicable zoning district. As such, I again respectfully request that the Board of Zoning Appeals reverse the decision of the Zoning Administrator.

This appeal is presented by Justin Shimp, P.E and joined by the following neighbors of the property subject to the zoning determination:

Signature	Date	Printed Name	Address
Justin Shimp, P.E.	6/14/15		148 Tanbark Dr. Afton VA, 22920
Ray Nellie Koon	6/14/15	RAY + NELLIE KOON	278 AFTON MTN RD AFTON, VA. 22920
Vanessa Schroeder	6-14-15	Vanessa Schroeder	33 Afton Mtn Rd Afton, VA 22920

Signature Date Printed Name Address

Signature Date Printed Name Address

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

June 22, 2015

Dear Property Owner:

The following petition has been made to the Nelson County Board of Zoning Appeals (BZA), regarding a tract of land adjacent to or near property you own in Nelson County:

Zoning Appeal #2015-03 / Mr. Justin Shimp, Mr. Ray & Mrs. Nellie Koon, and Ms. Vanessa Schroeder

Consideration of a petition submitted by Mr. Justin Shimp, Mr. Ray and Mrs. Nellie Koon, and Ms. Vanessa Schroeder (dated June 14, 2015) seeking to appeal and reverse the Zoning Administrator's zoning determination dated May 15, 2015. The petitions states that, "there are several errors within the statements of the Zoning Administrator," and that "[t]he Zoning Administrator erred in making the determination for a variety of reasons."

Specifically, the petitioners are appealing the following actions of the Zoning Administrator: the implied determination that the proposed assembly, modification, and light manufacturing of firearms is a permissible primary use in the Industrial (M-2) zoning district; the determination that the proposed interior testing of modified and/or assembled firearms is permissible in the Industrial (M-2) zoning district as a permissible accessory use to the assumed permissible primary use of wholesale business, storage warehouse, and assembly, modification, and light manufacturing of firearms; and the determination that an accessory use of any kind is permissible in the Industrial (M-2) zoning district.

The petition specifically requests that the BZA reverse the decision of the Zoning Administrator and find the following: that the assembly of firearms is not a permissible primary use in the Industrial (M-2) zoning district; that the testing of firearms is not permissible as an accessory use in the Industrial (M-2) zoning district; and that the Industrial (M-2) zoning district does not provide or allow for any accessory uses.

This application will be considered by the Nelson County Board of Zoning Appeals on Monday, July 6, 2015 at 7:30 P.M. in the General District Courtroom on the third floor of the County Courthouse, Lovingston.

As required by law, this notice is provided to inform adjoining property owners of this request. If you wish to learn more about this request and/or submit comments, you may contact and/or visit the Department of Planning & Zoning, and/or attend the meeting. Please contact staff with any questions and/or requests for assistance.

(over)

Sincerely,

Timothy M. Padalino
Director of Planning & Zoning

TMP/svh

Copy to: Mr. Justin Shimp
Mr. Ray and Mrs. Nellie Koon
Ms. Vanessa Schroeder
Kaya Properties, LLC
Mr. Ray Miles
Veritas Works LLC
Advancing Native Missions

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

June 23, 2015

To:

Mr. Justin Shimp (Petitioner): 148 Tanbark Drive, Afton, VA, 22920
Mr. Ray & Mrs. Nellie Koon (Petitioners): 278 Afton Mountain Road, Afton, VA 22920
Ms. Vanessa Schroeder (Petitioner): 33 Afton Mountain Road, Afton, VA, 22920

Kaya Properties, LLC: 675 Peter Jefferson Parkway, Charlottesville, VA, 22911
Veritas Works, LLC: 151 Veritas Lane, Afton, VA, 22920
Advancing Native Missions: 10460 Critzer Shop Road, Afton, VA, 22920

Zenith Quest International: 10950 Rockfish Valley Highway, Suite B, Afton, VA 22920

From: Tim Padalino, Nelson County Planning Director and Zoning Administrator

RE: Nelson County Board of Zoning Appeals – Appeal #2015-03

Dear Mr. Shimp, Mr. & Mrs. Koon, Ms. Schroeder, and representatives of Kaya Properties, LLC, Veritas Works, LLC, Advancing Native Missions, and Zenith Quest International –

Greetings from Lovingston. Please be advised that the Nelson County Department of Planning & Zoning has received a "Petition for Appeal to the Board of Zoning Appeals" regarding the interpretation and enforcement of the Nelson County Zoning Ordinance. Specifically, Appeal #2015-03 seeks to appeal the Zoning Administrator's May 15th decision regarding permissible uses in the Industrial (M-2) zoning district.

You are being notified of this pending appeal because you have been listed on the petition, either as a petitioner or as an interested party. Please see the enclosed appeal paperwork submitted on June 12th, 2015 and the enclosed Legal Notice of Public Hearing for more detailed information.

(over)

The Nelson County Board of Zoning Appeals is scheduled to review Appeal #2015-03 at a public hearing on Monday, July 6th, 2015 beginning at 7:30 PM in the General District Courtroom in the Nelson County Courthouse in Lovingston, Virginia, 22949.

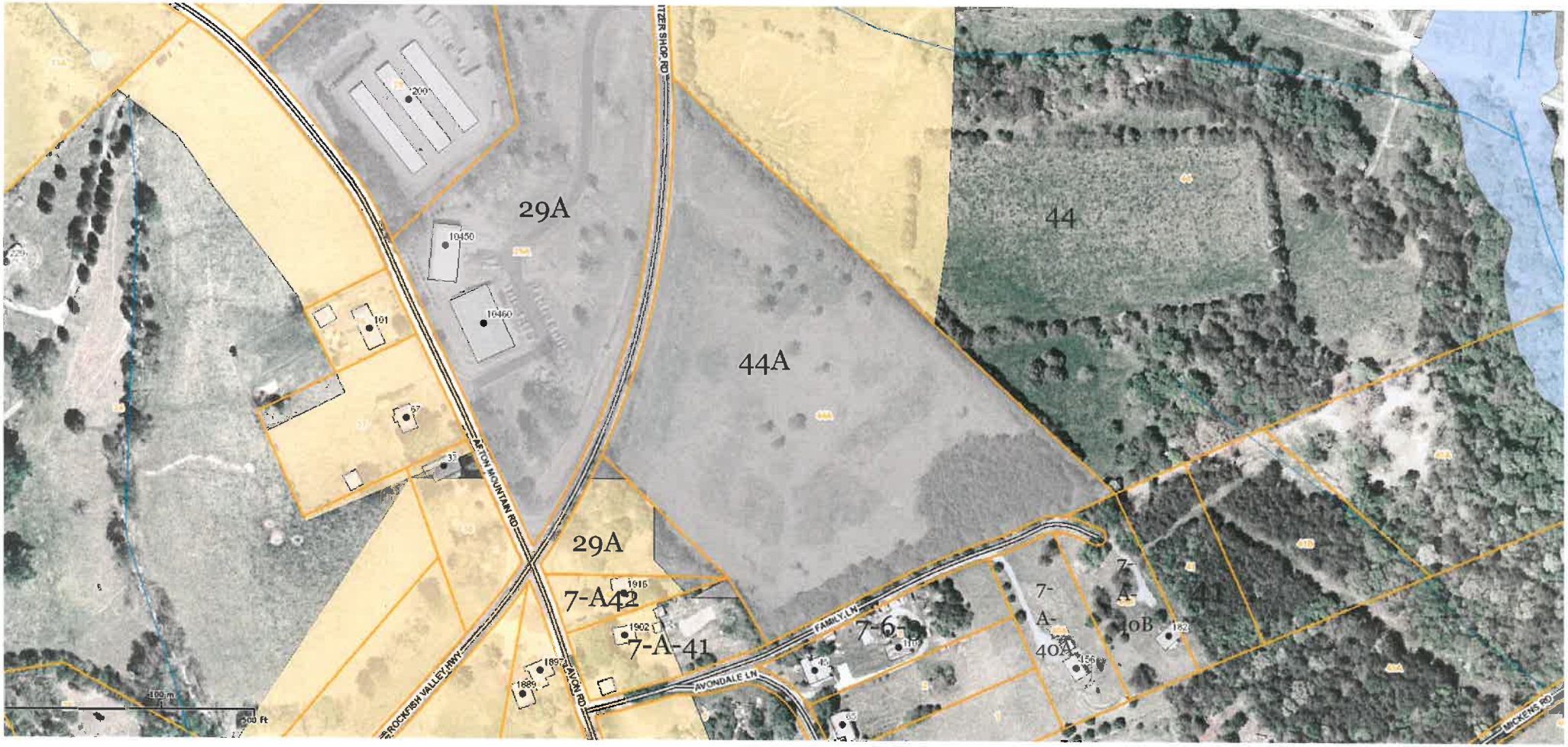
If you have questions regarding this matter, or if you have any requests for assistance, please feel free to contact the Department of Planning & Zoning at any time.

Thank you very much. Sincerely,

Tim Padalino

Nelson County Planning & Zoning Director

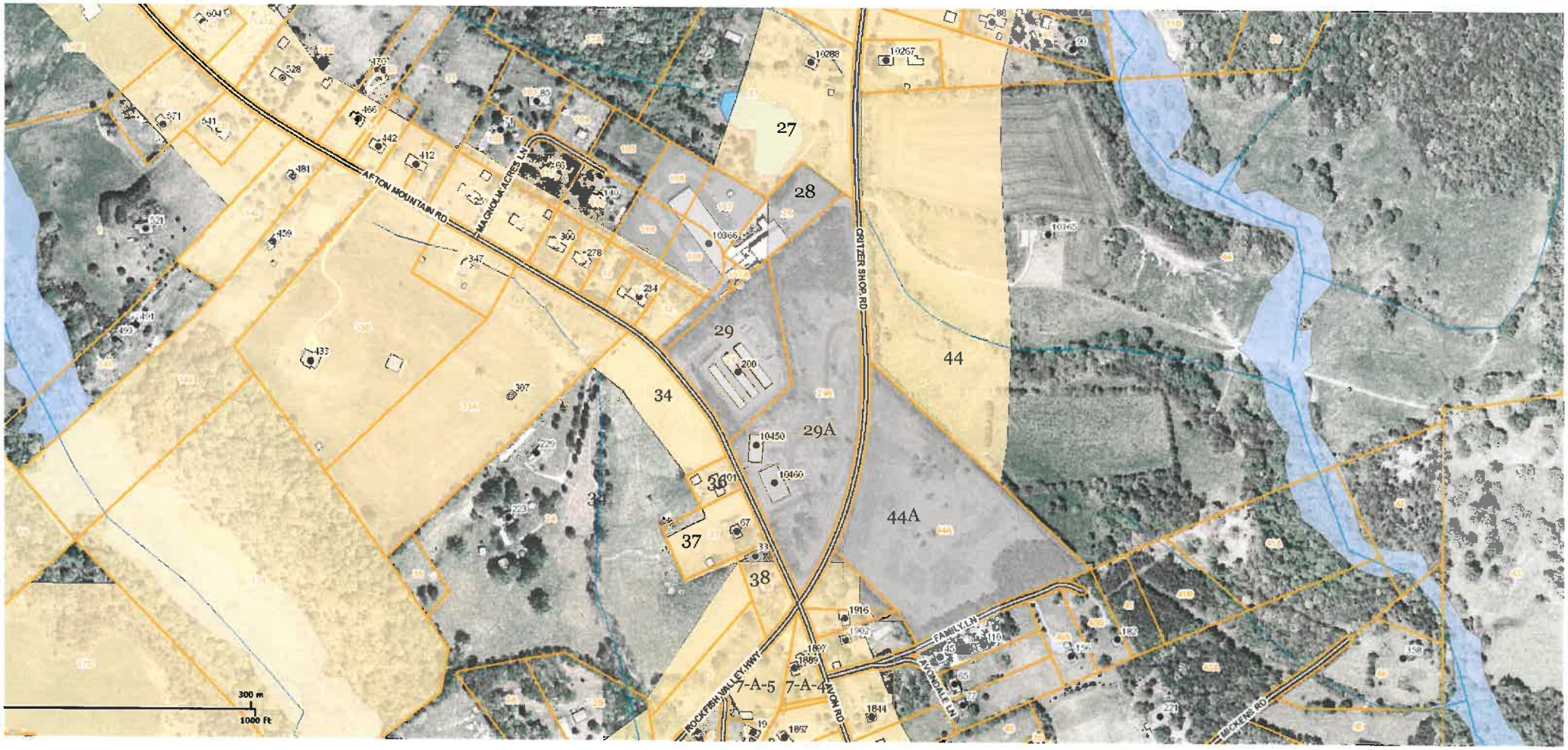
(434)-263-7090 | tpadalino@nelsoncounty.org



Parcel ID	Parcel Address	Owner Name
4-A-44A		ZENITH QUEST INTERNATIONAL LLC (KAYA PROPERTIES LLC)

Adjoining Property Owners:

4-A -41		DURRETTE, ERNEST D
7-A-40A	156 FAMILY LANE	MYERS, AUGUSTINE A
7-A-40B	182 FAMILY LANE	HARRIS, SHARON
4-A-29A	10460 CRITZER SHOP ROAD	ADVANCING NATIVE MISSIONS
4-A-44	10365 CRITZER SHOP ROAD	MOUNT ARMOUR LLC
7-A-41 & 7-A-42	1902/1916 AVON ROAD	MCCAULEY, HAROLD BRADFORD
7-6-3	110 FAMILY LANE	CARPENTER, ALVIN J

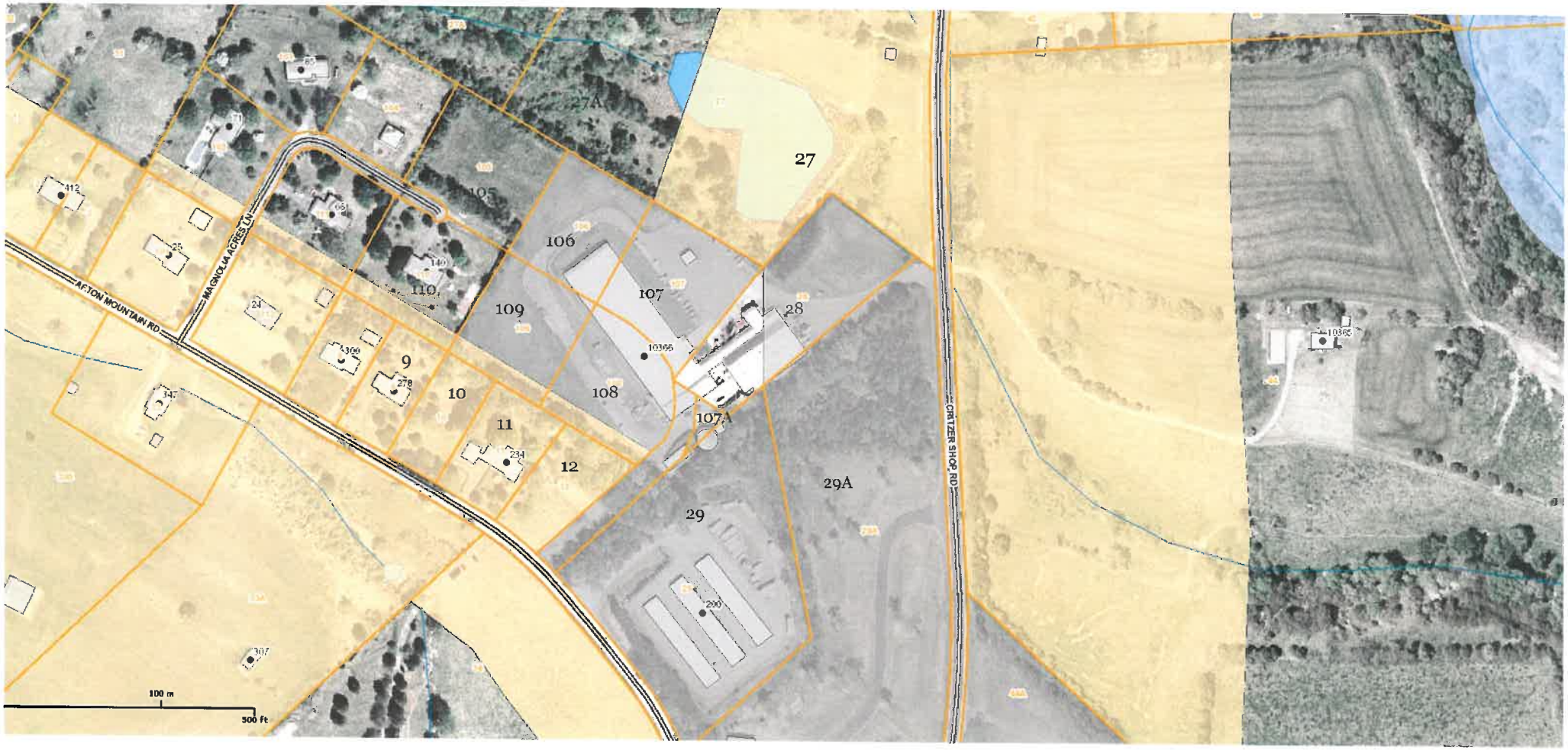


SUBJECT PROPERTY:

Parcel ID	Parcel Address	Owner Name
4-A-29A	10460 CRITZER SHOP ROAD	ADVANCING NATIVE MISSIONS

ADJOINING PROPERTY OWNER(S):

4-A-29	200 AFTON MOUNTAIN RD	AFTON COMMERICAL PROPERTIES LLC
4-A -28		VERITAS WORKS LLC
4-A-27	10288 CRITZER SHOP ROAD	TANCYUS LAUREN ELISABETH & PATRICIA A.
4-A-34	223 AFTON MOUNTAIN ROAD	BROWN JOSEPHINE T
4-A-36	101 AFTON MOUNTAIN ROAD	ASHLEY RAY LEE & NINA Q
4-A-37	67 AFTON MOUNTAIN ROAD	SMALL DONNA M
4-A-38	33 AFTON MOUNTAIN ROAD	SCHROEDER VANESSA
7-A-4	1889 AVON ROAD	BRUGUIERE CURTIS & CAROLYN B
7-A-5	19 POPPY LANE	LENAHAN ALVIN L
4-A-44A		KAYA PROPERTIES LLC
4-A-44	10365 CRITZER SHOP ROAD	MOUNT ARMOUR LLC



SUBJECT PROPERTY(S):

Parcel ID	Owner Name
4-A-28; 4A-3-105; 4A-3-106; 4A-3-107; 4A-3-107A; 4A-3-108; 4A-3-109	VERITAS WORKS LLC

ADJOINING PROPERTY OWNER(S):

Parcel ID	Parcel Address	Owner Name
4-A-29	200 AFTON MOUNTAIN RD	AFTON COMMERICAL PROPERTIES LLC
4-A-27	10288 CRITZER SHOP ROAD	TANCYUS LAUREN ELISABETH & PATRICIA A
4-A-29A	10460 CRITZER SHOP ROAD	ADVANCING NATIVE MISSIONS
4A-2-11; 4A-2-12	234 AFTON MOUNTAIN ROAD	MCCUE C PURCELL III & VICKEY A
4A-3-110	140 MAGNOLIA ACRES LANE	ROSENTHAL MARK & SUZANN
4A-2-9; 4A-2-10	278 AFTON MOUNTAIN ROAD	KOON RAY W & NELLIE C

APPEAL
~~Variance~~ # 2019-03

PETITION FOR APPEAL TO THE BOARD OF ZONING APPEALS
Nelson County, Virginia

1. PETITIONER(S):

Name: Justin Shimp	Ray and Nollie Keen	Vanessa Schroeder
Address: 148 timberd pr. Afton VA 22920	278 Afton mountain Road Afton VA 22920	33 Afton mountain Rd Afton VA 22920

2. PROPERTY OWNER(S):

Name: Kaya Properties, LLC	Veritas Works LLC	Advancing Native missions
Address: 675 peter jefferson Parkway Charlottesville VA 22911	151 Veritas Lane Afton VA 22920	10460 Critter Shop Rd. Afton VA 22920

3. TYPE OF APPEAL (CHECK ONE):

☐ **VARIANCE TO SECTION _____ OF THE ZONING ORDINANCE**
☐ **INTERPRETATION OF SECTION _____ OF THE ZONING ORDINANCE**
☒ **OTHER _____(SPECIFY) (IF "OTHER", DO NOT ANSWER QUESTION #5)**

Explanation and description of reason(s) for appeal: Appeal of Zoning Administrator Decision Regarding an Approved use.

4. LOCATION AND CHARACTERISTICS OF ANY PROPERTY INVOLVED WITH APPEAL:

a. Address of property: N/A
b. Subdivision: N/A
c. Official tax map number: 4 A 44A (Kaya), 4-A-29A (Adv. Nativemissions), 4A-3-109 (Veritas)
d. Acreage of property: 10 Ac, 7.63, 0.99
e. Present use: Vacant, Warehouse, Warehouse
f. Present zoning classification: M-2 Industrial
g. Zoning classification of surrounding properties: R1, A1

5. Will the appeal, if granted, have any effect on present or future street right-of-ways, setbacks, and other improvement plans? (Refer to the County, Nelson County Service Authority, Virginia Department of Transportation - Amherst Office, if applicable.) If yes, give explanation.

N/A

6. The Code of Virginia (Sec. 15.2 - 2309) and State case law contain specific requirements for the granting of a variance. Variance requests issued for reasons not related to these criteria constitute an invalid application of Board authority. The fact that the Board feels it is doing "justice", the request is considered necessary and essential by the applicant for personal, health, or other reasons. or the request is not opposed by nearby property owners does not, when standing alone, constitute valid reasons for the granting of a variance. The State Code requires that no variance shall be authorized unless the Board finds:

a. The strict application of the ordinance would produce undue hardship.

b. The hardship is not generally shared by other properties in the same zoning district and the same vicinity, i.e. the zoning requirement from which the variance is sought would not similarly restrict other properties which are zoned the same as the subject property.

c. The authorization of the requested variance would not be a detriment to adjacent properties nor would the character of the zoning district be changed, if granted, i.e., the request would not reduce the amount of protection generally provided between adjoining properties under the existing Zoning Ordinance or would not permit a use or development which would be permitted if the property were rezoned to another zoning classification.

d. The condition of the property or the proposed use is not of such a recurring nature in the community as to make the adoption of a general Zoning Ordinance amendment practical which would otherwise permit the proposed use by right, i.e., the variance would not have the effect of resolving recurring zoning problems shared generally by other property owners in the same district or vicinity.

e. Approval of this and other similar requests would not have the effect of ultimately nullifying the zoning restriction.

f. Financial loss is not the only hardship that would be inflicted by the Zoning Ordinance requirement but is a factor to be considered.

g. The hardship is not self-inflicted in any manner.

The granting of the requested variance would alleviate a clearly demonstrable hardship approaching confiscation as distinguished from a special privilege or convenience.

Identify and explain the hardship involved: N/A

Under State law, applicants must show how their request meets the following criteria for the granting of a variance:

a. The exceptional narrowness, shallowness, size or shape of the property, its topographic conditions, or other extraordinary conditions of the property, or use of immediately adjacent property effectively prohibit or unreasonably restrict the use of such property in a manner consistent with Zoning Ordinance requirements.

Identify any such special physical conditions associated with the property or adjacent property that justify the granting of a variance: N/A

7. AFFIDAVIT:

The undersigned petitioner certifies that this petition and the foregoing answers, statements, and other information herewith submitted are, in all respects, true and correct to the best of their knowledge and belief. Also, the petitioner gives permission for members of the Board of Zoning Appeals and County Staff to visit and view the subject property.

Signature: [signature] Date 6/12/15

Mailing Address: 42 Nelson Price Dr. Harrison Hwy. VA 22801

Justin Shimp
148 Timbark Dr.
Afton VA 22920

[signature]

*Variance #*_____

Telephone Number(s):_____

8. AFFIDAVIT PROPERTY OWNERS: (If not petitioner[s])

The undersigned property owner(s) has authorized the submission of this Petition:

_____

_____

_____

_____

TO BE COMPLETED BY BOARD OF ZONING APPEALS STAFF

Completed application and $_____ fee received on _____. Public Hearing notice published on _____ and _____ for hearing on _____.

Date of Decision: _____ Decision: _____

_____

_____

_____

June 12th, 2015

Nelson County Board of Zoning Appeals

C/O Mr. Tim Padalino
Zoning Administrator
Nelson County, Virginia
P.O. Box 558
Lovingston VA, 22949

(Delivered by Hand and by E-mail)

Dear Members of the Board of Zoning Appeals:

On May 15th, 2015 the Zoning Administrator issued a determination stating that the proposed interior testing of modified and/or assembled firearms is permissible in the M-2 district per the Zoning Ordinance. In making his determination, the Zoning Administrator stated:

The answer is that the proposed use would be limited to a permissible accessory use; but only if it is used for internal/staff use only, and used only in connection with quality assurance/quality control and product testing. The proposed use would also be permissible only in an interior space having specialized materials and/or construction methods that effectively and properly mitigate the sounds associated with product testing.

And although this next comment addresses something that isn't part of your proposed plans, I am obligated to clarify that any such "firearms testing" room/feature must not be open to the public or otherwise be used as a firing range or target practice. And I must re-emphasize that the proposed use is permissible only as an accessory use for the purposes of product testing (see above).

There are several errors within the statements of the Zoning Administrator, which are outlined below:

The determination by the Zoning Administrator appears to imply that light manufacturing of weapons is an allowed use in the M-2 zoning district. Upon detailed review of the inclusive list of allowable uses by-right in the M-2 zoning district there is no mention of fire arms assembly as part of a "light manufacturing process".

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9-1-4 permits fabrication of metal products. Firearms are generally a composite product and their assembly is not fabrication.
9-1-6 permits food and household related manufacturing.
9-1-7a most closely describes the desired use. However, firearms are a composite product of plastics and steel, a metal that is not precious or semi-precious. The specific manufacture of composites and non-precious metals and plastics is not permitted under section 9-1-7a.

Therefore as a first matter of business, I respectfully request the Board of Zoning Appeals clarify that assembly of firearms is not a permitted use in the M-2 zone as none

of the specific zoning classifications permit the assembly of weapons or merchandise assembled from a combination of non-precious metals and plastics which are the fundamental components of firearms.

Secondly, the Zoning Administrator states that testing of firearms is permitted as an accessory use to the assumed permitted use of assembly of weapons. This too is incorrect.

An accessory use, as outlined by the zoning ordinance is one that is *"A subordinate use or building customarily incidental to and located upon the same lot occupied by the main use or building."* The use in question is no doubt located on the same lot, and is described to be within the same building as the manufacturing. The key words to consider are then subordinate, customarily and incidental to the allowed use, which appears to be considered as manufacturing or assembly.

Accessory uses are established to permit common uses that are typically associated with a permitted use. Good examples of a permitted use in an assembly or manufacturing process would be a paint booth, or loading dock. These uses by themselves might not be permitted as a stand-alone use, but are ordinary and customarily incidental to many, if not most, manufacturing or assembly processes. A shooting range, which is the proposed "accessory use," is not ordinarily or customarily associated with manufacturing or assembly. It is **uniquely** associated with only one specific use which is the assembly of firearms which is not expressly permitted in the zoning ordinance to begin with.

An accessory use should also be subordinate, that is a smaller or less impactful or important use compared to the primary use. While the potential impacts of a shooting range to the adjoining properties needs no further explanation, it is particularly telling that in approving the accessory use the Zoning Administrator felt the need to spell out very specific conditions to its use. These conditions as described are not those applied to the primary use. The Zoning Administrator's felt it necessary to suggest specific conditions such as:

"The proposed use would also be permissible only in an interior space having specialized materials and/or construction methods that effectively and properly mitigate the sounds associated with product testing."

The need for these conditions clearly dictates that the accessory use of firearms testing is not subordinate to assembly and is the use with higher potential impacts to adjoining properties. There is a clear concern that the noise and safety impacts of the proposed accessory use is greater than that of the primary use that the shooting range is accessory to. In recognizing the potential detriments to adjoining properties, the Zoning Administrator should have recognized that such a use is not subordinate, ordinary or incidental to uses allowed by-right in the district and should not have approved it as an accessory use.

I respectfully request that the Board of Zoning Appeals reverse this approval and affirm the testing of firearms is not an accessory use.

Lastly, and most simply, is a fundamental error in the statement of the Zoning Administrator that an accessory use of any kind is permitted in the M-2 zoning district. Article 9 of the Zoning Ordinance, the M-2 Zoning District, does not permit accessory uses. Simply put, a use not specifically defined in sections 9-1-1 thru 9-1-29 is not permitted by-right in the district, even if that use were determined to be ordinarily incidental and subordinate to some permitted use.

The Zoning Administrator erred in making the determination for a variety of reasons as outlined above. The simplest error of them all was not confirming that accessory uses are permitted by right in the applicable zoning district. As such, I again respectfully request that the Board of Zoning Appeals reverse the decision of the Zoning Administrator.

This appeal is presented by Justin Shimp, P.E and joined by the following neighbors of the property subject to the zoning determination:

Signature	Date	Printed Name	Address
	6/14/15	Justin Shimp, P.E.	148 Tanbark Dr. Afton VA, 22920
	6/14/15	RAY + NELLIE KOON	278 AFTON MTN RD AFTON, VA. 22920
	6-14-15	Vanessa Schroeder	33 Afton Mtn Rd Afton, VA 22920

Signature Date Printed Name Address

Signature Date Printed Name Address

Stormy Hopkins

From: Justin Shimp <justin@shimp-engineering.com>
Sent: Sunday, June 14, 2015 3:43 PM
To: Tim Padalino
Cc: Stormy Hopkins
Subject: M2 Zoning Determination Appeal, updated paperwork.
Attachments: M2 Zoning Appeal Letter 6-14-15.pdf; ATT00003.htm; M2 district determination appeal 6-14-15.pdf; ATT00004.htm

Hello Tim,

As discussed I have attached an update petition signed by myself and two additional land owners. I want to address the standing question, and make a couple points about these additional owners and why I have increased the petitioned properties to other lands also zoned M-2 in addition to the Zenith Quest parcel.

The determination you made was addressed to Ray Miles but was not specific to their parcel but rather specific to the M-2 Zoning District. As such any person directly adjacent or across the street from an M-2 zoned property would have standing to be aggrieved. That is the case of both Ms. Schroeder and Mr. and Mrs. Koon. Related to my standing, the past court decisions do not address the specific question of a use being permitted on a non-adjacent parcel that can be proven to have a financial impact to a neighboring property. One of the cases quoted by Mr. Payne, *Virginia Beach Beautification,* speaks to the fact that an organization pushing a public agenda cannot be aggrieved because they did own real property and thus could not be financially impacted. I do own real property that I have invested over $100,000 above and beyond the purchase price and I intend to invest more. It is not reasonable to suggest that I do not have an immediate, pecuniary and substantial interest in the County correctly applying the zoning ordinances in my own neighborhood when the proposed use in question is the gateway to my neighborhood. Such a use in close proximity of my property changes the character of the area. A resident of Wintergreen would not have standing as the character of their neighborhood is still a resort, not the second left after the sound of gunfire which is what I am facing.

The petition now list properties owned by Advancing Native Missions and Veritas Works, LLC. These properties are also zoned M-2 according to the County GIS map and are directly adjacent or directly across the street from the other petitioners. If your ruling on the uses of both the manufacturing and testing of firearms is not reversed, the other petitioners risk the same use being built directly adjacent to them.

I would also note that Ms. Schroeder can see the Zenith Quest Parcel and would no doubt be able to hear activities on the parcel due to the close proximity. Her lot is approximately 230' from the Zenith Quest parcel.

Lastly, In your determination you noted that the testing of firearms was permissible as an accessory use provided that it be constructed in a interior space have materials and or is constructed in a way to mitigate the sounds associated with the use. While I appreciate your desire to protect the adjoining properties from this use I am afraid that conditions cannot be applied to a determination. It is either permissible or not. I do not believe there is any legal requirement for the owner of the firing range to provide any specialized materials to mitigate sounds/etc. based upon your determination. They may wish to do so, but they would be under no obligation to do so. The type of conditions you suggest are completely appropriate with a special use permit, which is what should be required for this use. I hope that will read the concerns of the neighborhood and understand our position here. Letting such intense uses go by-right when they are not expressly authorized by the zoning ordinance is not legal, is not consistent with the intent of the zoning ordinance or consistent with good land planning practices.

I will encourage the Board of Zoning Appeals to reverse this decision, and uphold the letter of the ordinance as it relates to both the manufacturing and testing of weapons and the fact that accessory uses are not permitted in the M-2 district. Zenith Quest would be free to initiate a Zoning Text Amendment that could include assembly of composites of plastic and steel, address the accessory use issue and request that the Board of Supervisors either add by-right or by special use permit the indoor firing range that is uniquely associated with the manufacture of firearms. Were such an amendment approved this issue would be resolved.

Please forward this email to the Members of the Board of Zoning Appeals when you forward the attached appeals.

I appreciate your assistance and patience in dealing with me on these matters, I am sure that I am creating additional work for you, but I am not going to sit quietly while the character of the neighborhood and the value of my land is permanently and irreparable damaged.

Thanks,

-Justin

Tim Padalino

From: Tim Padalino
Sent: Friday, May 15, 2015 4:23 PM
To: 'Ray Miles'
Subject: RE: from Ray at Zenith Quest re: possible basement

Hello Ray,

Thanks for your phone call earlier today. I'm writing to provide you guidance on your proposal to construct a basement within the warehouse, for the purpose of implementing a specialized "firearms testing" space.

First, you asked if incorporating such a room/feature into your warehouse would require an amended site plan.

The answer is no – the proposed room/feature would not increase traffic, require more parking, or otherwise affect the terms and details of the approved Major Site Plan #2014-005. Instead of any amendments to the approved site plan, you may simply address this construction detail in your building plans that you will submit when pulling a building permit.

Second, I explained that I would need to review and determine whether or not the proposed interior testing of modified and/or re-assembled firearms is permissible per the Zoning Ordinance. You specifically asked about, "**occasional firearms testing as part of the light manufacturing process.**"

The answer is that the proposed use would be limited to a permissible accessory use; but only if it is used for internal/staff use only, and used only in connection with quality assurance/quality control and product testing. The proposed use would also be permissible only in an interior space having specialized materials and/or construction methods that effectively and properly mitigate the sounds associated with product testing.

And although this next comment addresses something that isn't part of your proposed plans, I am obligated to clarify that any such "firearms testing" room/feature must not be open to the public or otherwise be used as a firing range or target practice. And I must re-emphasize that the proposed use is permissible only as an accessory use for the purposes of product testing (see above).

I hope this information is helpful and brings clarity to your project. I also want to note that it is helpful that your proposal is to voluntarily construct a basement in order to minimize any noise to the greatest extent possible.

Thanks for your patience and cooperation, Ray. Enjoy the weekend; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Tuesday, May 12, 2015 7:59 AM
To: Tim Padalino
Subject: Re: from Ray at Zenith Quest re: possible basement

Hi Tim,

Any word yet on the basement idea?

Ray

Ray Miles

ZENITH QUEST
INTERNATIONAL

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. If you are not the intended recipient, please contact the sender immediately and destroy the material in its entirety, whether electronic or hard copy. You are notified that any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited.

From: Tim Padalino <tpadalino@nelsoncounty.org>
Date: Thursday, May 7, 2015 12:20 PM
To: Kutlay Kaya <ray@zenithquestintl.com>
Subject: RE: from Ray at Zenith Quest re: possible basement

Hi Ray,

Thanks for this message, and for your followup phone call today.

I'll continue to work on this issue with appropriate County staff; we'll need to reach a formal written determination regarding the permissibility of the weapons testing (since it has only been handled in conversational format to date).

I have specifically inquired about the firearms testing being permissible as an accessory use to the permissible primary use of manufacturing (modification and assembly of firearms).

Thanks very much for your patience; I understand this determination is resulting in the design/build team being held up. I will work to coordinate with the County Attorney to reach a determination ASAP. Feel free to call back if you haven't heard back from me, but need to.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Tuesday, May 05, 2015 1:53 PM

To: Tim Padalino
Subject: from Ray at Zenith Quest re: possible basement

Hi Tim,

We spoke about this briefly when I called you yesterday.

If Zenith Quest wished to have a 36'x120'x10' (4320 sf) basement along the north end of the warehouse with exterior exits at each end, to use for the purposes already approved by the County, namely for occasional firearms testing as part of the light manufacturing process, would we need any further permission from Planning & Zoning with regard to our currently approved site plan? I know we would need to put the possible basement into any building permit plan that we would submit to the Building Inspector. Our thinking is to possibly have this space underground for sound proofing reasons, so that neighbors would not be disturbed by the sound which is something we have previously discussed during the site plan approval process.

I had mentioned that I would plan to email you today, and am seeking an answer soon as you can, since this type of basement would require quick action here on our side with regard to budgeting, decision making, planning, and so forth. If you need further info from me, please don't hesitate to call or email.

I will look for your reply. Thanks.

Ray

Ray Miles

ZQI
ZENITH QUEST
INTERNATIONAL

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

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Please publish June 18th and 25th, 2015 in the Nelson County Times.

LEGAL NOTICE
NOTICE OF PUBLIC HEARING

In accordance with Section 15.2 of the Code of Virginia, 1950, as amended, and pursuant to Sections 15.2-2285, 5.2-2310, and 15.2-2204 of the Code of Virginia, as amended, the **Nelson County Board of Zoning Appeals** hereby gives notice that a Public Hearing is scheduled for **Monday, July 6th, 2015, at 7:30 p.m.**, in the General District Courtroom on the third floor of the Nelson County Courthouse located at 84 Courthouse Square in Lovingston, for the following:

1. **Variance Request #2015-01 / Ms. Melissa Cash Tenorio**

Consideration of a request submitted by Ms. Melissa Cash Tenorio, dated June 12, 2015, for a variance pursuant to Article 14, Sections 14-2-4 of the Nelson County Zoning Ordinance. The applicant seeks a nine (9) foot variance from the Setback Regulations required in Article 4, Section 3 "Setback regulations." This application is for a 1-acre property at 866 Fox Hollow Road, in Afton, further identified as Tax Map Parcel #6-A-79.

2. **Zoning Appeal #2015-03 / Mr. Justin Shimp, Mr. Ray & Mrs. Nellie Koon, and Ms. Vanessa Schroeder**

Consideration of a petition submitted by Mr. Justin Shimp, Mr. Ray and Mrs. Nellie Koon, and Ms. Vanessa Schroeder (dated June 14, 2015) seeking to appeal and reverse the Zoning Administrator's zoning determination dated May 15, 2015. The petitions states that, "there are several errors within the statements of the Zoning Administrator," and that "[t]he Zoning Administrator erred in making the determination for a variety of reasons."

Specifically, the petitioners are appealing the Zoning Administrator's actions as follows: the implied determination that the proposed assembly, modification, and light manufacturing of firearms is a permissible primary use in the Industrial (M-2) zoning district; the determination that the proposed interior testing of modified and/or assembled firearms is permissible in the Industrial (M-2) zoning district as a permissible accessory use to the assumed permissible primary use of wholesale business, storage warehouse, and assembly, modification, and light manufacturing of firearms; and the determination that an accessory use of any kind is permissible in the Industrial (M-2) zoning district.

The petition specifically requests that the BZA reverse the decision of the Zoning Administrator and find the following: that the assembly of firearms is not a permissible primary use in the Industrial (M-2) zoning district; that the testing of firearms is not permissible as an accessory use in the Industrial (M-2) zoning district; and that the Industrial (M-2) zoning district does not provide or allow for any accessory uses.

Copies of the above files are available for review in the Nelson County Department of Planning and Zoning, located at 80 Front Street, Lovingston, Virginia, Monday through

Friday, 9:00 a.m. to 5:00 p.m. Alternately, you may call the Planning and Zoning Office at 434 263-7090 or toll free at 888-662-9400, selections 4 and 1.

Nelson County does not discriminate on the basis of handicapped status in admission or access to its programs and activities. Accommodation will be made for handicapped persons upon prior request.

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

June 23, 2015

To:

Mr. Justin Shimp (Petitioner): 148 Tanbark Drive, Afton, VA, 22920
Mr. Ray & Mrs. Nellie Koon (Petitioners): 278 Afton Mountain Road, Afton, VA 22920
Ms. Vanessa Schroeder (Petitioner): 33 Afton Mountain Road, Afton, VA, 22920

Kaya Properties, LLC: 675 Peter Jefferson Parkway, Charlottesville, VA, 22911
Veritas Works, LLC: 151 Veritas Lane, Afton, VA, 22920
Advancing Native Missions: 10460 Critzer Shop Road, Afton, VA, 22920

Zenith Quest International: 10950 Rockfish Valley Highway, Suite B, Afton, VA 22920

From: Tim Padalino, Nelson County Planning Director and Zoning Administrator

RE: Nelson County Board of Zoning Appeals – Appeal #2015-03

Dear Mr. Shimp, Mr. & Mrs. Koon, Ms. Schroeder, and representatives of Kaya Properties, LLC, Veritas Works, LLC, Advancing Native Missions, and Zenith Quest International –

Greetings from Lovingston. Please be advised that the Nelson County Department of Planning & Zoning has received a "Petition for Appeal to the Board of Zoning Appeals" regarding the interpretation and enforcement of the Nelson County Zoning Ordinance. Specifically, Appeal #2015-03 seeks to appeal the Zoning Administrator's May 15th decision regarding permissible uses in the Industrial (M-2) zoning district.

You are being notified of this pending appeal because you have been listed on the petition, either as a petitioner or as an interested party. Please see the enclosed appeal paperwork submitted on June 12th, 2015 and the enclosed Legal Notice of Public Hearing for more detailed information.

(over)

The Nelson County Board of Zoning Appeals is scheduled to review Appeal #2015-03 at a public hearing on Monday, July 6th, 2015 beginning at 7:30 PM in the General District Courtroom in the Nelson County Courthouse in Lovingston, Virginia, 22949.

If you have questions regarding this matter, or if you have any requests for assistance, please feel free to contact the Department of Planning & Zoning at any time.

Thank you very much. Sincerely,

Tim Padalino

Nelson County Planning & Zoning Director

(434)-263-7090 | tpadalino@nelsoncounty.org

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

June 22, 2015

Dear Property Owner:

The following petition has been made to the Nelson County Board of Zoning Appeals (BZA), regarding a tract of land adjacent to or near property you own in Nelson County:

Zoning Appeal #2015-03 / Mr. Justin Shimp, Mr. Ray & Mrs. Nellie Koon, and Ms. Vanessa Schroeder

Consideration of a petition submitted by Mr. Justin Shimp, Mr. Ray and Mrs. Nellie Koon, and Ms. Vanessa Schroeder (dated June 14, 2015) seeking to appeal and reverse the Zoning Administrator's zoning determination dated May 15, 2015. The petitions states that, "there are several errors within the statements of the Zoning Administrator," and that "[t]he Zoning Administrator erred in making the determination for a variety of reasons."

Specifically, the petitioners are appealing the following actions of the Zoning Administrator: the implied determination that the proposed assembly, modification, and light manufacturing of firearms is a permissible primary use in the Industrial (M-2) zoning district; the determination that the proposed interior testing of modified and/or assembled firearms is permissible in the Industrial (M-2) zoning district as a permissible accessory use to the assumed permissible primary use of wholesale business, storage warehouse, and assembly, modification, and light manufacturing of firearms; and the determination that an accessory use of any kind is permissible in the Industrial (M-2) zoning district.

The petition specifically requests that the BZA reverse the decision of the Zoning Administrator and find the following: that the assembly of firearms is not a permissible primary use in the Industrial (M-2) zoning district; that the testing of firearms is not permissible as an accessory use in the Industrial (M-2) zoning district; and that the Industrial (M-2) zoning district does not provide or allow for any accessory uses.

This application will be considered by the Nelson County Board of Zoning Appeals on Monday, July 6, 2015 at 7:30 P.M. in the General District Courtroom on the third floor of the County Courthouse, Lovingston.

As required by law, this notice is provided to inform adjoining property owners of this request. If you wish to learn more about this request and/or submit comments, you may contact and/or visit the Department of Planning & Zoning, and/or attend the meeting. Please contact staff with any questions and/or requests for assistance.

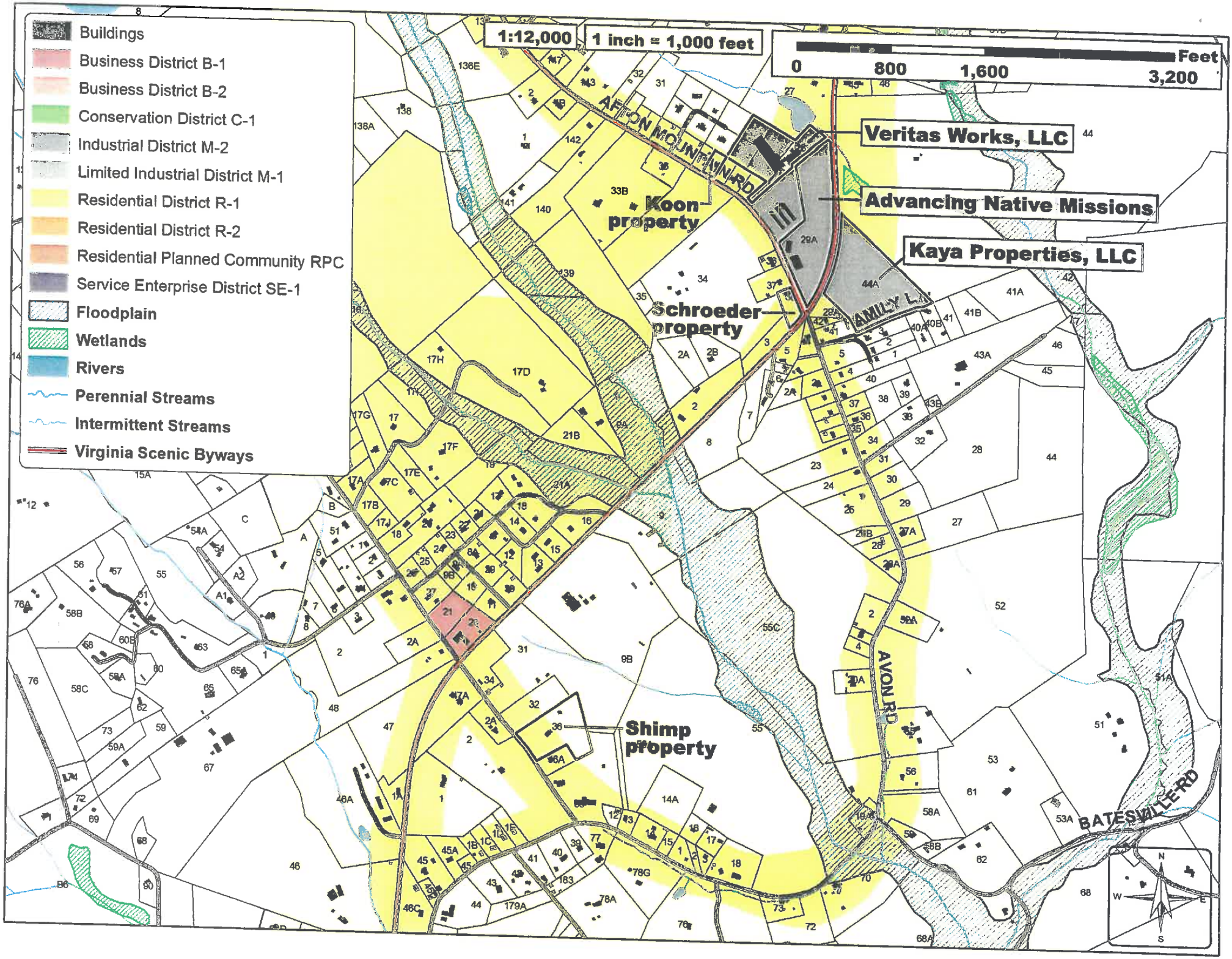
(over)

Sincerely,

Timothy M. Padalino
Director of Planning & Zoning

TMP/svh

Copy to: Mr. Justin Shimp
Mr. Ray and Mrs. Nellie Koon
Ms. Vanessa Schroeder
Kaya Properties, LLC
Mr. Ray Miles
Veritas Works LLC
Advancing Native Missions


Buildings
Business District B-1
Business District B-2
Conservation District C-1
Industrial District M-2
Limited Industrial District M-1
Residential District R-1
Residential District R-2
Residential Planned Community RPC
Service Enterprise District SE-1
Floodplain
Wetlands
Rivers
Perennial Streams
Intermittent Streams
Virginia Scenic Byways
1:12,000
1 inch = 1,000 feet
0
800
1,600
3,200
Feet
Veritas Works, LLC
Advancing Native Missions
Kaya Properties, LLC
Koon property
Schroeder property
Shimp property
AFTON MOUNTAIN RD
AVON RD
BATESVILLE RD
FAMILY LN
N
S
E
W

PPII 6/22/2015 [redacted]

→ description / language?

- notification:
  - ZBA ... ANM ... Verbs ... Shimp
    - staying the use of testing facility
    - not staying the [redacted] structure

dear six parties,
+ ZBA

3 people
appeal [illegible] at May 15th
of ZBA to BZA ... per S.C. §15.2-2312
hearing or petition for appeal ⇒ set for (date / time / place)

- "written order" / "written opinion" / "zoning determination"
  - VA Supreme Court has been extensively detailed about threshold
  - no mention of appeal
- "guidance" language

- standing
  - depends on Kroon ! SCHROEDER
  - no documented / demonstrated harm

- "accessory uses as defined"

primary uses ⟷ integral uses

accessory uses
Commonly incidental

what to do with the omission of an essential use required (support of the primary use)

- reporting:
  - all records / files by which action was taken
  - staff report + → chronology of review process
    email correspondence
    PC minutes [illegible]

SITE PLAN REVIEW COMMITTEE:
AUGUST 13, 2014
ZENITH QUEST: PRE-APPLICATION NOTES

- 80,000 SF warehouse
- 10,000 SF office
- 30 employees

turn lane requirements... !?
Key to B.L. that turn lanes are not required

HSIP project plans & construction?

- trip generation?
- distribution / truck traffic?

VDOT claims no info about commercial truck traffic...
"Breakdown Information" only includes employees
must understand P.E. - certified traffic generation report

- site plan accounts for proposed 2011 HSIP project
- does HSIP project account for this substantial land use?

- entrance design is not correct...
13' offset needed

- underground tanks for fire safety? or well? (or dry pond?)
- fire access around building?
- fire flow - water requirements? what type of well?

- Jeff: no... just beyond project limits
  minimal impacts...
  drainage may need to be addressed

- not presently... can this be re-evaluated?

- approx. 6 trips per month...
  not even enough traffic to be evaluated on a per-day basis

- M-2 heavy industrial
- R-1 residential
- A-1 agriculture & subdivision

- potential incompatibility for current residences, character of neighborhood, quality of life, night sky & rural soundscape

- operational details are lacking -
  lighting? noise? / safety? fire safety?
  (public welfare) ..... (public health & safety)

- federally-licensed firearm ~~agen~~ company

FF11-8 / ATF

- Security will be excellent
- impacts of security measures will be reviewed carefully

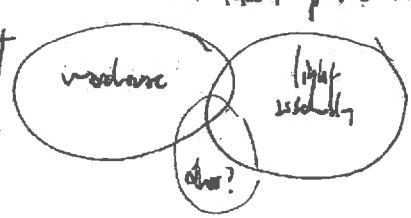
(exterior fence around entire property)
(gate system along entrance drive)

- import firearms (brand new)
- light assembly to meet U.S. regulations
  P.9-22

stone & tile & "inert cleaners"
"toxic free" cleaners

other light manufacturing opportunities we'd like to pursue in Nelson County

uses: ?



site visit: Coordinate w/ Amy & Bill

Ray Mihers Peter

Site Plan No. 2014-005

TO THE ZONING ADMINISTRATOR:

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

☐ Rezoning from _____ to _____	☐ Subdivision – Regular Preliminary
☐ Special Use Permit	☐ Subdivision – Regular Final
☐ Site Plan – Preliminary (Optional)	☐ Site Plan - Minor
☐ Site Plan – Final	☒ Site Plan - Major
☐ Amend text of Zoning Ordinance	☐ Other - _____

Pursuant to Article 13, Section 1-1.1 of the Nelson County Zoning Ordinance.
Pursuant to Section _____, Subsection _____ of the Nelson County Subdivision Ordinance.

Reason(s) for request: _____

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

☒ Applicant ☒ Property Owner Name: Zenith Quest International, LLC
Address: 522 Chinquapin Dr., Lyndhurst, VA 22952
Tel. No.: 540-943-9424 Cell No. E-mail addr. hkaya@zenithquestintl.com
Relationship (if applicable):

☐ Applicant ☐ Property Owner Name:
Address:
Tel. No.: Cell No. E-mail addr.
Relationship (if applicable):

☐ Applicant ☐ Property Owner Name:
Address:
Tel. No.: Cell No. E-mail addr.
Relationship (if applicable):

☐ Applicant ☐ Property Owner Name:
Address:
Tel. No.: Cell. No. E-mail addr.
Relationship (if applicable):
(Use reverse if more space is needed.)

3. **Location and Characteristics of Property:**
   a. Address of property including specific location, route numbers, street names, direction (NSEW), Magisterial District, etc.: Property is located approximately 500-feet north of the intersection of Afton Mountain Road (Rt. 638) and Critzer Shop Road (Rt. 151) on the eastern side of Rt. 151
   Official tax map number: 4A-44A
   b. Acreage of property: 10.00 Ac.
   c. Present use: Vacant
   d. Present zoning classification: M-2
   e. Zoning classification of surrounding properties: M-1/R-1/A-1

(Continued on reverse.)

4. **Names of Adjacent Property Owners:** TMP 4A-29A Advancing Native Missions; TMP 7A-42 and 7A-42 Harold McCauley; TMP 7-6-5 Clara McCauley; TMP 7-6-3 Alvin Carpenter; TMP 7A-40A Augusta Meyers; TMP 7A-40B Sharon Harris; TMP 4A-44 Mount Armour, LLC

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

Signature: Kaya Hanri Kaya, CFO 9/10/14

Signature: _____

Signature: _____

Signature: _____

6. **Additional information:** _____

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

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

Completed application and fee ($500.00) received on 9-19-14.

Hearing Notice published on October 1st & 8th, 2014.

Planning Commission action: Date of Hearing: October 22, 2014.

Recommendation: _____

Board of Supervisor action: Date of Hearing: _____

Date of Decision: _____

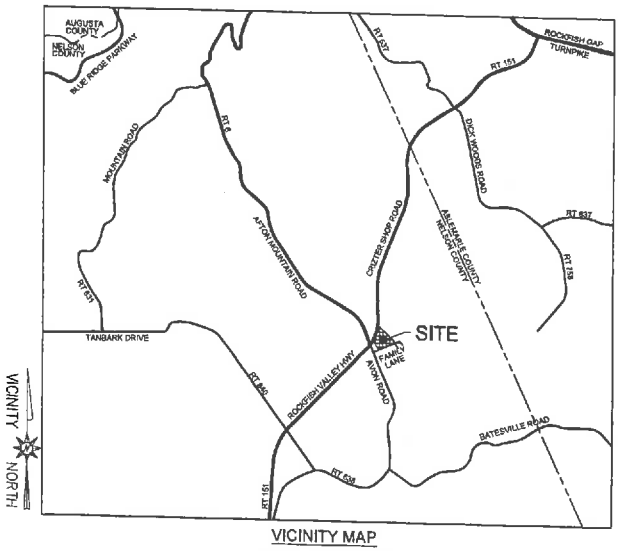
Action: _____

ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN

SITE DATA

OWNER/DEVELOPER:	ZENITH QUEST INTERNATIONAL LLC 522 CHINQUAPIN DRIVE LYNCHBURST , VA 22902
PLAN PREPARER:	ROUDABUSH, GALE & ASSOCIATES 914 MONTICELLO ROAD CHARLOTTESVILLE, VA. 22902
TAX MAP PARCEL, No:	42-44A
PARCEL SIZE:	10.00 AC (435,845 SF) 0.39 AC (16,772 SF) APPROX. AREA OF FUTURE VDOT ROW DEDICATION 9.64 AC (420,073 SF) REMAINING SITE AREA
ZONING:	M2 INDUSTRIAL DISTRICT
USE:	WAREHOUSE WITH AFFILIATED OFFICE 80,000 SF WAREHOUSE 10,000 SF OFFICE 90,000 SF TOTAL
MAGISTERIAL DISTRICT:	03
TOPOGRAPHY:	ROUDABUSH, GALE & ASSOCIATES FIELD SURVEY ON JUNE 19, 2014
DATUM:	NAVD 88
BENCHMARK:	VDOT MONUMENT AT NORTHERN PROPERTY CORNER AT CRITZER SHOP ROAD ELEV = 778.88
SETBACK:	NONE
YARDS:	20' SIDE/REAR ADJACENT TO RESIDENTIAL, AGRICULTURAL OR CONSERVATION DISTRICT
SITE COVERAGE: BUILDING PARKING/LOADING OPEN SPACE	85,000 SF BUILDING FOOTPRINT (20.25%) 79,606 SF (18.95%) 255,467 SF (60.81%)
BUILDING HEIGHT:	LESS THAN 30'
PARKING REQUIRED:	1 SPACE PER EMPLOYEE MAXIMUM SHIFT
PARKING PROVIDED:	30 REGULAR PARKING SPACES (30 EMPLOYEES) 2 ACCESSIBLE PARKING SPACES 32 TOTAL PARKING SPACES
LIGHTING:	SITE LIGHTING WILL BE WALL MOUNTED FIXTURES ON THE BUILDING. LIGHTING WILL BE SHOWN ON BUILDING PERMIT PLAN FOR APPROVAL.

ALL UTILITY LINES SHALL BE INSTALLED UNDERGROUND. THIS INCLUDES ELECTRIC, TELEPHONE, CABLE, FIBER OPTIC, ETC.,.



VICINITY MAP

SCALE: 1"=2000 FEET

SHEET INDEX

SHEET 1 —— COVER SHEET
SHEET 2 —— EXISTING CONDITIONS & SOILS PLAN
SHEET 3 —— LAYOUT & UTILITY PLAN
SHEET 4 —— GRADING PLAN
SHEET 5 —— ENTRANCE PLAN & TRAFFIC CONTROL
SHEET 6 —— PROFILES & HYDRAULIC COMPS
SHEET 7 —— TYPICAL DETAILS
SHEET 8 —— DRAINAGE MAP
SHEET 9 —— SWM/BMP PLAN
SHEET 10 —— EROSION CONTROL PLAN - PHASE 1
SHEET 11 —— EROSION CONTROL PLAN - PHASE 2
SHEET 12 —— EROSION CONTROL NARRATIVE
SHEET 13 —— EROSION CONTROL DETAILS
SHEET 14 —— EROSION CONTROL DETAILS
SHEET 15 —— SWM NOTES AND DETAILS
SHEET 16 —— LANDSCAPE PLAN

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 033673
PROFESSIONAL ENGINEER

APPROVALS		DATE
PLANNING AND ZONING DIRECTOR		
VIRGINIA DEPT. OF TRANSPORTATION		
VIRGINIA DEPT. OF HEALTH		
THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT		
NELSON COUNTY SERVICE AUTHORITY		

ROUDABUSH, GALE & ASSOCIATES, INC.
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PHONE 434-977-0555 - FAX 434-296-2303 - EMAIL INFO@ROUDABUSH.COM

REVISIONS

DATE: Sept. 16, 2014

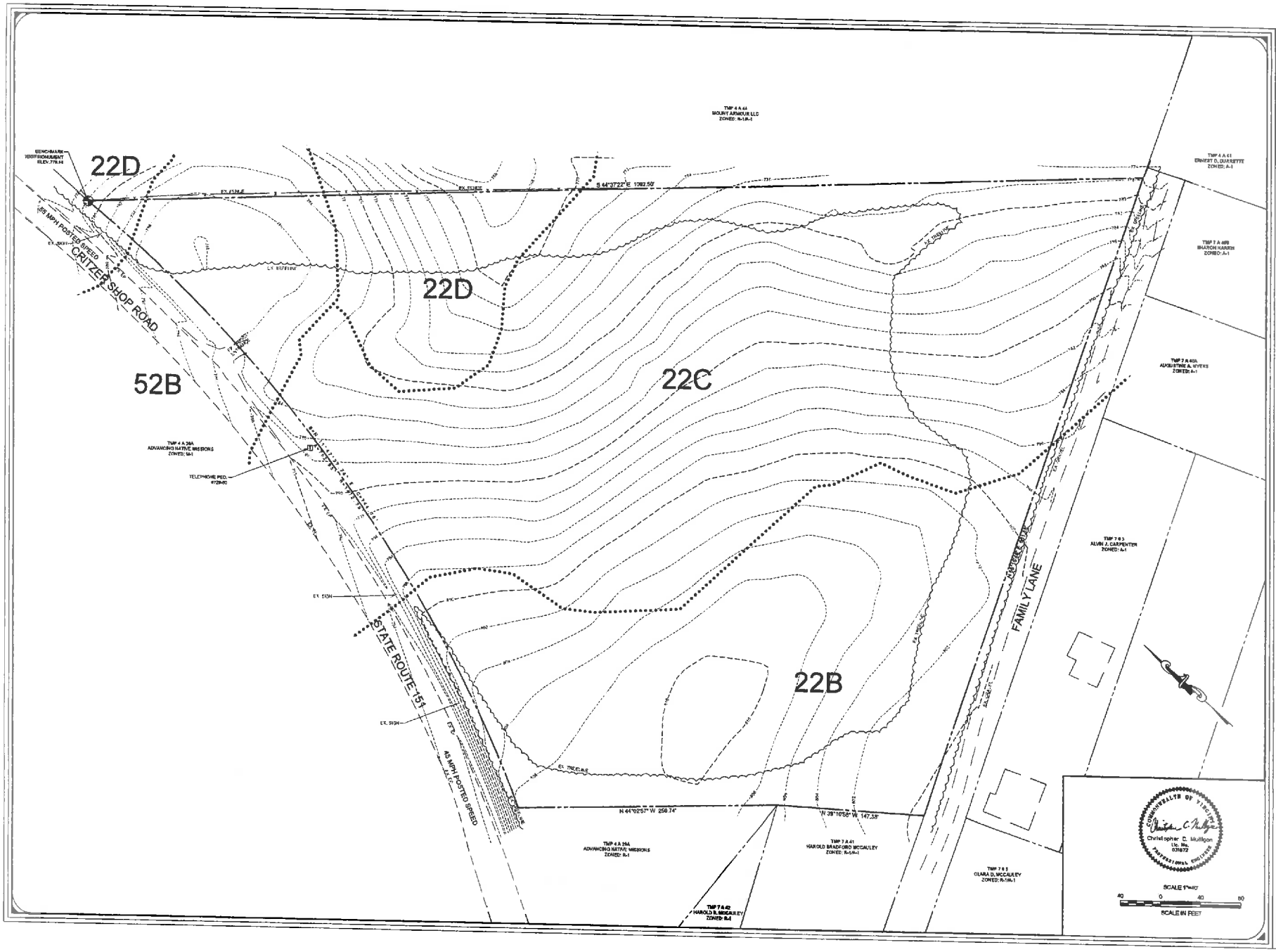
SCALE: AS SHOWN

CONTOUR INTERVAL: N/A

COVER SHEET
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER: 5672

SHEET: 1 of 16



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REVISIONS

DATE
Sept. 19, 2014

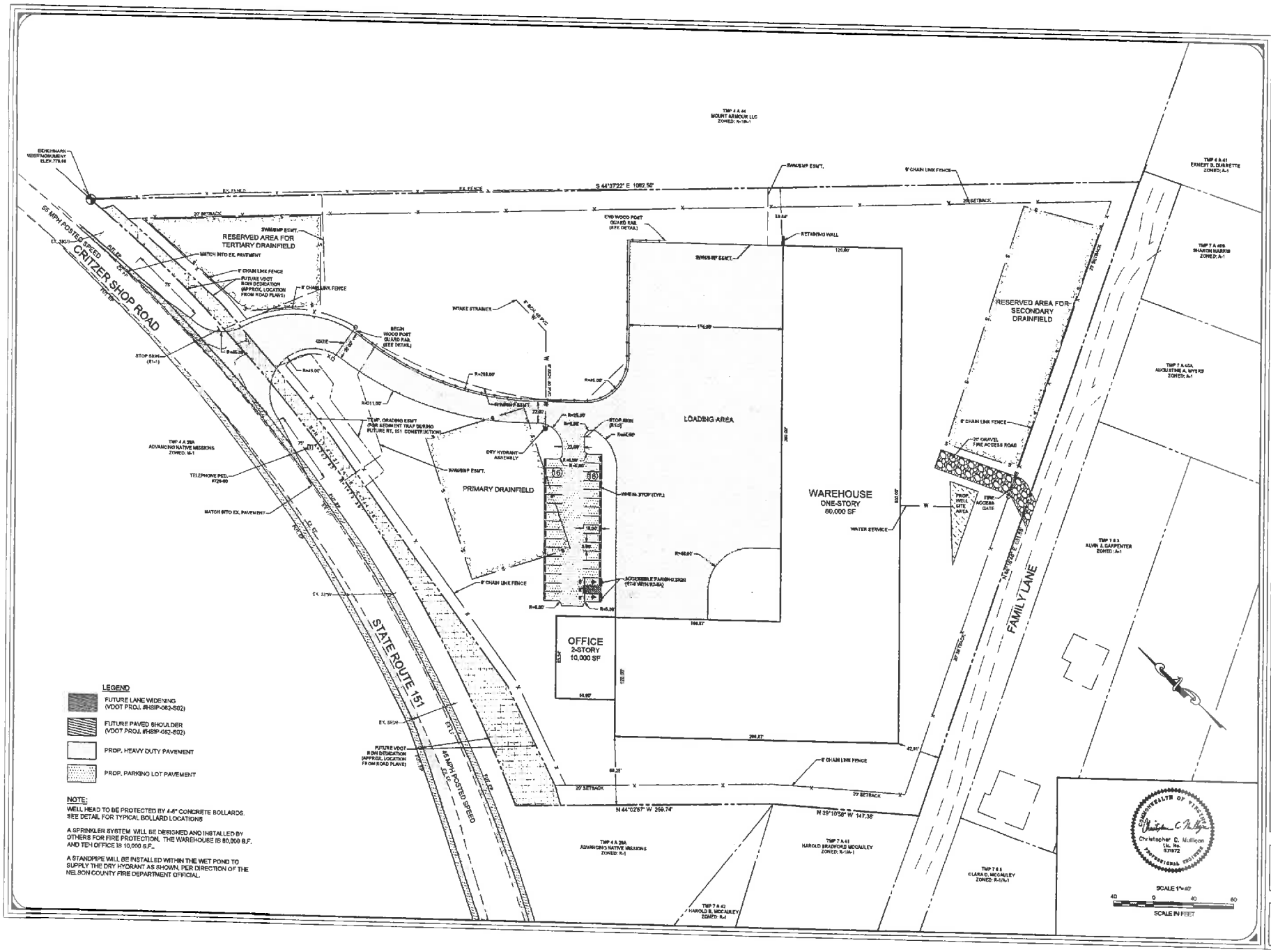
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

EXISTING CONDITIONS & SOIL PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
2 of 16



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REVISIONS

DATE
Sept. 19, 2014

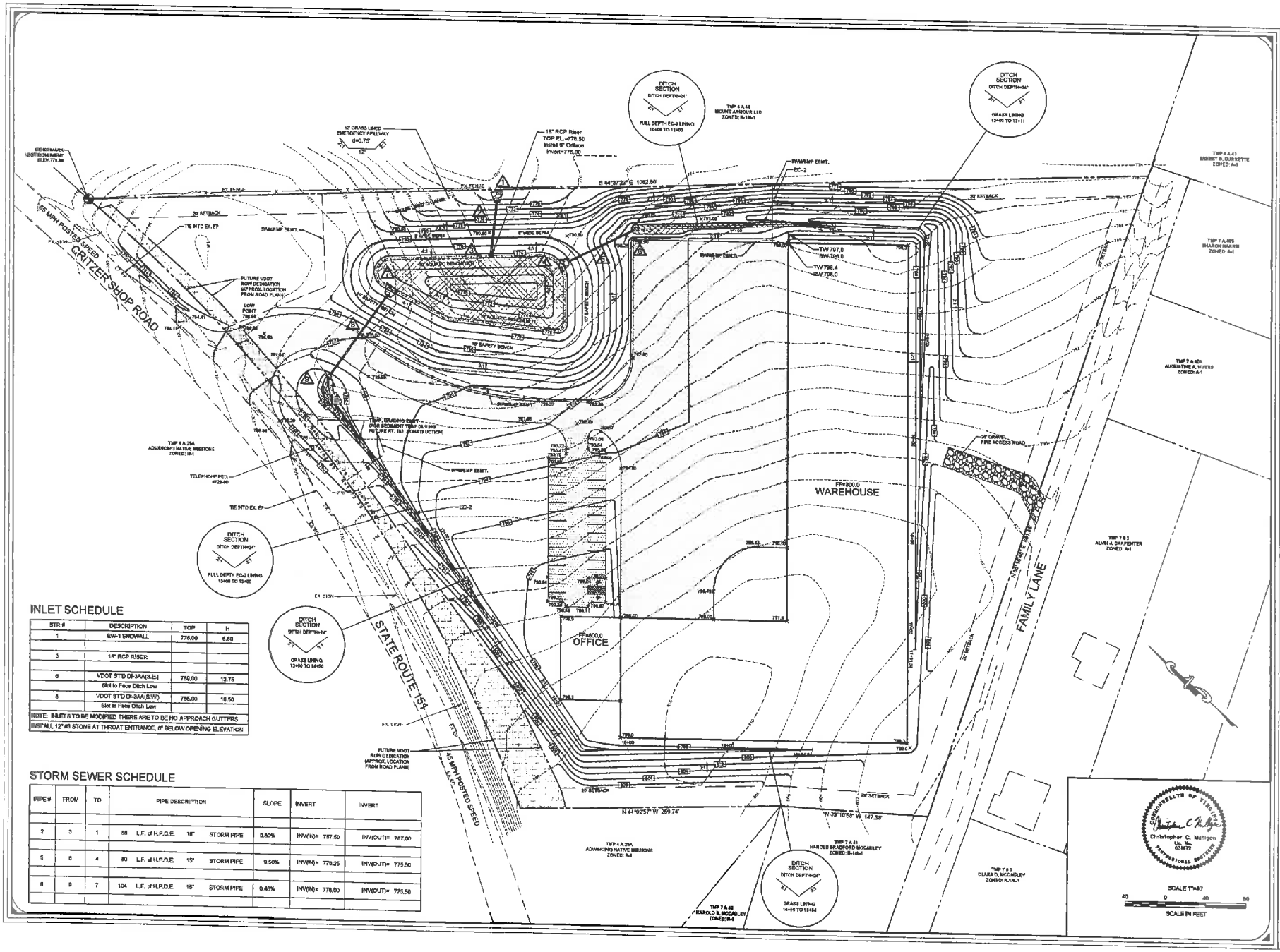
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

LAYOUT & UTILITY PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
3 of 16



INLET SCHEDULE

STR #	DESCRIPTION	TOP	H
1	EW-1 ENDWALL	776.00	6.50
3	18" RCP RISER		
6	VDOT STD DI-3AA(S.E.)	780.00	13.75
	Slot to Face Ditch Low		
8	VDOT STD DI-3AA(S.W.)	786.00	10.50
	Slot to Face Ditch Low		
NOTE: INLETS TO BE MODIFIED THERE ARE TO BE NO APPROACH GUTTERS			
INSTALL 12" #3 STONE AT THROAT ENTRANCE, 6" BELOW OPENING ELEVATION			

STORM SEWER SCHEDULE

PIPE #	FROM	TO	PIPE DESCRIPTION	SLOPE	INVERT	INVERT
2	3	1	58 L.F. of H.P.D.E. 18" STORM PIPE	0.89%	INV(IN)= 787.50	INV(OUT)= 787.00
5	6	4	80 L.F. of H.P.D.E. 15" STORM PIPE	0.50%	INV(IN)= 776.25	INV(OUT)= 775.50
8	9	7	104 L.F. of H.P.D.E. 15" STORM PIPE	0.48%	INV(IN)= 776.00	INV(OUT)= 775.50

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REVISIONS

DATE
Sept. 19, 2014

SCALE
1" = 40'

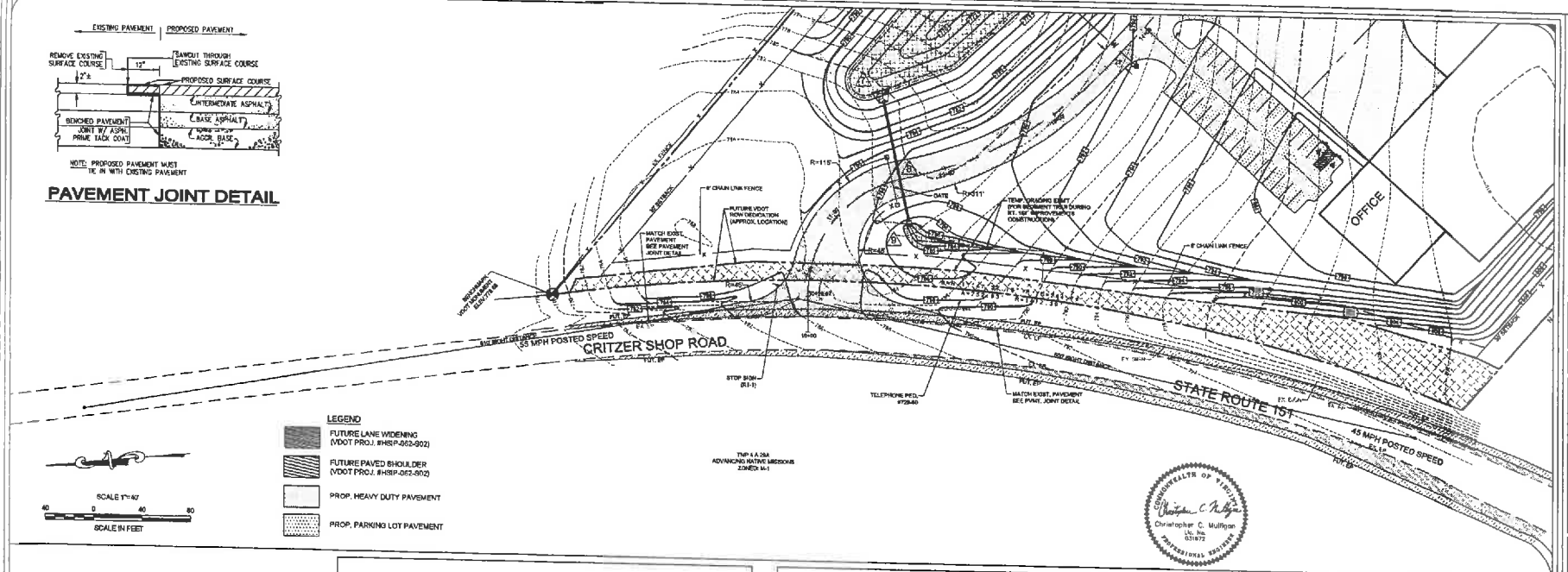
CONTOUR INTERVAL
2 Feet

GRADING PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
4 of 16

PAVEMENT JOINT DETAIL



LEGEND

- FUTURE LANE WIDENING (VDOT PROJ. #HSIP-062-902)
- FUTURE PAVED SHOULDER (VDOT PROJ. #HSIP-062-902)
- PROP. HEAVY DUTY PAVEMENT
- PROP. PARKING LOT PAVEMENT

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 031672
PROFESSIONAL ENGINEER

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REVISIONS

DATE
Sept. 19, 2014

SCALE
AS SHOWN

CONTOUR INTERVAL
2 Feet

ENTRANCE PLAN & TRAFFIC CONTROL
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
5 of 16

SECTION 6G.08 WORK ON THE SHOULDER WITH MINOR ENCROACHMENT

SUPPORT

CHAPTER 6D AND SECTIONS 6F.68 AND 6G.05 CONTAIN ADDITIONAL INFORMATION REGARDING THE STEPS TO FOLLOW WHEN PEDESTRIAN OR BICYCLE FACILITIES ARE AFFECTED BY THE WORKSITE.

GUIDANCE

WHEN WORK TAKES UP PART OF A LANE VEHICULAR TRAFFIC VOLUMES VEHICLE MIX (BUSES, TRUCKS, CARS, MOTORCYCLES, AND BICYCLES), SPEED, AND CAPACITY SHOULD BE ANALYZED TO DETERMINE WHETHER THE AFFECTED LANE SHOULD BE CLOSED. UNLESS THE LANE ENCROACHMENT PERMITS A REMAINING LANE WIDTH OF 11 FEET, THE LANE SHOULD BE CLOSED.

TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMUM LANE WIDTH OF 11 FEET IS ADEQUATE.

OPTION

A LANE WIDTH OF 10 FEET MAY BE USED FOR SHORT-TERM STATIONARY WORK ON LOW-VOLUME (LESS THAN 500 VEHICLES PER DAY), LOW-SPEED (UNDER 45 MPH) ROADWAYS WHEN VEHICULAR TRAFFIC DOES NOT INCLUDE LONGER AND WIDER HEAVY COMMERCIAL VEHICLES.

A LANE WIDTH OF 10 FEET MAY BE USED FOR WORK ACTIVITIES LOCATED ON ENTRANCE AND EXIT RAMPS OF LIMITED ACCESS HIGHWAYS.

GUIDANCE

TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMUM LANE WIDTH OF 10 FEET IS ADEQUATE FOR ENTRANCE AND EXIT RAMPS (SEE FIGURE TTC-27.0).

SUPPORT

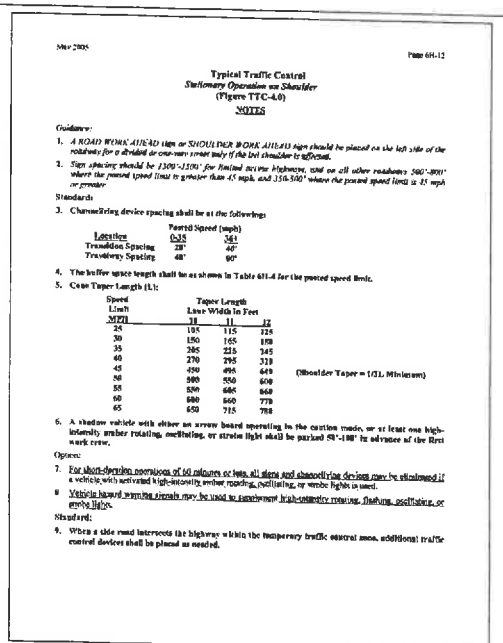
FIGURE TTC-5.0 ILLUSTRATES A METHOD FOR HANDLING VEHICULAR TRAFFIC WHERE THE STATIONARY OR SHORT DURATION WORK SPACE ENCROACHES SLIGHTLY INTO THE TRAVELED WAY.

STANDARD:

DUE TO OCCASIONAL TRAVEL BY OVER WIDTH VEHICLES, WORK ZONES WHICH REDUCE THE ONE WAY TRAVEL PATH OF ROADWAYS OR RAMPS TO WIDTHS LESS THAN 14'-0" WIDE MEASURED FROM EDGELINE TO EDGELINE SHALL BE SIGNED WITH A ROAD NARROWS (W5-1) OR RAMP NARROWS (W5-5) SIGN AND A SUPPLEMENTAL PLAQUE MOUNTED BELOW STATING THE ACTUAL WIDTH OF THE ROADWAY OR RAMP IN FEET AND INCHES.

GUIDANCE:

THE ROAD NARROWS OR RAMP NARROWS SIGN ASSEMBLY SHOULD BE PLACED APPROXIMATELY 1000 FEET IN ADVANCE OF THE RESTRICTED LOCATION, AS WELL AS IN ADVANCE OF THE LAST ALTERNATE ROUTE PRIOR TO THE LANE WIDTH RESTRICTION.



May 2005 Page 6H-12

Typical Traffic Control
Stationary Operation on Shoulder
(Figure TTC-6.0)

NOTES

Guidance:

1. *A ROAD WORK AHEAD sign or SHOULDER WORK AHEAD sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.*
2. *Sign spacing should be 1320'-2500' for limited access highways, and on all other roadways 500'-800' where the posted speed limit is greater than 45 mph, and 350-500' where the posted speed limit is 35 mph or greater.*

Standards

3. Channelizing device spacing shall be at the followings

	Posted Speed (mph)	
Location	0-35	36+
Transition Spacing	20'	40'
Tradeway Spacing	40'	80'

4. The buffer space length shall be as shown in Table 6H-4 for the posted speed limit.
5. Cone Taper Length (L):

Speed Limit MPH	Taper Length Lane Width in Feet 10	11	12
25	105	115	125
30	150	165	180
35	205	225	245
40	270	295	320
45	450	495	540
50	500	550	600
55	550	605	660
60	600	660	720
65	650	715	780

(Shoulder Taper = 1/2L Minimum)

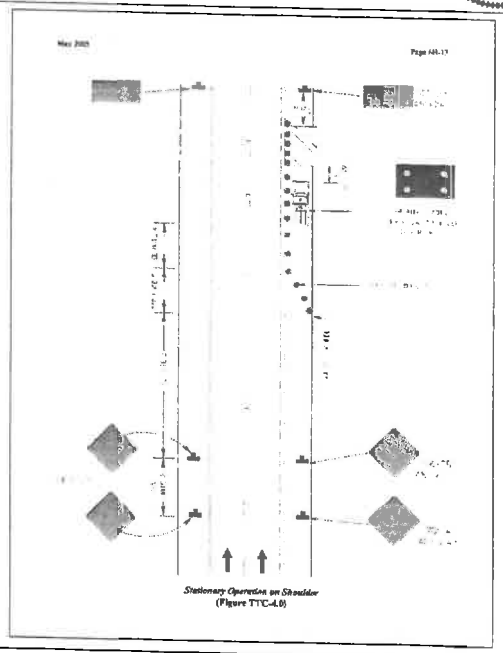
6. A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, oscillating, or strobe light shall be parked 50'-100' in advance of the first work zone.

Options:

7. For short-duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, oscillating, or strobe lights is used.
8. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

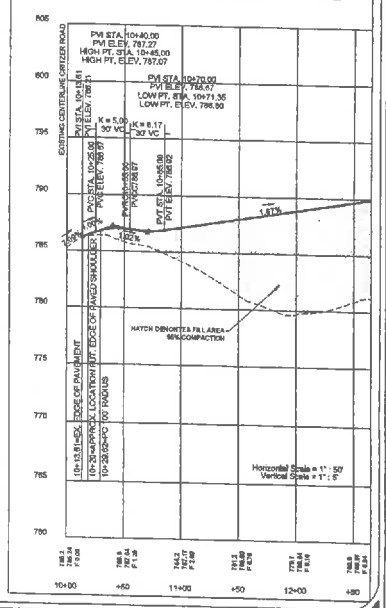
9. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.



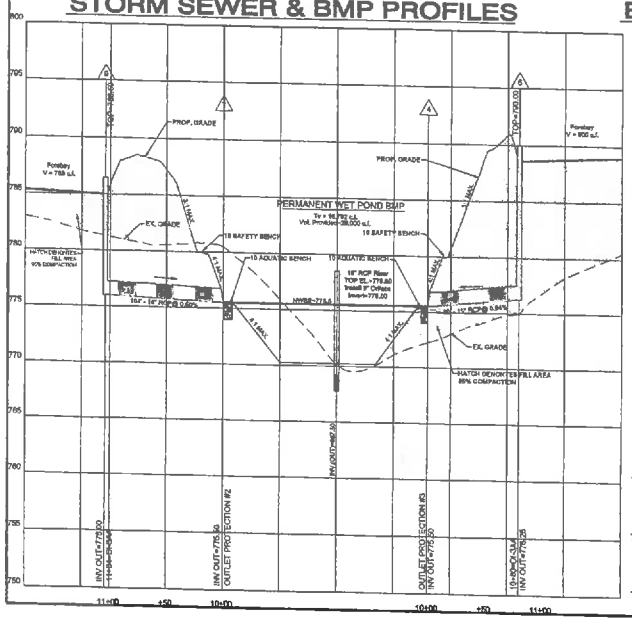
May 2005 Page 6H-13

Stationary Operation on Shoulder
(Figure TTC-6.0)

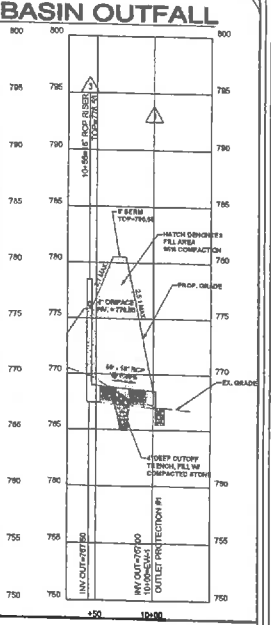
SITE ENTRANCE PROFILE



STORM SEWER & BMP PROFILES



BASIN OUTFALL



DITCH COMPUTATIONS

LOCATION: Drainage Ditches Around Building

STA/BEG/DIC STATION		FLOW	AREAS 0.35 C 1	0.50 C 2	0.70 C 3	CA PROT	CA ACC	Tc	I 2	Q 2	OUT = FILL	SLOPE FT/FT	LINING	EARTH n=.035 VEL.	PROTECTIVE LINING n=.06 Qn	n=.06 VEL.	n=.06 DEP.	n=.016 Qn	n=.016 DEP.	I 10	Q 10	DEP.	REMARKS
NORTH																							
19488	19+00	↓		0.34		0.17	0.17	5.00	5.18	0.88	Cut	0.0100		1.80						6.67	1.13	6"	
19488	18+00	↓		0.29		0.14	0.31	5.01	5.18	1.60	Cut	0.0100		1.74						6.66	2.06	6"	
19488	14+00	↓		0.26		0.13	0.44	5.03	5.17	2.29	Cut	0.0100		1.90						6.65	2.92	7"	
19488	13+00	↓	0.11			0.04	0.48	5.06	5.17	2.47	Cut	0.0100		1.94						6.65	3.18	7"	
19488	12+00	↓	0.18			0.07	0.55	5.07	5.16	2.81	Cut	0.0400		3.37		2.58				6.64	3.62	6"	
19488	11+00	↓	0.12			0.04	0.59	5.10	5.16	3.02	Cut	0.0400		3.43		2.63				6.63	3.89	6"	
19488	10+00	↓	0.26			0.09	0.67	5.14	5.14	3.47	Cut	0.0400		3.55		2.72				6.62	4.46	6"	
SOUTH																							
17913	15+00	↓			0.41	0.29	0.29	5.00	5.18	1.49	Cut	0.0100		1.77						6.67	1.91	6"	
18488	15+00	↓			0.21	0.16	0.43	5.02	5.17	2.23	Cut	0.0100		1.86						6.66	2.69	7"	
18488	14+00	↓			0.19	0.13	0.57	5.04	5.17	2.93	Fill	0.0100		2.09						6.66	3.77	8"	
18488	13+00	↓			0.19	0.13	0.70	5.06	5.16	3.61	Fill	0.0100		2.31						6.65	4.65	8"	
13488	12+00	↓	0.05			0.02	0.72	5.08	5.19	3.76	Fill	0.0120		2.36						6.64	4.75	8"	
12488	11+00	↓	0.05			0.02	0.74	5.10	5.15	3.79	Fill	0.0250		3.16		2.33				6.63	4.87	7"	
11488	10+00	↓	0.05			0.02	0.75	5.14	5.14	3.87	Fill	0.0360		3.63		2.66				6.62	4.96	7"	
ES Diversion Channel																							
	88	↓	3.00			1.05	1.05	5.00	4.48	4.70	Fill	0.0120		2.52		1.87				5.81	6.10	9"	

STORM SEWER COMPUTATIONS (VDOT LD-229)

FROM POINT	TO POINT	DA (ACRES)	C	CA INCR.	CA ACCUM.	TC MINUTES	RAINFALL INHR	RUN-OFF CFS	INVERT UPPER	INVERT LOWER	LENGTH FEET	SLOPE %	DIAM. INCHES	CAPACITY CFS	VELOCITY F.P.S.	FLOW TIME MIN.
8	4	1.19	0.70	0.61	0.81	5.14	6.62	5.37	778.26	775.50	60	0.94%	15	6.25	5.09	0.23
9	7	1.09	0.46	0.50	0.50	5.14	6.62	3.32	776.00	775.50	104	0.48%	15	4.43	3.94	0.44

INLET COMPUTATIONS - @ 4" PER HOUR

INLET	L	STATION	DA	DA SUM	C	C SUM	CA	Tc	CA	INTENSITY	Qbase	Qss	Qt GUTTER FLOW	Y GUTTER SLOPE	Sw GUTTER SLOPE	GUTTER SPREAD	W FT	WET FT/FT	Sx FT/FT	Sw/Sx	Eo	a	Sw/Sx =	Sw/Sx =	L1 (FHWA) Full Length	L1/Lt	GUTTER FLOW DEPTH	T (FT)	h FT	h SAG	d1 GRADE	depth FT	dc CAM/HYDR	SPREAD AT SAG (ft)	SPREAD REMARKS
8	2.5		1.19	1.19	0.70	0.70	0.81		0.81	4.0	3.26		3.26	0.025	0.05	3.5	2	0.666	0.0833	1.7	0.94	0.8	0.033	0.128	13.9	0.3	0.24	0.291	0.46	3.85		0.38		7.64	1" Ponded
9	2.8		1.09	1.09	0.46	0.46	0.50		0.50	4.0	2.01		2.01	0.025	0.05	3.0	2	0.675	0.0833	1.7	0.99	0.8	0.033	0.130	11.2	0.2	0.21	0.264	0.46	3.29		0.27		6.47	1" Ponded

INLET COMPUTATIONS - @ 6.5" PER HOUR

INLET	L	STATION	DA	DA SUM	C	C SUM	CA	Tc	CA	INTENSITY	Qbase	Qss	Qt GUTTER FLOW	Y GUTTER SLOPE	Sw GUTTER SLOPE	GUTTER SPREAD	W FT	WET FT/FT	Sx FT/FT	Sw/Sx	Eo	a	Sw/Sx =	Sw/Sx =	L1 (FHWA) Full Length	L1/Lt	GUTTER FLOW DEPTH	T (FT)	h FT	h SAG	d1 GRADE	depth FT	dc CAM/HYDR	SPREAD AT SAG (ft)	SPREAD REMARKS
8	2.5		1.19	1.19	0.70	0.70	0.81		0.81	6.5	5.28		3.90	0.025	0.05	3.8	2	0.525	0.0833	1.7	0.90	0.8	0.033	0.175	17.3	0.1	0.26	0.245	0.46	4.53		0.52		10.42	Ponded
9	2.8		1.09	1.09	0.46	0.46	0.50		0.38	6.5	3.25		2.44	0.025	0.05	3.2	2	0.629	0.0833	1.7	0.92	0.8	0.033	0.127	14.0	0.2	0.23	0.298	2.46	3.88		0.39		7.99	Ponded

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REVISIONS

DATE
Sept. 15, 2014

SCALE
HORZ. 1" = 50'
VERT. 1" = 10'

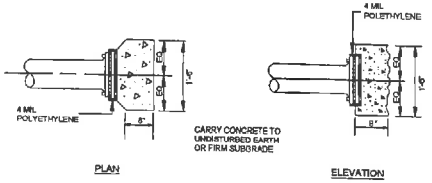
CONTOUR INTERVAL
N/A

Christopher C. Mulligan
Lic. No. 031872

PROFILES & HYDRAULIC COMPUTATIONS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

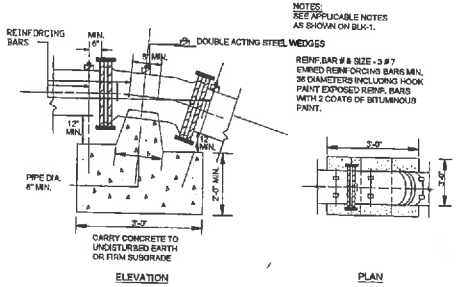
FILE NUMBER
9572

SHEET
6 of 16



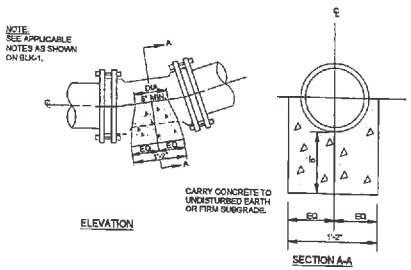
NOTE:
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI.

HYDRANT BLOCKING DETAIL
NOT TO SCALE



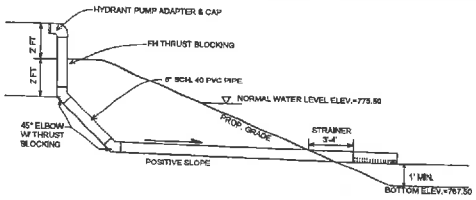
NOTE:
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI.

UPPER VERTICAL BEND BLOCKING DETAIL

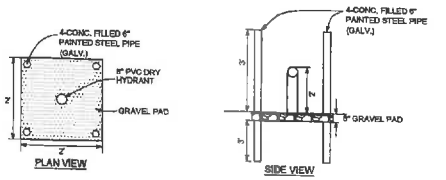


NOTE:
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI.

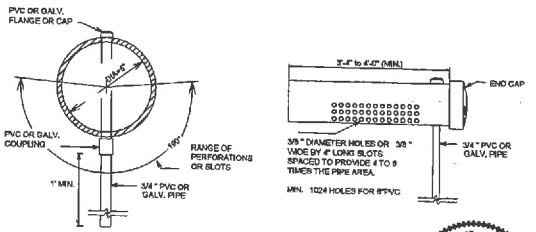
LOWER VERTICAL BEND BLOCKING DETAIL



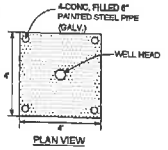
DRY HYDRANT DETAIL
NOT TO SCALE



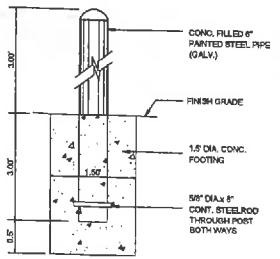
DRY HYDRANT PROTECTIVE BASE PAD DETAILS
NOT TO SCALE



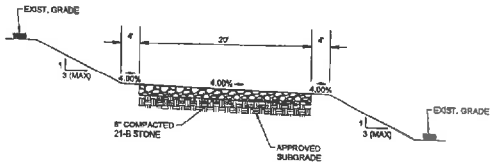
STRAINER AND PIPE SUPPORT DETAILS
NOT TO SCALE



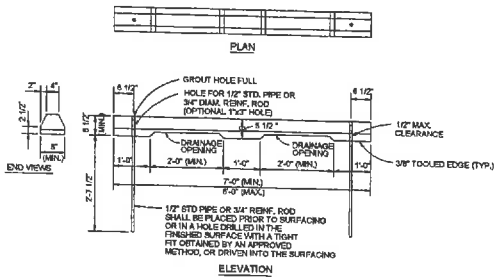
WELL HEAD PROTECTION BOLLARD LOCATION DETAIL
NOT TO SCALE



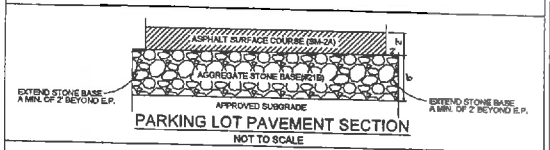
TYPICAL BOLLARD DETAIL
NOT TO SCALE



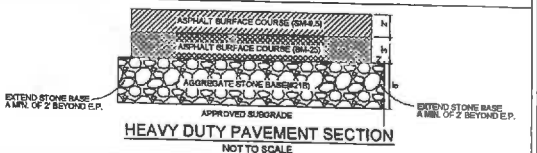
FIRE ACCESS ROAD
NOT TO SCALE



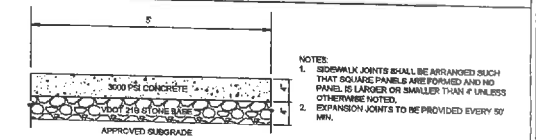
PRECAST CONCRETE WHEEL STOP
NOT TO SCALE



PARKING LOT PAVEMENT SECTION
NOT TO SCALE



HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE



NOTES:
1. SIDEWALK JOINTS SHALL BE ARRANGED SUCH THAT SQUARE PANELS ARE FORMED AND NO PANEL IS LARGER OR SMALLER THAN 4' UNLESS OTHERWISE NOTED.
2. EXPANSION JOINTS TO BE PROVIDED EVERY 50' MIN.

CONCRETE SIDEWALK
NOT TO SCALE

ROUDABUSH, GALE & ASSOCIATES, INC.
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PHONE 434-977-0205 - FAX 434-296-8893 - EMAIL INFO@RGADESIGN.COM

REVISIONS

DATE
Sept. 19, 2014

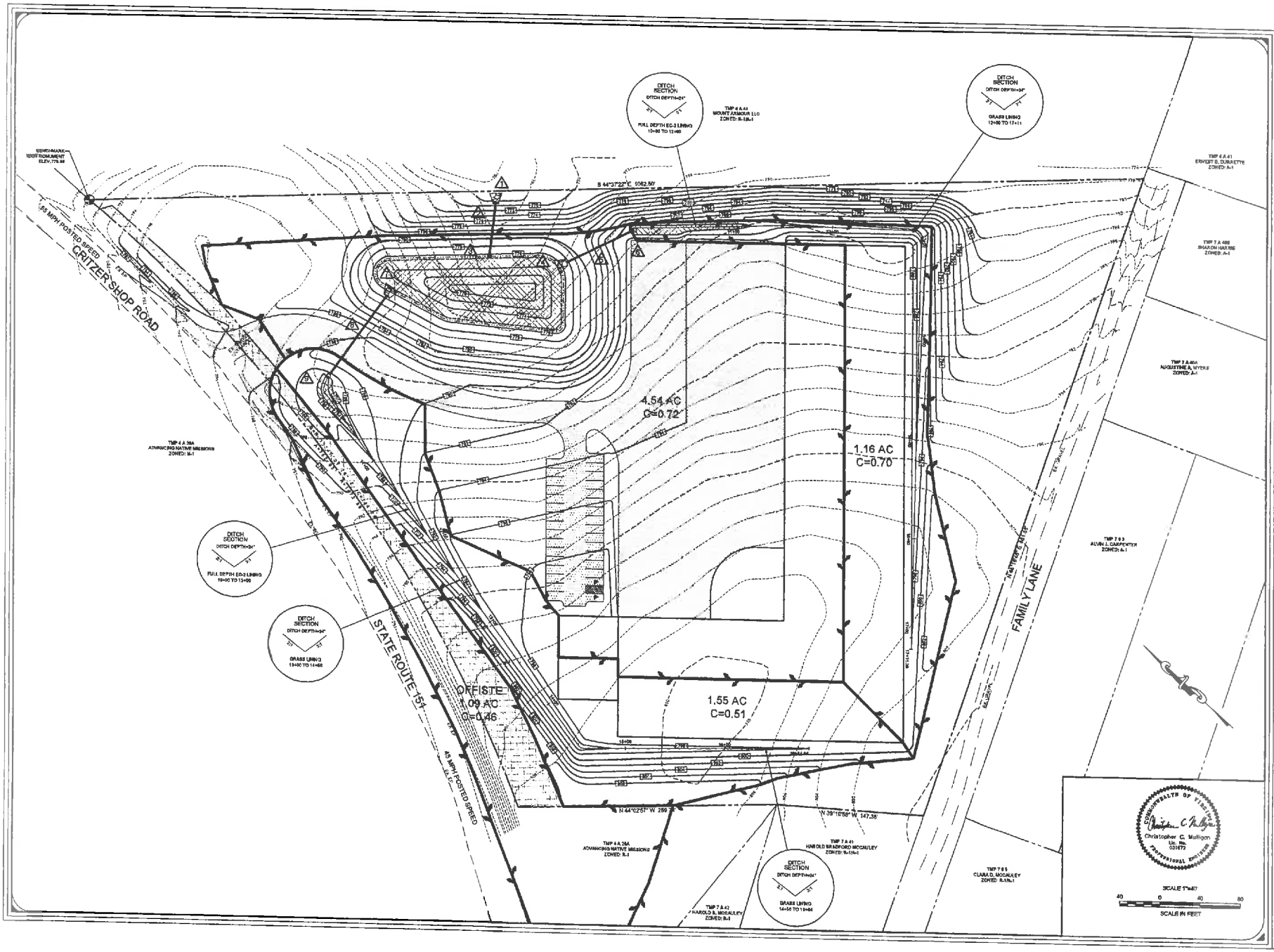
SCALE
N/A

CONTOUR INTERVAL
N/A

TYPICAL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
6972

SHEET
7 of 16



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REVISIONS

DATE
Sept. 19, 2014

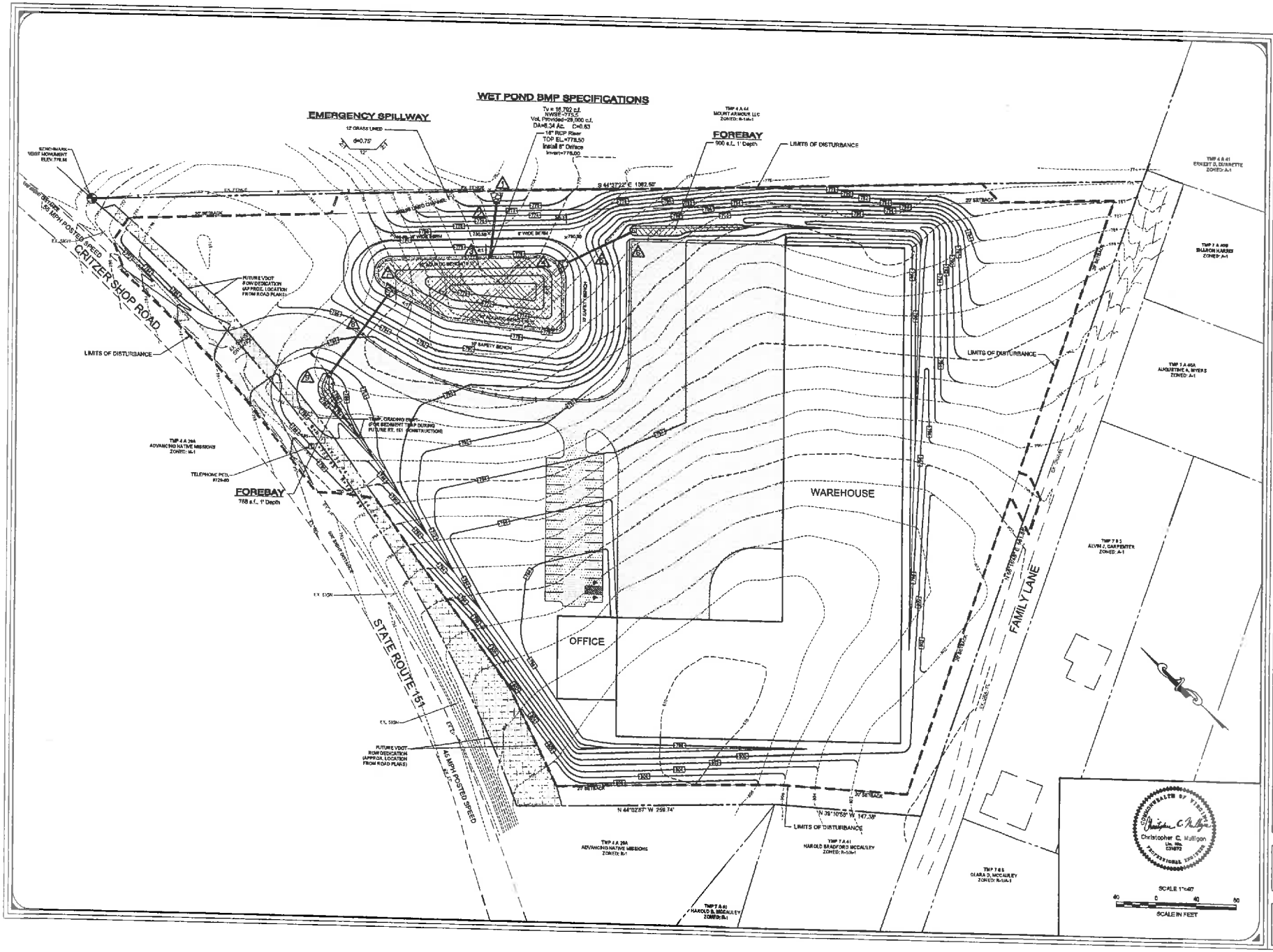
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

DRAINAGE MAP
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
6572

SHEET
8 of 10



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REVISIONS

DATE
SEPT. 16, 2014

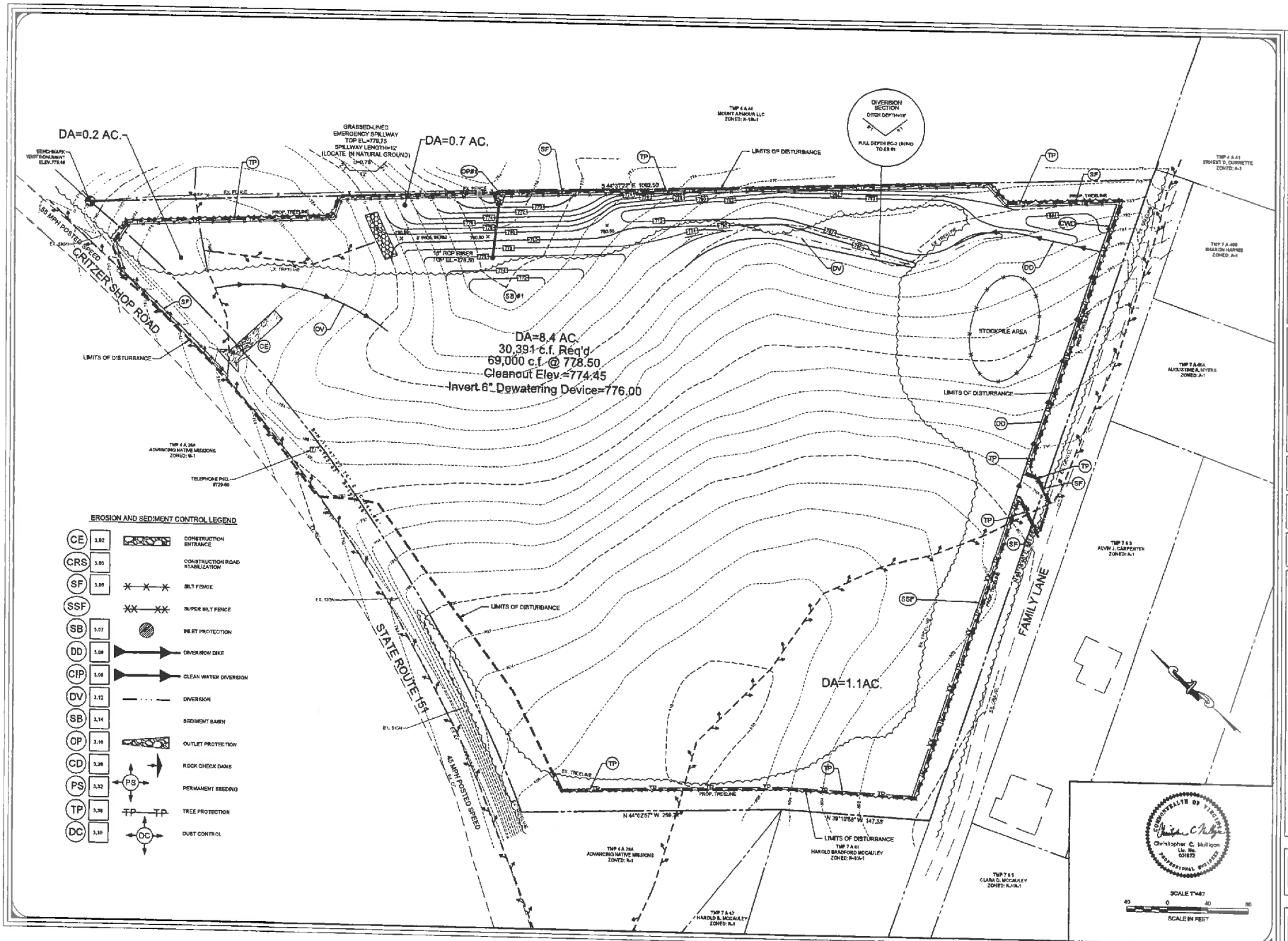
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

SWM/BMP PLAN
ZENITH QUEST
AFTON MOUNTAIN
SWM & BMP PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
8 of 16



ROUDABUSH, GALE & ASSOCIATES, INC.
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PHONE 434-977-0220 - FAX 434-[illegible] - EMAIL INFO@ROUDABUSH.COM

REVISIONS

DATE
Sept. 19, 2014

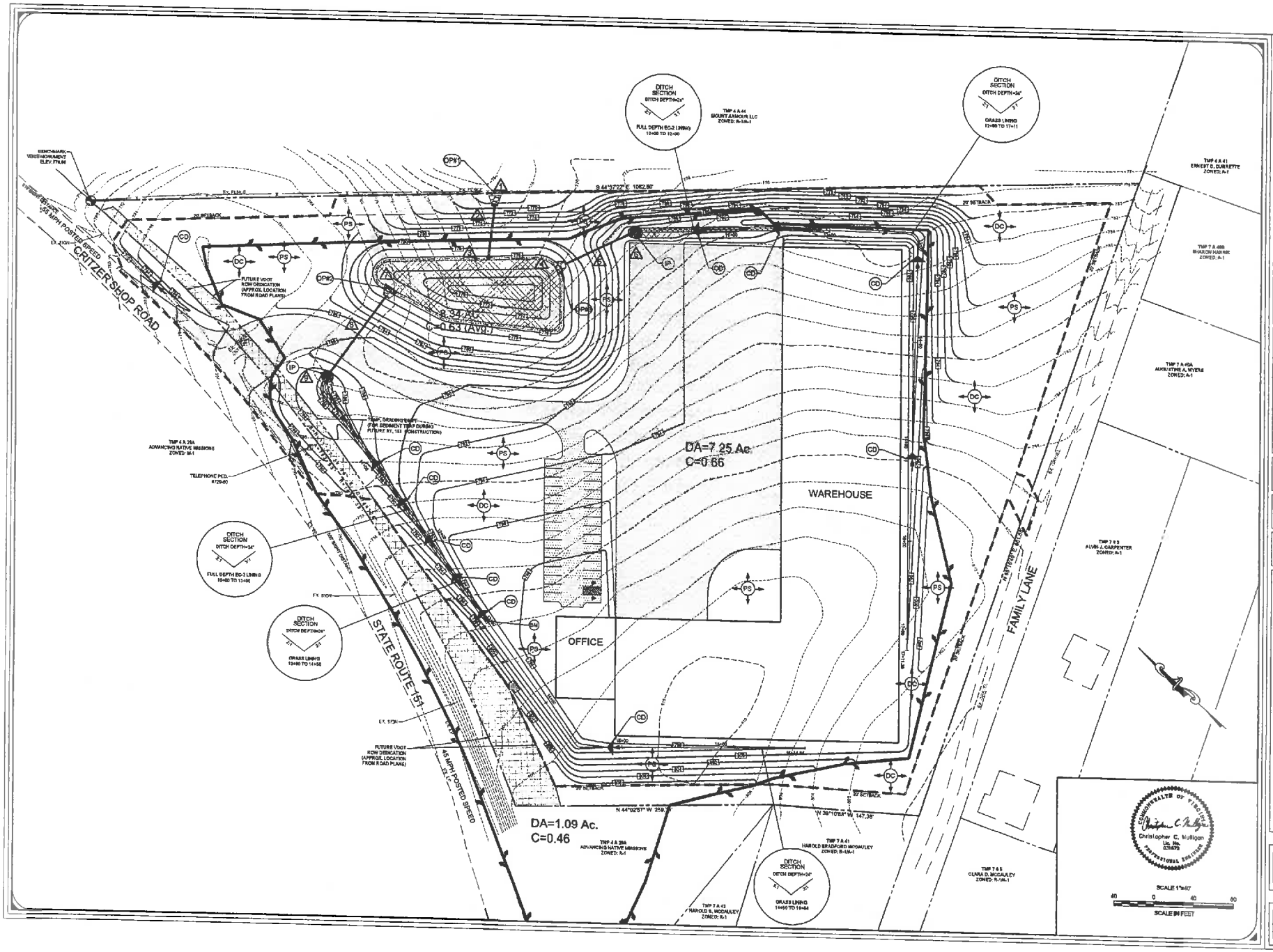
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

EROSION CONTROL PLAN - PHASE 1
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
10 of 16



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REVISIONS

DATE
Sept. 19, 2014

SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

EROSION CONTROL PLAN - PHASE 2
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8872

SHEET
11 of 16

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS (Section 4VAC50-30-40)

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

CONTRACTOR SHALL ESTABLISH A STABILIZED SITE, AND NOT ALLOW ANY SEDIMENT TO EXIT THE PROJECT SITE.

2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

SOIL STOCKPILES TO BE LOCATED ONSITE. EXCESS MATERIAL NOT USED FOR ON SITE GRADING TO BE HAULED TO AN APPROVED SITE WITH ADEQUATE EROSION CONTROL PROTECTION.

3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

CONTRACTOR SHALL ESTABLISH A VEGETATIVE COVER ON ALL DENUDED AREAS.

4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

CONTRACTOR SHALL INSTALL PERIMETER SEDIMENT BARRIERS TO TREAT STORM RUNOFF AS THE FIRST STEP OF CLEARING AND GRADING.

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

CONTRACTOR SHALL STABILIZE ALL EARTHEN EROSION STRUCTURES IMMEDIATELY AFTER INSTALLATION.

6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

THE SEDIMENT BASIN IS SIZED FOR THE CONTRIBUTING DRAINAGE AREA.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE (3.0) ACRES. SEE SIZING TABLE FOR DIMENSIONS.

B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

THE SEDIMENT BASIN IS SIZED BASED ON BARE SOIL CONDITIONS FOR THE 25-YEAR STORM.

7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

THIS APPLIES TO THE AREAS GRADED DURING SITE IMPROVEMENTS.

8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

THERE ARE NO CRITICAL AREAS ONSITE.

9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

THERE ARE NO CRITICAL AREAS ONSITE.

10. ALL STORM SEWER INLETS THAT ARE MADE OPERATIONAL DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

INLET SHALL BE PROTECTED WITH INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE PIPES.

11. BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

CONTRACTOR TO INSTALL THE APPROPRIATE OUTLET PROTECTION AND PERMANENT CHANNEL LINING PRIOR TO CHANNELS OR PIPES ARE MADE OPERATIONAL.

12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

THERE ARE NO CRITICAL AREAS ONSITE.

13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIAL SHALL BE PROVIDED.

THERE ARE NO CRITICAL AREAS ONSITE.

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

THERE ARE NO CRITICAL AREAS ONSITE.

15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

THERE ARE NO CRITICAL AREAS ONSITE.

16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
   - A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
   - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
   - C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
   - D. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
   - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
   - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

THIS APPLIES TO ALL UTILITY INSTALLATION OPERATIONS INCLUDING WATER, SEWER, POWER, CABLE OR GAS.

17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ADJACENT ROADS CLEAN FROM SOIL BUILD-UP.

18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

CONTRACTOR SHALL STABILIZE SITE, AND OBTAIN INSPECTOR APPROVAL PRIOR TO REMOVING ANY EROSION CONTROL MEASURES.

19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORM WATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA: ALL CONCENTRATED RUN-OFF IS DIRECTED TO DRAINAGE DITCHES OR INLETS AND OUTFALLS INTO A TEMPORARY SEDIMENT TRAP. THERE IS ALSO AN EXISTING WET POND LOCATED AT THE TOE OF THE CONVEYANCE CHANNEL.
   - A. CONCENTRATED STORM WATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

ALL RUN-OFF IS CONVEYED TO THE SAME ORIGINAL OUTFALL LOCATION.
   - B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
     - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION;

       OR
     - (2) (a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORM WATER WILL NOT OVERTOP THE CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS; AND

THE CHANGES IN RUN-OFF ASSOCIATED WITH THE DEVELOPMENT ARE QUANTIFIED IN THE HYDROLOGIC ANALYSIS AND SUMMARIZED IN THE NARRATIVE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN REVIEWING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN REVIEWING AUTHORITY.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION AND SEDIMENT CONTROL NARRATIVE

PRIOR TO CONSTRUCTION

1. CONTRACTOR SHALL OBTAIN PERMITS TO WORK WITHIN STATE RIGHT-OF-WAY (VDOT LAND-USE PERMIT).
2. CONTRACTOR SHALL COORDINATE WITH OWNER TO OBTAIN VSMP PERMITS, AS REQUIRED BY THE STATE DEPARTMENT OF CONSERVATION AND RECREATION (DEQ).
3. CONTRACTOR SHALL OBTAIN LAND DISTURBANCE PERMIT FROM THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO BEGINNING CONSTRUCTION. A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, THE CERTIFIED LAND DISTURBER, AND THE ENVIRONMENTAL INSPECTOR MAY ALSO BE REQUIRED. ALLOW 72 HOURS FOR COORDINATION AND SCHEDULING OF PRE-CONSTRUCTION MEETING.

PROJECT DESCRIPTION

THE PROJECT INVOLVES THE CONSTRUCTION OF AN 60,000 SF WAREHOUSE AND 10,000 SF OFFICE BUILDING ALONG WITH THE ASSOCIATED INFRATRUCTURE. THE INFRASTRUCTURE INCLUDES AN ACCESS DRIVE, PARKING AREA, LOADING AREA, SEPTIC DRAIN FIELD, STORM SEWER, STORMWATER MANAGEMENT POND, AND OTHER ASSOCIATED UTILITIES. APPROXIMATELY 6.4 ACRES WILL BE DISTURBED DURING THE CONSTRUCTION OF THIS PROJECT.

EXISTING SITE CONDITIONS

THE PROJECT SITE IS TEN ACRES LOCATED ON THE EAST SIDE OF CRITZER SHOP ROAD (ROUTE 151) APPROXIMATELY 500 FEET NORTH OF THE AFTON MOUNTAIN ROAD (ROUTE 638) INTERSECTION. THE PROJECT SITE IS CURRENTLY COVERED BY A LARGE MEADOW WITH A FEW LONE TREES AND A FEW THICKETS OF TREES. THREE OF THE FOUR PROPERTY LINES ARE WOODED: THE NORTHEAST, THE SOUTHEAST AND SOUTHWEST PROPERTY LINES.

CRITICAL AREAS

THERE ARE NO CRITICAL AREAS WITHIN THE PROJECT AREA AND THE LAND DISTURBANCE WILL BE PROTECTED BY A TEMPORARY SEDIMENT BASIN, LATER CONVERTED TO A PERMANENT WET POND/BMP FACILITY.

ADJACENT AREAS

THE PROPERTY TO THE NORTHEST IS CURRENTLY VACANT WITH MEADOWS LOCATED BEYOND THE TREED FENCE ROW THAT SEPARATES THE PROPERTIES. FAMILY LANE IS LOCATED ON THE SOUTHEAST PROPERTY LINE. THERE ARE THREE RESIDENTIAL PROPERTIES THAT ACCESS FAMILY LANE THAT ARE DIRECTLY ADJACENT TO THE PROJECT SITE. TO THE SOUTHEAST, THERE ARE TWO RESIDENTIAL PROPERTIES AND A VACANT PROPERTY. THE SITE IS BOUND TO THE NORTHWEST BY CRITZER SHOP ROAD (ROUTE 151). THE PROPERTY ACROSS CRITZER SHOP ROAD IS A NON-PROFIT WAREHOUSE.

OFF-SITE AREAS

THERE IS APPROX. 1.05 AC. OF RUNOFF ALONG CRITZER SHOP ROAD THAT COMBINES WITH THE SITE'S DEVELOPED RUNOFF AND SHALL BE CONTROLLED VIA THE SEDIMENT BASIN.

SOILS

22B—HAYESVILLE LOAM (2 TO 7 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 6 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM, HAZARD OF EROSION IS SLIGHT, NO FLOODING HAZARD, SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE, K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR), HYDROLOGIC SOIL GROUP: B

22C—HAYESVILLE LOAM (7 TO 15 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 6 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM, HAZARD OF EROSION IS SLIGHT, NO FLOODING HAZARD, SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE, K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR), HYDROLOGIC SOIL GROUP: B

22D—HAYESVILLE LOAM (15 TO 25 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 6 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 6 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS HIGH, HAZARD OF EROSION IS MODERATE, NO FLOODING HAZARD, SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE, K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR), HYDROLOGIC SOIL GROUP: B

57B—WINTERGREEN LOAM (2 TO 7 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 3 INCHES THICK. SUBSURFACE SOIL IS STRONG BROWN LOAM TO A DEPTH OF 7 INCHES. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 35 INCHES AND RED CLAY WITH PINKISH WHITE AND STRONG BROWN MOTTLES TO APPROXIMATELY 82 INCHES.

AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM, HAZARD OF EROSION IS SLIGHT. SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE, K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR), HYDROLOGIC SOIL GROUP: B

ALL SOILS ON SITE
THE HIGH CONTENT OF CLAY IN THE SUBSURFACE LAYER INCREASES THE DIFFICULTY OF DIGGING, FILLING, AND COMPACTING THE SOIL MATERIAL IN SHALLOW EXCAVATIONS.

STRUCTURAL PRACTICES

1. TEMPORARY CONSTRUCTION ENTRANCE (3.02) - A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE EXISTING GRAVEL ENTRANCE OFF OF CRITZER SHOP ROAD (ROUTE 151).
2. ROAD STABILIZATION (3.03) - ACCESS ROADS, PARKING AREAS, AND OTHER ON-SITE VEHICLE TRANSPORTATION ROUTES SHALL BE STABILIZED WITH STONE IMMEDIATELY AFTER GRADING.
3. SILT FENCE BARRIER (3.05) - SILT FENCE BARRIERS WILL BE INSTALLED TO FILTER STORM RUNOFF FROM SHEET FLOW AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. SUPER SILT FENCE BARRIER - WIRE-REINFORCED SILT FENCE BARRIER WILL BE INSTALLED TO FILTER RUNOFF FROM SHEET FLOW AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
5. INLET PROTECTION (3.07) - INLET PROTECTION WILL BE INSTALLED AT THE PROPOSED STORM DRAIN INLET PRIOR TO FINAL STABILIZATION OF THE SITE.
6. TEMPORARY DIVERSION DIKES (3.09) - A SYSTEM OF DIVERSION DIKES TO DIRECT THE FLOW OF STORM RUNOFF INTO THE SEDIMENT BASIN WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
7. CLEANWATER DIVERSION DIKES - A SYSTEM OF DIVERSION DIKES TO DIRECT THE FLOW OF CLEAN OFFSITE WATER AROUND THE SITE WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
8. DIVERSION (3.12) - A DIVERSION CHANNEL TO DIRECT THE FLOW OF STORM RUNOFF INTO THE SEDIMENT BASIN WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
9. TEMPORARY SEDIMENT BASIN (3.14) - A TEMPORARY SEDIMENT BASIN IS TO BE CONSTRUCTED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. CALCULATIONS FOR THE SEDIMENT BASIN ARE SHOWN WITH THE EROSION AND SEDIMENT CONTROL DETAIL FOR THE SEDIMENT BASIN.
10. OUTLET PROTECTION (3.18) - OUTLET PROTECTION WILL BE INSTALLED AT THE END OF ALL STORM SEWER PIPES. CALCULATIONS FOR THE OUTLET PROTECTION ARE SHOWN WITH THE EROSION AND SEDIMENT CONTROL DETAILS. THE RIPRAP SHOULD BE CHECKED PERIODICALLY TO ENSURE SCOURING IS NOT OCCURRING BENEATH FABRIC UNDERLINING OF THE RIPRAP LAYER.
11. CHECK DAM (3.20) - ROCK CHECK DAMS WILL BE INSTALLED IN THE PROPOSED DITCHES TO REDUCE THE VELOCITY OF CONCENTRATED FLOWS WHICH WILL HELP, IN THE ESTABLISHMENT OF THE GRASS LINING. AFTER THE UPSLOPE AREA IS STABILIZED, THE CHECK DAMS MAY BE REMOVED AND PROPERLY DISPOSED IN ACCORDANCE WITH VESCH REGULATIONS.

VEGETATIVE PRACTICES

1. SURFACE ROUGHENING (3.29) - ALL AREAS WITH A GRADE STEEPER THAN 3:1 SHALL BE STAIR-STEP GRADED OR GROOVED (PLATE 3.29-4) TO AID IN GRASS ESTABLISHMENT, INCREASE INFILTRATION, AND TO SLOW RUNOFF VELOCITIES.
2. TOPSOILING & STOCKPILING (3.30) - TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILES ARE TO BE STABILIZED WITH TEMPORARY VEGETATION OR TO HAVE SILT FENCE INSTALLED ALONG THE LOWER PERIMETER TO PROTECT DOWNSTREAM AREAS.
3. TEMPORARY SEEDING (3.31) - AREAS NOT BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED MIXTURE ACCEPTABLE FOR THAT TIME OF YEAR. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
4. PERMANENT SEEDING (3.32) - AREAS BROUGHT TO FINAL GRADE SHALL BE STABILIZED WITH A PERMANENT SEED MIXTURE ACCEPTABLE FOR THE PIEDMONT REGION. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
5. MULCH (3.35) - PLANT RESIDUES OR OTHER SUITABLE MATERIALS SHALL BE APPLIED TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. THIS PRACTICE SHOULD BE APPLIED TO ALL SEEDING OPERATIONS, OTHER PLANTER MATERIALS WHICH DO NOT PROVIDE ADEQUATE SOIL PROTECTION BY THEMSELVES, AND BARE AREAS WHICH CANNOT BE SEEDED DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
6. EROSION CONTROL BLANKETS (3.36) - EROSION CONTROL BLANKETS WILL BE INSTALLED ON FILL SLOPES WITH A SLOPE GREATER THAN 2:1 FOLLOWING FINAL GRADING AND SEEDING. EROSION CONTROL BLANKETS WILL ALSO BE INSTALLED IN DITCHES WHERE POTENTIAL EROSIVE VELOCITIES MAY EXIST AS DETERMINED BY ENGINEERING CALCULATIONS. THIS WILL PROTECT FROM RILL AND GULLY EROSION. SEE EROSION CONTROL PHASE 2 PLAN FOR LOCATION.
7. TREE PROTECTION (3.38) - THE TREE FENCE BARRIER WILL BE INSTALLED TO PROTECT THE TREES OUTSIDE OF THE LIMITS OF DISTURBANCE AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
8. DUST CONTROL (3.39) - DUST CONTROL METHODS MUST BE USED TO REDUCE THE AMOUNT OF AIRBORNE DUST DURING ALL PHASES OF CONSTRUCTION WHERE SOIL IS EXPOSED OR DISTURBED.

MANAGEMENT STRATEGIES

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS THE FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
3. THE SEDIMENT BASIN SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EVERY RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE-HALF OF THE DESIGN VOLUME OF THE WET STORAGE.
4. TEMPORARY SEEDING OR OTHER STABILIZATION METHOD WILL FOLLOW IMMEDIATELY AFTER GRADING.
5. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
6. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
7. WITHIN 30 DAYS AFTER BEING NOTIFIED BY THE EROSION AND SEDIMENT CONTROL ADMINISTRATOR, THE TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE CLEANED UP OR REMOVED, AND ANY SEDIMENT TRAPS OR SEDIMENT BASINS CAN BE CLEANED OUT OR CONVERTED TO PERMANENT STORMWATER MANAGEMENT FACILITIES.
8. THE STORMWATER MANAGEMENT FACILITIES SHOULD BE CHECKED REGULARLY BY THE OWNER TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAVE NOT BEEN DAMAGED BY EROSION. THE EMERGENCY SPILLWAY SHALL BE CHECKED REGULARLY TO ENSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION RESISTANT. GRASS SHALL BE KEPT MOWN BELOW A HEIGHT OF 15" AND THE OUTLET SHOULD BE CHECKED FOR CLOGGING.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH STRAW AND SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE IN ACCORDANCE TO STANDARD AND SPECIFICATION 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ANY FERTILIZER AND LIME APPLICATIONS SHALL BE IN ACCORDANCE WITH SOIL TEST RESULTS. ALL SEEDED AREAS WILL BE STRAW MULCHED TO PROTECT AGAINST RILL EROSION AND TO PRESERVE SOIL MOISTURE THAT WILL ENHANCE SEED GERMINATION. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.

STORMWATER RUNOFF CONSIDERATIONS

CALCULATIONS INDICATE THAT THERE WILL BE A NET INCREASE IN POLLUTANTS AND RUNOFF VOLUME AS A RESULT OF THE THE IMPERVIOUS SURFACES PROPOSED WITH THIS DEVELOPMENT. IN PARTICULAR, THE VIRGINIA RUNOFF REDUCTION METHODOLOGY HAS BEEN UTILIZED TO QUANTIFY THE CHNAGES, AND A WET POND SHALL BE PROVIDED FOR STORMWATER MANAGEMENT. INITIALLY INSTALLED AS A TEMPORARY SEDIMENT BASIN, THE BASIN SHALL BE CONSTRUCTED TO THE FINAL BMP SPECIFICATIONS AND INCLUDES BOTH AN AQUATIC AND SAFETY BENCH. IN ADDITION, THE POND HAS BEEN SIZED TO TREAT AND DETAIN ALL INCREASES IN RUNOFF FROM THE PROPOSED DEVELOPED AT REDUCED, PRE-DEVELOPED RATES. REFER TO THE BMP PLAN FOR BMP LOADING, DESIGN VOLUME SIZING, ROUTING CALCULATIONS, DESIGN AND SPECIFICATION INFORMATION.

MAINTENANCE

1. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.
2. THE CONSTRUCTION ENTRANCE SHALL BE CHECKED DAILY FOR SOIL BUILDUP. IF THE ENTRANCE BECOMES CLOGGED WITH SOIL AND FAILS TO PREVENT TRANSPORTATION OF SOIL ONTO THE ROADWAY, ADDITIONAL STONE, REPLACEMENT OF STONE, OR A WASH-RACK MAY BE REQUIRED.
3. SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.
4. DIVERSION DIKES SHALL BE INSPECTED AFTER EVERY STORM AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, OUTLET, OR SEDIMENT TRAPPING FACILITY AS NECESSARY. ONCE EVERY TWO WEEKS, WHETHER A STORM EVENT HAS OCCURRED OR NOT, THE MEASURE SHALL BE INSPECTED AND REPAIRS MADE IF NEEDED. DAMAGES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH WORKING DAY.
5. STORMWATER CONVEYANCE CHANNELS:
   - 5.1. GRASS LINED CHANNELS - DURING THE INITIAL ESTABLISHMENT, GRASS LINED CHANNELS SHOULD BE REPAIRED IMMEDIATELY AND RE-ESTABLISHED IF NECESSARY. AFTER GRASS HAS BECOME ESTABLISHED, THE CHANNEL SHOULD BE CHECKED PERIODICALLY TO DETERMINE IF THE GRASS IS WITHSTANDING FLOW VELOCITIES WITHOUT DAMAGE. IF THE CHANNEL IS TO BE MOWED, IT SHOULD BE DONE IN A MANNER THAT IT WILL NOT DAMAGE THE GRASS.
   - 5.2. RIPRAP-LINED CHANNELS - RIPRAP LINED CHANNELS SHOULD BE CHECKED PERIODICALLY TO ENSURE THE SCOUR IS NOT OCCURRING BENEATH FABRIC UNDERLINING OF THE RIPRAP LAYER. THE CHANNEL SHOULD ALSO BE CHECKED TO DETERMINE THE STONES ARE NOT DISLODGED BY LARGE FLOWS.
   - 5.3. IF SEDIMENT IS DEPOSITED IN A GRASS-LINED CHANNEL, IT SHOULD BE REMOVED PROMPTLY TO PREVENT DAMAGE TO THE GRASS. SEDIMENT DEPOSITED IN A RIPRAP CHANNEL SHOULD BE REMOVED WHEN IT REDUCES THE CAPACITY OF THE CHANNEL.
6. CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EVERY RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE-HALF OF THE ORIGINAL HEIGHT OF THE MEASURE. REGULAR INSPECTIONS SHALL BE MADE TO INSURE THE CENTER OF EACH DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHOULD BE CORRECTED IMMEDIATELY.
7. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
8. ALL RUNOFF SHALL BE DIRECTED INTO THE SEDIMENT BASIN THROUGHOUT CONSTRUCTION AND UNTIL THE SITE IS FULLY STABILIZED. REFER TO THE BMP PLAN FOR CONVERSION INTO THE PERMANENT FACILITY.
9. A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS REQUIRING PERMANENT SEEDING.
10. MAINTAIN PERMANENT MAINTENANCE ACCESS TO THE FOREBAY AREAS. DEMARCATION MARKERS SHOULD BE INSTALLED INTO THE FORBAY AREAS TO INDICATE SEDIMENT CLEANOUT LEVELS.

CALCULATIONS

PLEASE REFER TO THE DETAILS, STORM SEWER AND HYDRAULIC CALCULATIONS FOR THE PERFORMANCE OF THE STORM SEWER, DITCHES, AND SEDIMENT BASIN. ALSO REFER TO THE WATER QUALITY CALCULATIONS FOR COMPLIANCE WITH THE VRRM REGULATIONS, INCLUDING THE ACCOMPANYING WET POND SPECIFICATIONS, SPECIFICATION # 14, EARTHEN BERM CONSTRUCTION, FOREBAY SIZING AND PLANTING SCHEDULE.

SEQUENCE OF CONSTRUCTION

1. CONTRACTOR INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION, CLEAN WATER DIVERSION AS FIRST STEP IN CONSTRUCTION.
2. CLEARING AND GRUBBING SHALL FIRST BE LIMITED TO THAT NECESSARY TO INSTALL PERIMETER CONTROL DEVICES. THE TEMPORARY SEDIMENT BASIN, EARTHEN BERM, AND RISER.
3. INSTALL ADDITIONAL PERIMETER CONTROLS: SUCH AS SILT FENCE, SUPER SILT FENCE AND DIVERSION DIKES.
4. SEDIMENT BASIN SHALL BE MADE FUNCTIONAL PRIOR TO ANY ONSITE GRADING OR GRUBBING OPERATIONS.
5. CONTRACTOR SHALL COORDINATE INSPECTIONS, AS REQUIRED BY THE THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO SITE CLEARING AND BULK GRADING OPERATIONS.
6. CLEAR AND GRUB THE REMAINDER OF THE SITE TO BEGIN THE EARTHWORK OPERATIONS AS NECESSARY TO ACHIEVE FINAL GRADES.
7. SOIL STOCKPILES SHALL BE LOCATED IN AREAS THAT WILL NOT INTERFERE WITH CONSTRUCTION PHASES AND AT LEAST 15 FEET AWAY FROM AREAS OF CONCENTRATED FLOWS OR PAVEMENT. THE SIDE SLOPES OF THE STOCKPILE WILL BE ROUGHENED BY EQUIPMENT TRACKING; AND WILL NOT EXCEED 2:1 AND SHALL HAVE SILT FENCE INSTALLED ALONG THE PERIMETER TOE.
8. DENUDED AREAS SHALL DRAIN TO AN APPROVED EROSION CONTROL MEASURE AT ALL TIMES DURING CONSTRUCTION.
9. INSTALL STORM SEWER INLETS, PIPES AND CULVERTS ENSURING THAT ALL DRAIN TO AN APPROVED SEDIMENT TRAPPING DEVICE AT ALL TIMES.
10. LIME, FERTILIZE AND APPLY TEMPORARY OR PERMANENT SEEDING TO ALL DENUDED AREAS IMMEDIATELY AFTER ACHIEVING FINAL GRADES.
11. AFTER SITE HAS REACHED SUBGRADE CONDITIONS, INSTALL UTILITIES AND BEGIN ACCESS DRIVE, PARKING LOT AND LOADING AREA CONSTRUCTION.
12. AFTER THE SITE IS FULLY STABILIZED, AND PRIOR TO APPLYING TOPCOAT ASPHALT TO THE PAVED AREAS, OBTAIN APPROVAL FROM THE EROSION CONTROL INSPECTOR TO CONVERT SEDIMENT BASIN TO THE PERMANENT SWM/BMP FACILITY. SEE CONVERSION DETAILS AND SPECIFICATIONS.
13. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN FOURTEEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
14. AFTER SITE IS STABILIZED AND PERMISSION IS OBTAINED FROM THE EROSION CONTROL INSPECTOR, CONVERT THE SEDIMENT BASIN TO THE PERMANENT WET POND FACILITY. INSTALL 6" ORIFACE, AS SPECIFIED.
15. ENCURE THAT FOREBAY AREAS ARE GRADED TO CREATE A MINIMUM OF 1 FOOT OF SUMP ADJACENT TO THE INLET SLOT
16. REMOVE SILT FENCING, INLET PROTECTION AND OTHER REMAINING EROSION CONTROL MEASURES.

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
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REVISIONS

DATE: Sept. 19, 2014

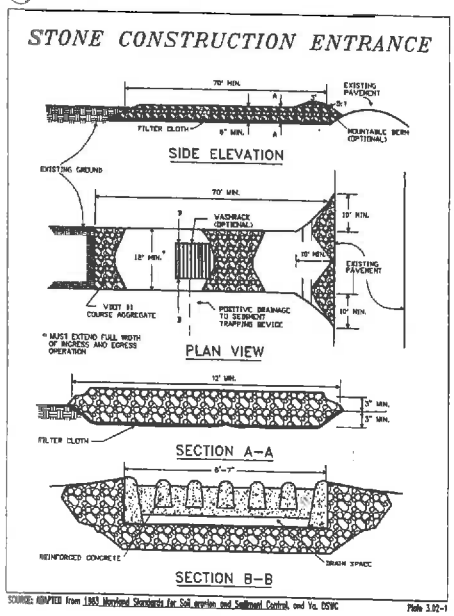
SCALE: N/A

CONTOUR INTERVAL: N/A

EROSION CONTROL NARRATIVE
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER: 5572

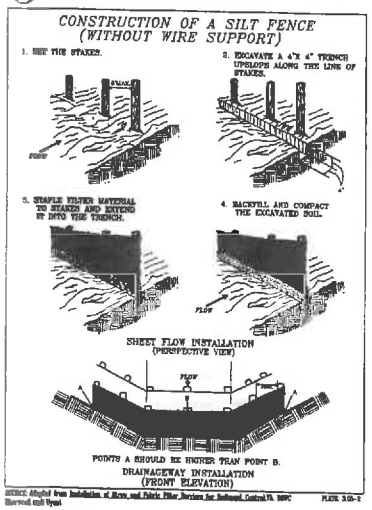
CE CONSTRUCTION ENTRANCE



SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC

Plate 3.02-1

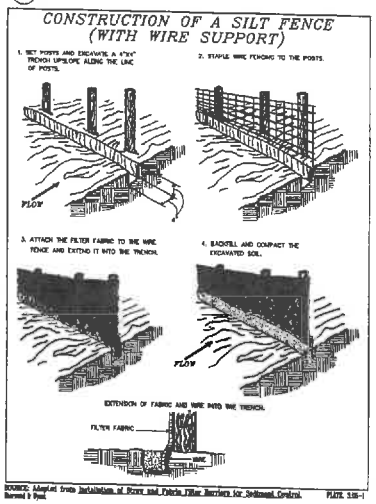
SF SILT FENCE



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control VA. DSWC Harwood and Wyatt

PLATE 3.05-1

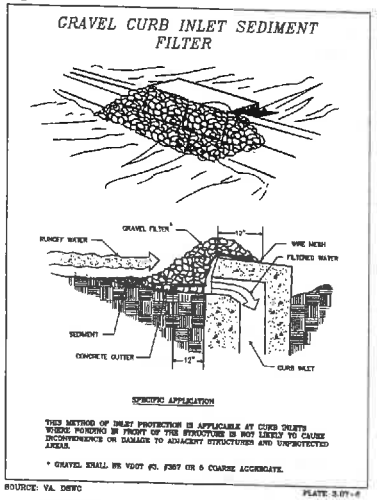
SSF SUPER SILT FENCE



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control. Harwood & Wyatt

PLATE 3.05-1

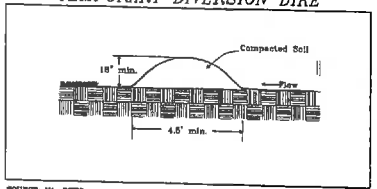
IP INLET PROTECTION



SOURCE: VA. DSWC

PLATE 3.07-1

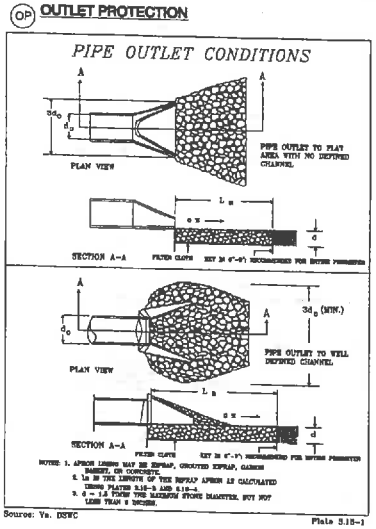
DD DIVERSION DIKE



SOURCE: VA. DSWC

PLATE 3.09-1

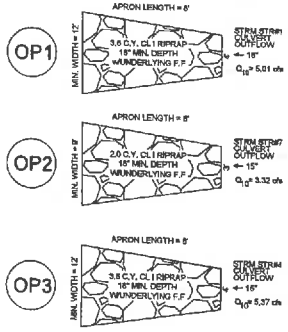
OP OUTLET PROTECTION



Source: Va. DSWC

Plate 3.18-1

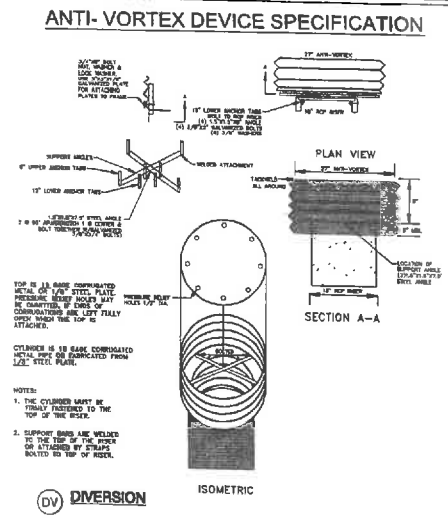
OUTLET PROTECTION SPECIFICATIONS



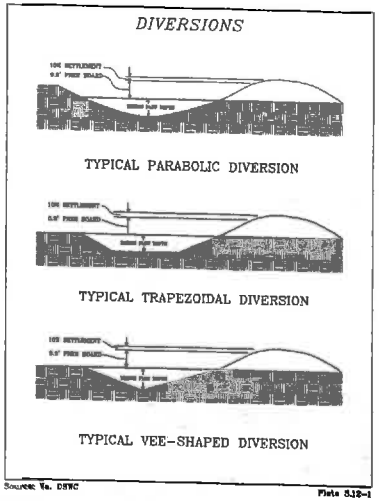
MAINTENANCE LOG:

MAJOR GRADING ACTIVITIES	DATE	STABILIZED CONSTRUCTION AREAS	DATE	MAINTENANCE OF CONTROLS /ADDITIONS	DATE	RAINFALL	WEEKLY INSPECTIONS

ANTI- VORTEX DEVICE SPECIFICATION



DV DIVERSION



Source: Va. DSWC

Plate 3.12-1

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REVISIONS

DATE: Sept. 19, 2014

SCALE: N/A

CONTOUR INTERVAL: N/A

EROSION CONTROL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
PROFILES
NELSON COUNTY, VIRGINIA

FILE NUMBER: 9572

SHEET: 13 of 16

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
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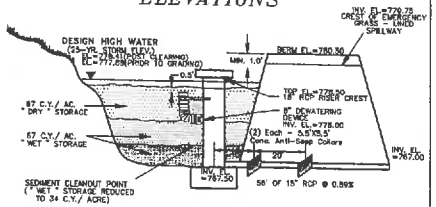
PROFESSIONAL ENGINEER

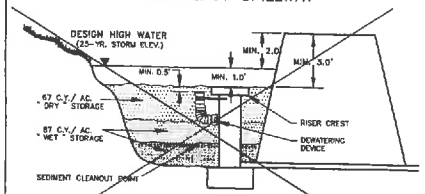
(SB) SEDIMENT BASIN

SEDIMENT BASIN SCHEMATIC ELEVATIONS



BASIN SHALL BE CONSTRUCTED TO PERMANENT SPECIFICATIONS

DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



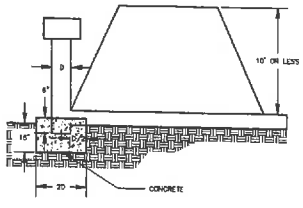
DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY (RISER PASSES 25-YR. EVENT)

SOURCE: VA. DSWC

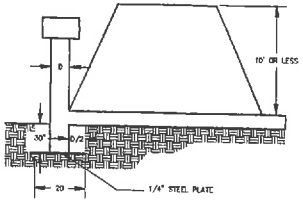
PLATE. 3.14-2

RISER PIPE BASE CONDITIONS FOR EMBANKMENTS LESS THAN 10' HIGH

CONCRETE BASE FOR EMBANKMENT 10' OR LESS IN HEIGHT



STEEL BASE FOR EMBANKMENT 10' OR LESS IN HEIGHT



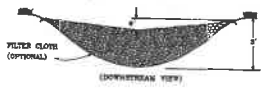
SOURCE: VA. DSWC

PLATE. 3.14-14

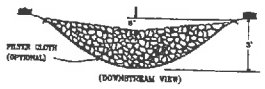
(CD) CHECK DAM

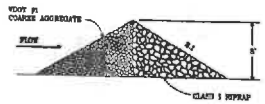
ROCK CHECK DAM

2 ACRES OR LESS OF DRAINAGE AREA:



2-10 ACRES OF DRAINAGE AREA:





SOURCE: VA. DSWC

PLATE. 3.20-1

SPACING BETWEEN CHECK DAMS

L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

SOURCE: VA. DSWC

PLATE. 3.20-2

(PS) PERMANENT SEEDING MIXTURES FOR THE PIEDMONT AREA

TABLE 25	TOTAL LBS. PER ACRE
MINIMUM CARE LAWN - COMMERCIAL OR RESIDENTIAL	175-200 LBS.
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE	95-100%
- IMPROVED PERENNIAL RYE GRASS	0-5%
- KENTUCKY BLUEGRASS	0-5%
HIGH MAINTENANCE LAWN	200-250 LBS.
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE	100%
GENERAL SLOPE (3:1 OR LESS)	
- KENTUCKY 31 FESCUE	128 LBS.
- RED TOP GRASS	2 LBS.
- SEASONAL NURSE CROP*	20 LBS.
LOW-MAINTENANCE SLOPE (STEEPER THAN 3:1)	
- KENTUCKY 31 FESCUE	106 LBS.
- RED TOP GRASS	2 LBS.
- SEASONAL NURSE CROP*	20 LBS.
- CROWN VETCH**	20 LBS.
	TOTAL 150 LBS.

*USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW.

FEBRUARY 16TH THROUGH APRIL 30TH..... ANNUAL RYE
MAY 1ST THROUGH AUGUST 15TH..... FOXTAIL MILLET
AUGUST 16TH THROUGH OCTOBER 31ST..... ANNUAL RYE
NOVEMBER 1ST THROUGH FEBRUARY 15TH..... ANNUAL RYE

** SUBSTITUTE SERICEA LESPEDEZA FOR CROWN VETCH EAST OF FARMVILLE, VA (MAY THROUGH SEPTEMBER USE HULLED SERICEA, ALL OTHER PERIODS, USE UNHULLED SERICEA.) IF FLATPEA IS USED IN LIEU OF CROWN VETCH, INCREASE RATE TO 30 LBS./ACRE. ALL LEGUME SEED MUST BE PROPERLY INNOCULATED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW MAINTENANCE MIX DURING WARMER SEEDING PERIODS; ADD 10- 20 LBS./ACRE IN MIXES.

(PS) PERMANENT SEEDING FERTILIZATION AND MAINTENANCE

TABLE 24
Maintenance Fertilization for Permanent Seedings
Use Soil Test Recommendation or Rates Shown Below

Seeding Mixture	Formulation	Lbs. per 1000 sf	Lbs. per Acre	Time	Mowing
Tall fescue makes up 70% or more of cover.	10-10-10 or 30-10-10	500 400	11.5 9.2	Yearly, or as needed fall	*Not closer than 3" if occasional mowing is desired.
Crownvetch Service lespedeza Birdsfoot trefoil	0-20-0	400	9.2	Spring the year following establishment and every 4-5 years thereafter.	Do not mow crownvetch
Fairly uniform stand of Tall Fescue & Service lespedeza, or Birdsfoot Trefoil.	5-10-10	500	11.5	Fall the year following establish- ment and every 4-5 years thereafter.	Not required, not closer than 4" if occasional mowing is desired, and then in fall after seed has matured.
Weeping Lovegrass & Service lespedeza fairly uniform plant distribution	5-10-10	500	11.5	Spring the year following establishment and every 3-4 years thereafter.	Not required, not closer than 4" if occasional mowing is desired, and fall after serices has matured.
Red & chewings fescue, Kentucky bluegrass, hard fescue mixture:	20-10-10 20-10-10	250 100	5.8 2.3	September, 30 days later Decembrer, May 20-June-30, if needed,	Mow no closer than 2" for red fescue and Ky bluegrass; and closer than 3" for fescue.

SUGGESTED TEMPORARY SEEDING MIXTURE

FERTILIZER: 10-20-10
1,000 LBS/ACRE
SEPTEMBER-FEBRUARY 15: 80% ANNUAL RYE & 50% WINTER RYE 100 LBS/ACRE FEBRUARY 16-APRIL 30: ANNUAL RYE 100 LBS/ACRE MAY-AUGUST: GERMAN MILLET 60 LBS/ACRE OTHER OPTIONS EXIST. SEE VA EROSION AND SEDIMENT CONTROL HANDBOOK.

SUGGESTED PERMANENT SEEDING MIXTURE

LIME: 2 TONS/ACRE FERTILIZER:
10-20-10 1,000 LBS/ACRE
MARCH-MAY 15: KENTUCKY 31 FESCUE 250 LBS/ACRE, ANNUAL RYE 20 LBS/ACRE MAY 16-AUGUST 15: KENTUCKY 31 FESCUE 250 LBS/ACRE, FOXTAIL MILLET 20 LBS/ACRE AUGUST 16-OCTOBER: KENTUCKY 31 FESCUE 250 LBS/ACRE, ANNUAL RYE 20 LBS/ACRE NOVEMBER-FEBRUARY: KENTUCKY 31 FESCUE 200 LBS/ACRE, WINTER RYE 20 LBS/ACRE

(TS) TEMPORARY SEEDING MIXTURES FOR THE PIEDMONT AREA

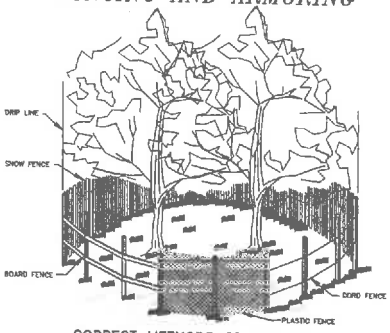
TABLE 26
TEMPORARY SEEDINGS BY RATES, DEPTHS, AND DATES

Species (1)	Seeding Rate Per acre	Seeding Rate Lbs/1000 Sq. ft	Planting depth (1) (inches)	Seeding zones (2) and Seeding Date (3) 7a and 7b 3/1-4/30	7a and 7b 4/1-8/14	7a and 7b 8/15-11/30	8b 3/1-4/30	8b 4/1-8/14	8b 8/15-11/15	6a and 6b 3/15-8/31	6a and 6b 9/1-7/31	6a and 6b 8/1-10/31
Choose any: Barley	2.8 bu.	3.90	1-2	X	-	8/1-10/15	X	-	8/1-10/15	X	-	8/1-10/1
Oats	3 bu.	2.21	1-2	X	-	-	X	-	-	X	-	-
Rye (4)	2.5 bu.	3.22	1-2	X	-	X	X	-	-	X	-	X
Barley or Rye Plus Foxtail millet (5)	150 lbs.	3.45	1	X X	X X	10/15 X	X X	X X	10/15 X	X X	X X	10/1 X
Weeping lovegrass (6)	4 lbs.	0.09	1/4-1/2	-	X	-	-	X	-	-	X	-
Annual ryegrass	50 lbs.	1.15	1/4-1/2	X	-	11/1	X	-	11/1	X	-	8/15
Millet (7)	50 lbs.	1.15	1/2	-	X	-	-	X	-	-	X	-

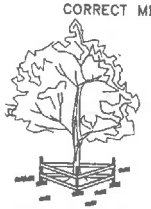
(1) Applicable on slopes of 3:1 or flatter
(2) Refer to figure A - Adapted from USDA, ARS Miscellaneous Publication #1475, January 1980
(3) Between fall and spring seeding dates, use mulch only if ground is frozen and remove when thawed
(4) May be used as a nurse crop for late fall/early winter permanent seedings, add 50 lbs/ac. to the permanent seeding mixture
(5) Maryland State Highway Administration Temporary Seed Mix
(6) May be used as a nurse crop for mid-summer permanent seedings. Add 2 lbs/ac to permanent seed mix.
(7) May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs/ac. to the permanent seeding mix.

(TP) TREE PROTECTION

FENCING AND ARMORING



CORRECT METHODS OF TREE FENCING



TRIANGULAR BOARD FENCE

CORRECT TRUNK ARMORING

Source: Va. DSCW

Plate 3.38-2

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1968
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0555 - FAX 434-296-4620 - EMAIL INFO@ROUDABUSH.COM

REVISIONS

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

EROSION CONTROL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
14 of 16

Christopher C. McBijon
Lic. No. 031672

Afton Mountain — VA-Albemarle County 25-Year Duration=114 min, Inten=1.69 in/hr
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Summary for Pond 9P: Sediment Basin-Prior to Grading

```
Inflow Area =   8.400 ac, Inflow Depth =  1.92"  for 25-Year event
Inflow      =   8.57 cfs @  0.20 hrs, Volume=      1.345 af
Outflow     =   0.00 cfs @  0.00 hrs, Volume=      0.000 af, Atten= 100%, Lag= 0.0 min
Primary     =   0.00 cfs @  0.00 hrs, Volume=      0.000 af
Secondary   =   0.00 cfs @  0.00 hrs, Volume=      0.000 af
```

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 777.48' @ 2.10 hrs Surf.Area= 22,107 sf Storage= 58,600 cf
Flood Elev= 780.50' Surf.Area= 24,604 sf Storage= 119,909 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	119,909 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	25	0	0
772.00	1,839	1,864	1,864
774.00	6,248	7,087	9,581
776.00	15,214	21,462	31,013
778.00	24,539	39,753	70,766
780.00	24,604	49,143	119,909

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	18.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	778.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	779.75'	12.0' long x 18.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=770.00' (Free Discharge)
└1=Culvert (Passes 0.00 cfs of 10.93 cfs potential flow)
└2=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=770.00' (Free Discharge)
└3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Afton Mountain — VA-Albemarle County 25-Year Duration=114 min, Inten=1.69 in/hr
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Summary for Pond 9P: Sediment Basin Post Grading

```
Inflow Area =   8.400 ac, Inflow Depth =  1.92"  for 25-Year event
Inflow      =   8.57 cfs @  0.20 hrs, Volume=      1.345 af
Outflow     =   0.00 cfs @  0.00 hrs, Volume=      0.000 af, Atten= 100%, Lag= 0.0 min
Primary     =   0.00 cfs @  0.00 hrs, Volume=      0.000 af
Secondary   =   0.00 cfs @  0.00 hrs, Volume=      0.000 af
```

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs / 2
Peak Elev= 777.53' @ 2.10 hrs Surf.Area= 13,671 sf Storage= 58,604 cf
Flood Elev= 780.50' Surf.Area= 26,433 sf Storage= 111,264 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	111,264 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	1,078	0	0
772.00	3,121	4,199	4,199
774.00	5,962	9,083	13,282
775.00	10,240	8,101	21,383
776.00	12,110	11,175	32,558
778.00	16,151	28,261	60,819
779.80	20,131	32,654	93,473
780.00	26,199	4,633	98,106
780.50	26,433	13,158	111,264

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	18.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	778.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	779.75'	12.0' long x 18.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=770.00' (Free Discharge)
└1=Culvert (Passes 0.00 cfs of 10.93 cfs potential flow)
└2=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=770.00' (Free Discharge)
└3=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Afton Mountain — VA-Albemarle County 100-Year Duration=114 min, Inten=2.24 in/hr
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Summary for Subcatchment 3S: Pre Developed Drainage

Detention Computations are based on Offsite Contributing and Onsite Disturbed Areas. Pre-Dev. Analysis is established from similar contributing Watershed to same point of Analysis.

Runoff = 4.10 cfs @ 0.34 hrs, Volume= 0.644 af, Depth= 1.07"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
VA-Albemarle County 100-Year Duration=114 min, Inten=2.24 in/hr

Area (ac)	C	Description
7.250	0.25	Developed Portion of Site

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0					Direct Entry,

Afton Mountain — VA-Albemarle County 100-Year Duration=20 min, Inten=5.29 in/hr
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Events for Subcatchment 3S: Pre Developed Drainage

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	5.39	0.150	0.25
5-Year	6.39	0.178	0.29
10-Year	7.19	0.200	0.33
25-Year	8.11	0.225	0.37
50-Year	8.76	0.243	0.40
100-Year	9.59	0.266	0.44

Onsite Watershed Pre-developed @ Tc = 20 Min.

Afton Mountain — VA-Albemarle County 100-Year Duration=114 min, Inten=2.24 in/hr
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Events for Subcatchment 3S: Pre Developed Drainage

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	1.71	0.289	0.45
5-Year	2.13	0.336	0.55
10-Year	2.56	0.408	0.66
25-Year	3.06	0.484	0.80
50-Year	3.61	0.581	0.81
100-Year	4.10	0.644	1.07

Onsite Watershed Pre-developed @ Critical Storm Duration

Virginia Runoff Reduction Method New Development Worksheet -- v2.7 Revised April 2013

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.63	0.00	0.00	0.63	6.54
Turf (acres)	0.00	5.27	0.00	0.00	5.77	54.67
Impervious (acres)	0.00	3.74	0.00	0.00	3.74	38.80
					9.64	100.00

Site Rv	0.44
Post Development Treatment Volume (ft3)	16792
Post Development TP Load (lb/yr)	10.55
Post Development TN Load (lb/yr)	75.46
Total TP Load Reduction Required (lb/yr)	6.60

Total Runoff Volume Reduction (ft³)	0
Total TP Load Reduction Achieved (lb/yr)	7
Total TN Load Reduction Achieved (lb/yr)	13.77
Adjusted Post Development TP Load (lb/yr)	3.33
Remaining Phosphorous Load Reduction (lb/yr) Required	0.00

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	3.45	0.00	0.00	0.00	0.00	3.45
Impervious (acres)	3.72	0.00	0.00	0.00	0.00	3.72
						7.17

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	7.22	0.00	0.00	0.00	0.00	7.22
TN Load Red. (lb/yr)	13.77	0.00	0.00	0.00	0.00	13.77

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	0.00
Turf (acres)	0.00	3.45	0.00	0.00	3.45	48.12
Impervious (acres)	0.00	3.72	0.00	0.00	3.72	51.88
					7.17	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
13.c. Wet Pond #2 (Spec #14)	Impervious:	3.72	
	Turf (Pervious):	3.45	

Total Impervious Cover Treated (acres)	3.72
Total Turf Area Treated (acres)	3.45
Total TP Load Reduction Achieved in D.A. A (lb/yr)	7.22
Total TN Load Reduction Achieved in D.A. A (lb/yr)	13.77

Channel and Flood Protection

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		3.00	3.60	5.00
D.A. A CN	80	80	80	80
D.A. B CN	0	#N/A	#N/A	#N/A
D.A. C CN	0	#N/A	#N/A	#N/A
D.A. D CN	0	#N/A	#N/A	#N/A
D.A. E CN	0	#N/A	#N/A	#N/A

Afton Mountain — VA-Albemarle County 100-Year Duration=15 min, Inten=5.98 in/hr
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Summary for Subcatchment 4S: Onsite Post Developed Drainage

Existing Farm Pond ignored in computations. Results are conservative

Runoff = 26.88 cfs @ 0.25 hrs, Volume= 0.507 af, Depth= 0.90"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
VA-Albemarle County 100-Year Duration=15 min, Inten=5.98 in/hr

Area (ac)	C	Description
0.080	0.25	Undisturbed
3.450	0.35	Yard - grass
3.720	0.95	Walks/Pavement/Gravel Areas
7.250	0.63	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0					Direct Entry,

Afton Mountain — VA-Albemarle County 100-Year Duration=15 min, Inten=5.98 in/hr
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Events for Subcatchment 4S: Onsite Post Developed Drainage

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	18.81	0.343	0.57
5-Year	19.54	0.404	0.67
10-Year	21.83	0.453	0.75
25-Year	24.81	0.508	0.84
50-Year	26.48	0.547	0.91
100-Year	28.88	0.597	0.99

Afton Mountain — VA-Albemarle County 100-Year Duration=15 min, Inten=5.98 in/hr
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Summary for Subcatchment 5S: Offsite Contributing Area

Runoff = 3.03 cfs @ 0.00 hrs, Volume= 0.065 af, Depth= 0.72"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
VA-Albemarle County 100-Year Duration=15 min, Inten=5.98 in/hr

Area (ac)	C	Description
1.090	0.46	R/W -Adj. Portion R-1 Parcel

Afton Mountain — VA-Albemarle County 100-Year Duration=1 min, Inten=8.76 in/hr
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Events for Subcatchment 5S: Offsite Contributing Area

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
2-Year	2.62	0.004	0.05
5-Year	2.89	0.005	0.05
10-Year	3.37	0.006	0.06
25-Year	3.79	0.006	0.07
50-Year	4.07	0.007	0.07
100-Year	4.43	0.007	0.09

Afton Mountain — VA-Albemarle County 100-Year Duration=111 min, Inten=2.28 in/hr
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Summary for Pond 2P: Proposed Pond Permanent Wet Pond Specifications

```
Inflow Area =   8.340 ac, Inflow Depth =  2.87"  for 100-Year event
Inflow      =  12.13 cfs @  0.28 hrs, Volume=      1.856 af
Outflow     =   9.54 cfs @  1.86 hrs, Volume=      1.011 af, Atten= 21%, Lag= 95.0 min
Primary     =   9.54 cfs @  1.86 hrs, Volume=      1.011 af
Secondary   =   0.00 cfs @  0.00 hrs, Volume=      0.000 af
```

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs / 2
Starting Elev= 778.00' Surf.Area= 12,110 sf Storage= 32,558 cf
Peak Elev= 779.36' @ 1.86 hrs Surf.Area= 19,150 sf Storage= 54,798 cf (22,197 cf above start)
Flood Elev= 780.50' Surf.Area= 26,433 sf Storage= 111,264 cf (78,706 cf above start)

Plug-Flow detention time= 131.4 min calculated for 0.283 af (14% of inflow)
Center-of-Mass det. time= 44.9 min (107.2 - 62.3)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	111,264 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	1,078	0	0
772.00	3,121	4,199	4,199
774.00	5,962	9,083	13,282
775.00	10,240	8,101	21,383
776.00	12,110	11,175	32,558
778.00	16,151	28,261	60,819
779.80	20,131	32,654	93,473
780.00	26,199	4,633	98,106
780.50	26,433	13,158	111,264

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	18.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	778.00'	6.0" Vert. Orifice/Grate C= 0.600
#3	Device 1	778.50'	18.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Secondary	779.75'	12.0' long x 18.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=9.54 cfs @ 1.86 hrs HW=779.36' (Free Discharge)
└1=Culvert (Passes 9.54 cfs of 26.36 cfs potential flow)
  ├2=Orifice/Grate (Orifice Controls 1.67 cfs @ 8.49 fps)
  └3=Orifice/Grate (Orifice Controls 7.87 cfs @ 4.45 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=778.00' (Free Discharge)
└4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Afton Mountain — VA-Albemarle County 100-Year Duration=111 min, Inten=2.28 in/hr
Prepared by Hewlett-Packard Company — Printed 9/9/2014
HydroCAD® 10.00 s/n 08126 © 2013 HydroCAD Software Solutions LLC

Events for Pond 2P: Proposed Pond

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Storage (cubic-feet)
2-Year	5.10	1.25	1.25	0.00	777.89	56,729
5-Year	6.34	1.40	1.40	0.00	778.44	58,147
10-Year	7.57	3.69	3.69	0.00	778.77	73,613
25-Year	8.14	5.98	5.98	0.00	779.00	78,033
50-Year	10.39	6.38	6.38	0.00	779.13	80,358
100-Year	12.13	9.54	9.54	0.00	779.36	84,798

Post-Dev. Routing @ Actual Critical Storm Duration

Afton Mountain — VA-Albemarle County 100-Year Duration=114 min, Inten=2.24 in/hr
Prepared by Hewlett-Packard Company — Printed 9/9/2014
HydroCAD® 10.00 s/n 08126 © 2013 HydroCAD Software Solutions LLC

Events for Pond 2P: Proposed Pond

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Storage (cubic-feet)
2-Year	4.53	1.18	1.18	0.00	777.42	57,954
5-Year	5.83	1.33	1.33	0.00	778.25	64,676
10-Year	6.73	2.07	2.07	0.00	778.62	71,168
25-Year	8.13	5.38	5.38	0.00	778.90	76,171
50-Year	9.28	7.51	7.51	0.00	779.03	78,813
100-Year	10.83	8.78	8.78	0.00	779.21	81,828

Post-Dev. Routing Onsite Watershed @ Critical Storm Duration

Commonwealth of Virginia — Christopher C. Mulligon — Lic. No. 031672 — Professional Engineer

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0205 - FAX 434-296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS

DATE Sept. 18, 2014

SCALE N/A

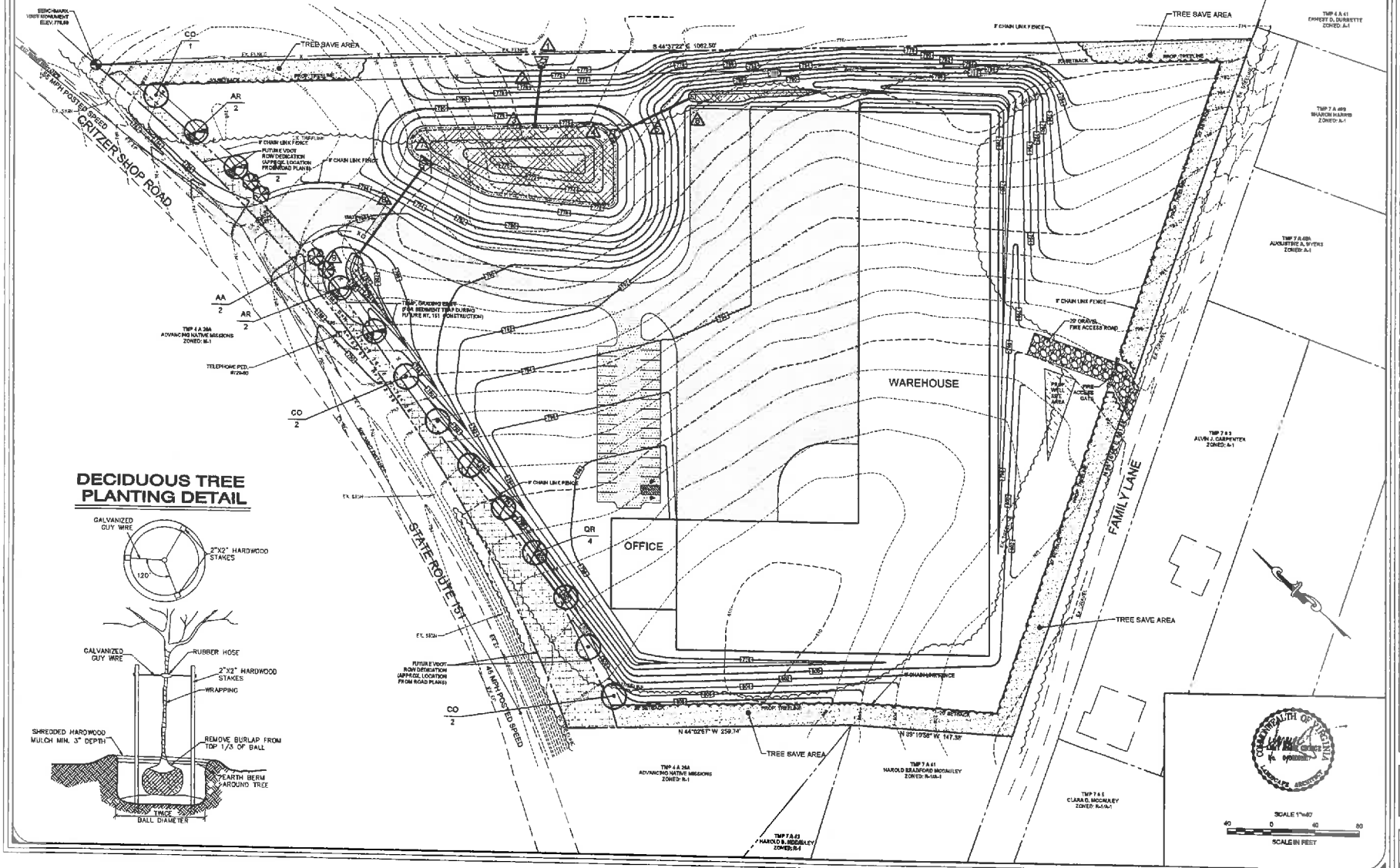
CONTOUR INTERVAL N/A

SWM NOTES AND DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER 8572

PLANT LIST

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
4	AR	Acer rubrum "October Glory"	OCTOBER GLORY RED MAPLE	1.5" CAL.	B & B
4	AA	Amelanchier arborea	DOWNY SERVICEBERRY	1.5" CAL.	B & B
5	CO	Carya ovata	SHAGBARK HICKORY	1.5" CAL.	B & B
4	QR	Quercus rubra	NORTHERN RED OAK	1.5" CAL.	B & B



DECIDUOUS TREE PLANTING DETAIL

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1959
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0205 - FAX 434-977-1813 - EMAIL INFO@ROUDABUSH.COM

REVISIONS

DATE
Sept. 19, 2014

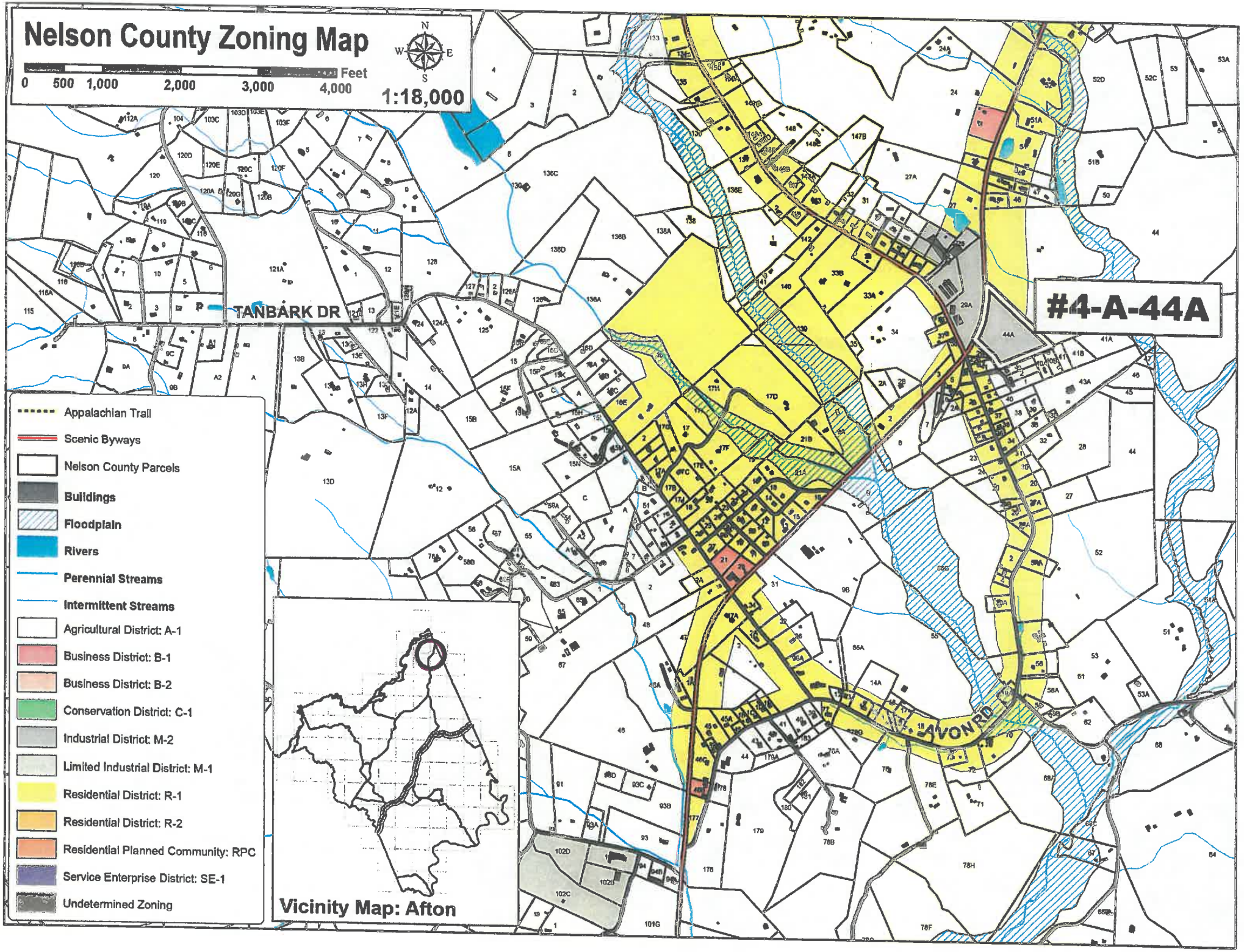
SCALE
1" = 40'

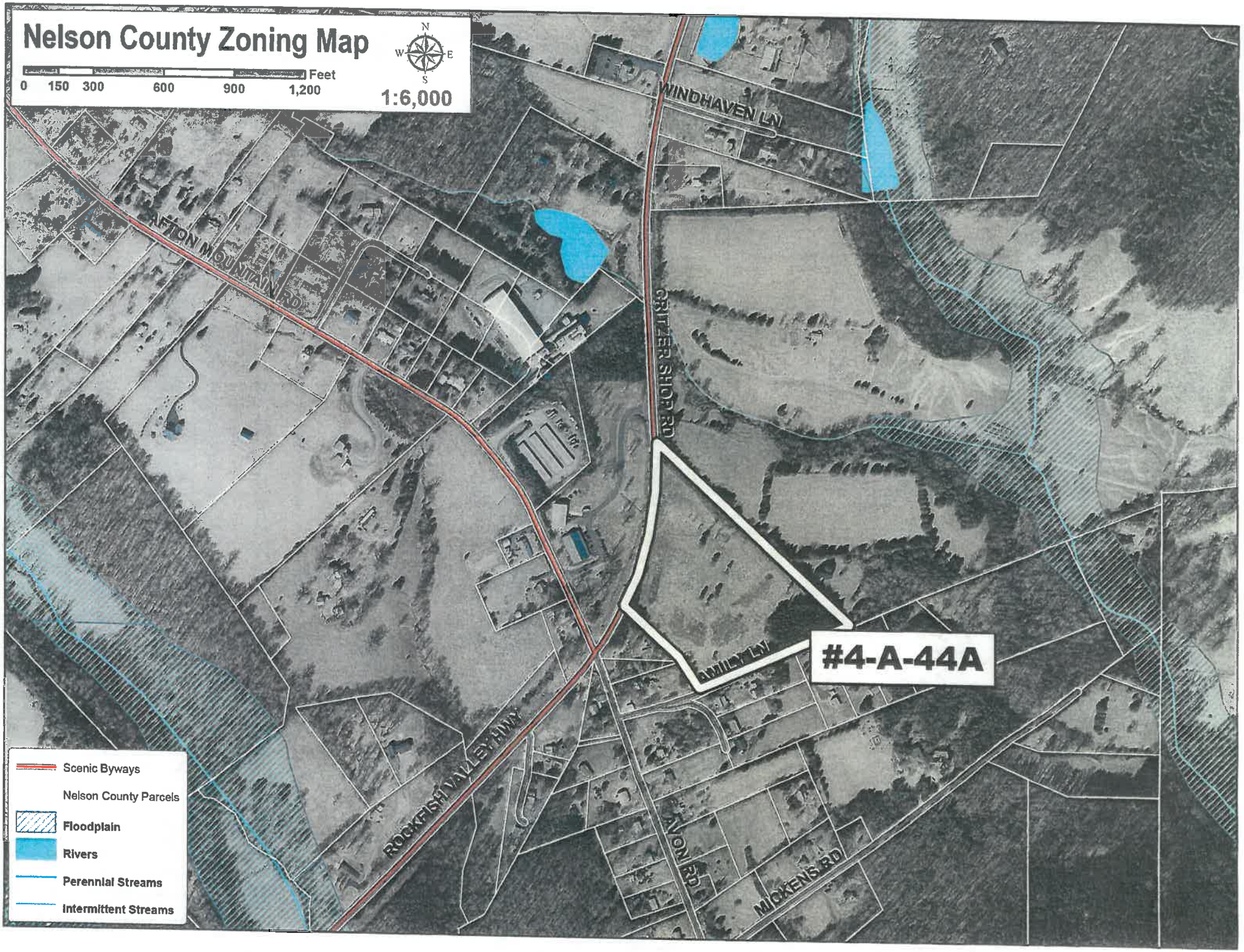
CONTOUR INTERVAL
2 Feet

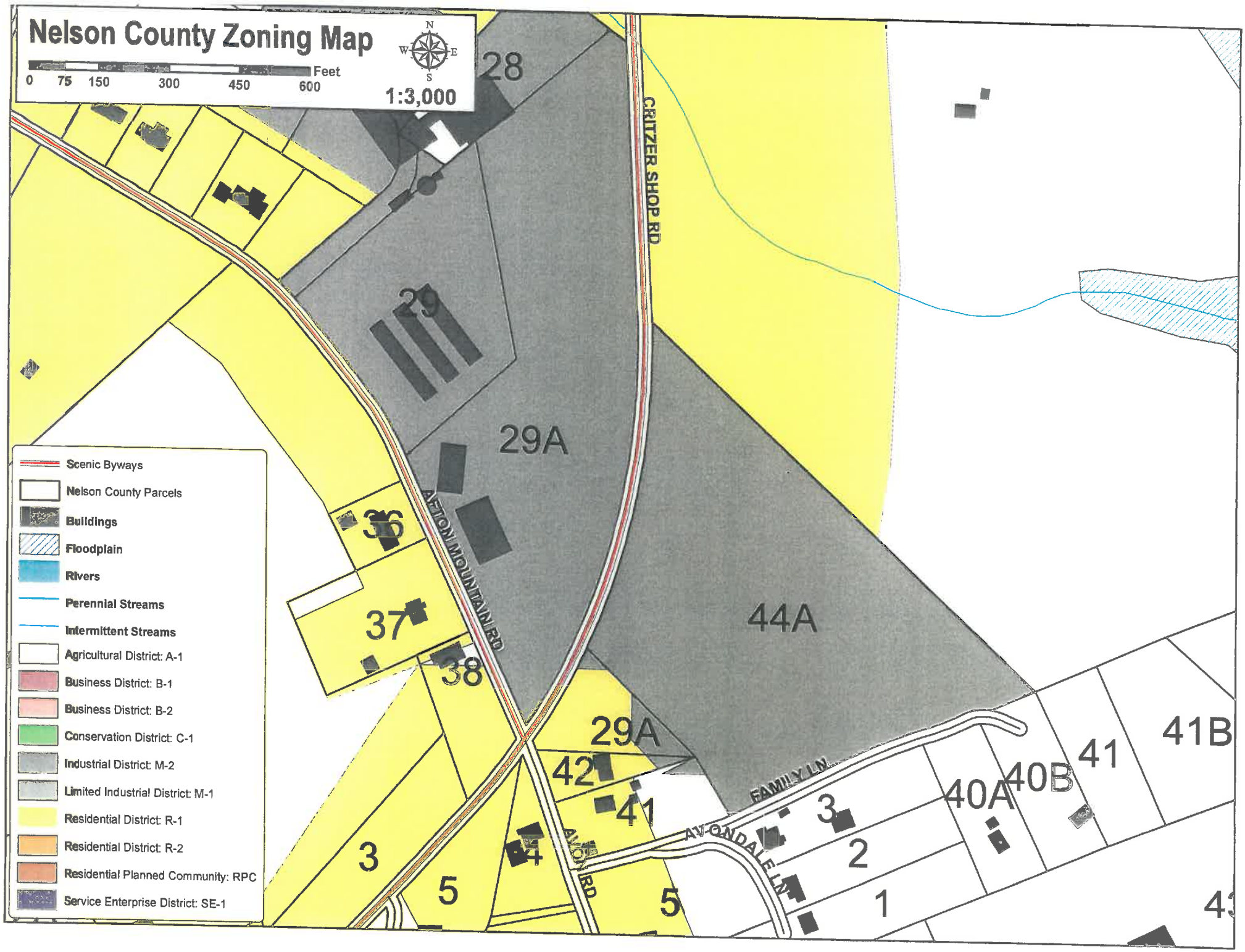
LANDSCAPING PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
16 of 16


Nelson County Zoning Map
N
W
E
S
0 500 1,000 2,000 3,000 4,000 Feet
1:18,000
TANBARK DR
AVON RD
#4-A-44A
Appalachian Trail
Scenic Byways
Nelson County Parcels
Buildings
Floodplain
Rivers
Perennial Streams
Intermittent Streams
Agricultural District: A-1
Business District: B-1
Business District: B-2
Conservation District: C-1
Industrial District: M-2
Limited Industrial District: M-1
Residential District: R-1
Residential District: R-2
Residential Planned Community: RPC
Service Enterprise District: SE-1
Undetermined Zoning
Vicinity Map: Afton


Nelson County Zoning Map
Feet
0 150 300 600 900 1,200
1:6,000
N
W
E
S
WINDHAVEN LN
AFTON MOUNTAIN RD
CRITZER SHOP RD
#4-A-44A
ROCKFISH VALLEY HWY
AVON RD
MCKENS RD
Scenic Byways
Nelson County Parcels
Floodplain
Rivers
Perennial Streams
Intermittent Streams


Nelson County Zoning Map
0 75 150 300 450 600 Feet
1:3,000
N
W E
S
Scenic Byways
Nelson County Parcels
Buildings
Floodplain
Rivers
Perennial Streams
Intermittent Streams
Agricultural District: A-1
Business District: B-1
Business District: B-2
Conservation District: C-1
Industrial District: M-2
Limited Industrial District: M-1
Residential District: R-1
Residential District: R-2
Residential Planned Community: RPC
Service Enterprise District: SE-1
CRITZER SHOP RD
AFTON MOUNTAIN RD
AVONDALE RD
AVONDALE LN
FAMILY LN
28
29
29A
36
37
38
44A
42
41
3
5
4
2
1
40A
40B
41
41B

To: Ammy George, Roudabush, Gale & Assoc., Inc.

From: Tim Padalino | Director of Planning & Zoning

Date: October 8, 2014

Subject: Site Plan Review Committee Comments

- Signage
  - Location, size, and details of all signage are not supplied as required in Major Site Plan Checklist Item T per (13-4-T).
  - These required details must be addressed as part of site plan review.

- Lighting
  - Location and type of lighting equipment, plus photometric plan, not supplied as required in Major Site Plan Checklist Item V per (13-4-V).
  - Note on cover sheet states that the project will use wall-mounted fixtures and that the lighting will be shown on the building permit plan for approval; however, these required details must be addressed as part of site plan review, not during the building permit application.
  - See (12-7-8K): "Lighting" ... "Outdoor lighting for parking and loading spaces shall be arranged to deflect glare away from adjoining properties and public streets. Sources of light on a lot shall be hooded or of directional type capable of shielding the light source from shining on adjoining property or public right-of-way."

- Landscaping & Screening
  - Additional screening is needed along Route 151 (designated Virginia Scenic Byway), per the following Zoning Ordinance provisions:
    - (12-7-8G): "minimum of fifty (50) percent of the road frontage shall be landscaped"
    - (9-2-2): "landscaping may be required within any established or required front yard setback area"
  - Screening is required adjacent to parking lot and loading area(s) per the following Zoning Ordinance provisions:
    - (13-4-CC): "parking areas shall not be located between the adjacent public right-of-way and the principal structure on the site unless topographic features or vegetation provide effective screening"

        - (12-7-8N): "landscaping shall be designed and used to screen adjoining property from storage and loading operation"
    - Other general screening considerations:
        - (9-2-1): "permitted uses may be required to be conducted ... within an area enclosed on all sides by a solid board fence or an evergreen hedge between six (6) and ten (10) feet in height"
        - (9-2-3): "sufficient area shall be provided to adequately screen permitted uses from adjacent business and residential district"
    - "Tree Save" area correlates with the minimum setback requirements (20') as required by (9-4)... are there opportunities to increase this tree save area to better "buffer" adjacent residential areas?

- Parking Spaces
    - Office use = 33 spaces required per (12-7-6e)
    - Industrial use = 1 space required for each employee at maximum shift = (?) per (12-7-6c)
    - 32 spaces provided (2 handicap spaces)
    - If any of the industrial / warehouse employees (at maximum shift) are distinct and separate from the office employees, additional spaces will be required
    - 4 "off street loading spaces" are required per (12-7-7)

- Vehicular Traffic Volume & Patterns
    - At the previous Site Plan Review Committee meeting, the applicant team stated that there will be six (6) vehicle trips per month associated with the warehouse operation. The vehicular patterns associated with the office use is currently unknown.
    - Information providing a summary of anticipated traffic patterns is requested per (13-7-B-2); this may need to be a Traffic Impact Analysis report submitted to Nelson County and VDOT.

- Required Site Improvements & Bonding Requirements
    - (13-6-1-L): required improvements must be secured through a bond furnished by the developer in an amount calculated or approved by the Planning & Zoning Director in accordance with established specifications and construction schedules
    - (13-6-1-M): plans and specifications for all required improvements to be installed shall be prepared by a licensed engineer

- Other Comments:
    - Checklist Item E: Remove "NCSA" from signature panel
    - Checklist Item M: Label Route 151 / Critzer Shop Road as a designated Virginia Scenic Byway ("feature of particular scenic significance")
    - Checklist Item N: Provide preliminary plans and elevations for buildings.
    - Checklist Item EE: Is warehouse project still planned for phased construction? If so, please specify the phasing limits and proposed timing of that phased development.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4219 CAMPBELL AVENUE
LYNCHBURG, VIRGINIA 24501
VDOT.Virginia.gov

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

June 9, 2014

VIA EMAIL: JUNE 9, 2014

Scott Dunn, AICP, PTP
Senior Project Manager
TIMMONS GROUP | www.timmons.com
1001 Boulders Parkway,
Suite 300
Richmond, VA 23225

RE: Rte 151 Nelson County Proposed Commercial Development (Avon Area)
Light Industrial Traffic Generation Analysis

Dear Mr. ~~Dunn~~ Scott

This writing is in follow up to my electronic mail communication of May 22, 2014 stating the attached supplemental traffic generation, distribution and turn lane analysis you provided to me on May 22, 2014 is acceptable. This acceptance is based on the proposed site development with the anticipated traffic of a general light industrial development with up to 30 employees, and a general office development of 10,000 sf. This analysis determined that neither a right turn lane nor a left turn lane would be warranted for a commercial entrance on Route 151. Should development of this site differ, resulting in an increase in traffic beyond the traffic generation your analysis indicated, then a new evaluation will be required.

A VDOT Land Use Permit for a commercial entrance designed in accordance with Appendix F of VDOT's Road Design Manual will be required. This design should also take into consideration the adjoining Route 151/6/638 intersection improvements. Mrs. Raina Rosado, VDOT's Project Manager (434.947.6559) can assist you with the project plans.

Please notify me if I may be of further assistance.

Sincerely,

Jeffery B. Kessler, P. E.
Area Land Use Engineer
(434) 856-8293
JefferyB.Kessler@VDOT.Virginia.gov

Attachments
CC: P. Massie Saunders, Jr.
Timothy Padalino
Raina Rosado

Kessler, Jeffery B., P.E. (VDOT)

From: Kessler, Jeffery B., P.E. (VDOT)
Sent: Thursday, May 22, 2014 12:30 PM
To: 'scott.dunn@timmons.com'
Cc: 'massie@saunderssurveys.com'; Clark, Matthew D. (VDOT)
Subject: Re: Rte 151 Nelson County Proposed Commercial Development (Avon Area)

Thank you Scott. Your evaluation is accepted. I have no further questions regarding traffic generation or turn lane determinations.

Massie, you may proceed accordingly.

Thanks all!
Jeff

Jeffery B. Kessler, P.E.
Area Land Use Engineer
VDOT - Lynchburg District
(434) 856-8293

From: Scott Dunn [mailto:scott.dunn@timmons.com]
Sent: Thursday, May 22, 2014 12:16 PM Eastern Standard Time
To: Kessler, Jeffery B., P.E. (VDOT)
Cc: Massie Saunders <massie@saunderssurveys.com>
Subject: RE: Rte 151 Nelson County Proposed Commercial Development (Avon Area)

Jeff,

Per yesterday's email, I have attached a revised sheet that includes both the light industrial and the office (the trip estimates were calculated using the rates as discussed).

Based on this summary, the site can accommodate both developments and not require auxiliary lanes.

Please review the attached and let me know if you have any questions or need additional information.

Scott

Scott Dunn, AICP, PTP
Senior Project Manager

TIMMONS GROUP | www.timmons.com
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
Office: 804.200.6955 | Fax: 804.560.1016
Mobile: 804.402.0830 | scott.dunn@timmons.com
LinkedIn: www.linkedin.com/in/wsdunn
Your Vision Achieved Through Ours

To send me .zip files or files greater than 20MB click here

Background Information

Assumed Initial Development:

General Light Industrial Development with up to 30 employees
General Office Development – 10,000 sf

Existing Traffic Data:

Route 151 AADT (2012): 8,100 vpd
Route 151 $PHV_{AM\ SB}$ = 264 vph
Route 151 $PHV_{AM\ NB}$ = 402 vph
Route 151 $PHV_{PM\ SB}$ = 457 vph
Route 151 $PHV_{PM\ NB}$ = 281vph

Site Traffic Generation Data

Land Use:

General Light Industrial (Land Use Code 110, 9th Edition)
General Office Building (Land Use Code 710, 9th Edition)

Trip Generation:

	Enter	Exit
AM Peak	26	4
PM Peak	6	22

Site Traffic Distribution

AM: 16 vph entering northbound (Assume 60% northbound, 40% southbound)
10 vph entering southbound

PM: 2 vph entering northbound (Assume 40% northbound, 60% southbound)
4 vph entering southbound

Right Turn Lane Assessment *(RTL Guidelines for 2-Lane Highway - Appendix G)*

AM: PHV Approach Total = 402 + 16 = 418 vph
PHV Right Turns = 16 vph

No Right Turn Taper/Lane Required

PM: PHV Approach Total = 281 + 2 = 283 vph
PHV Right Turns = 2 vph

No Right Turn Taper/Lane Required

Left Turn Lane Assessment *(Figure 3-10 – Appendix G)*

60 MPH Design Speed

AM: Opposing Volume = 402 + 16 = 418 vph
Left Turn Volume = 10 vph
Advancing Volume = 264 + 10 = 274 vph
% L = 10/274 = 2.7%

No Left Turn Lane Required; left turns below 5%

PM: Opposing Volume = 281 + 2 = 283 vph
Left Turn Volume = 4 vph
Advancing Volume = 457 + 4 = 461 vph
% L = 4/461 = 0.9%

No Left Turn Lane Required; left turns below 5%

94 Catbrier Circle
Afton, Va. 22920
October 20, 2014

To Whom It May Concern,

I read the article in the newspaper on October 16 about the proposed ammunitions warehouse in Nelson County and I am very concerned. My concerns are about safety, cost to our county, and about changing the character of our county. I am also concerned about the tone of the article which made the project sound inevitable.

I hope county officials are diligently seeking information about the safety of such warehouses and the activities that will take place in this particular warehouse. We should not depend on the accuracy or truth of what the company reports to us. We need other expertise on the matter. The article says that Zenith has been in touch with the regional fire marshal and law enforcement. It does not say that our county has been in touch with them. I am willing personally to pay for some expertise in the matter of safety of this enterprise. There is a fine neighborhood and a school in close proximity.

I also hope the county is thinking of the financial costs to our county. Will our fire department and law enforcement personnel need special training? Is our building inspector adequately trained to inspect such a facility? (I read on the internet that the military has difficulty finding anyone to inspect who does not have a stake in the success of the industry.) Who will be testing the discharge into the air and the septic system throughout the lifetime of the facility? What kind of traffic patterns will it create? Who will pay to ameliorate those? What about loss of property values. (I had been looking at a property in the area, but am now glad I did not make that purchase.) What about loss of jobs if tourists no longer see Nelson County as a desirable destination or if parents stop sending children to the nearby school which employs fifteen people? We stand to have employment loss, not gain, from this enterprise. What will be the electrical and other utility needs be? Will we need to accommodate for that?

I think there is no need for Nelson County to become an industrialized county. Our strength is in our rural character. Tourism and agriculture create valid occupations. Our country needs places that are safe and comfortable for people and that have enough land in its natural state to balance those that don't. The clean air and water provided by forested land are not something to be taken for granted – neither is the potential for food production. We have known that and we have consciously decided to protect that.

I thought our zoning laws and ordinances were designed to protect the rural character of our county. Why does the newspaper article make it sound like we can do nothing about this proposal? What if Zenith decides to expand in size and in scope of their activities? Can we protect ourselves against that? Are there no conditions about size, height, noise, pollution, danger? Does industrial zoning mean that anything can happen? Perhaps you have all entertained these questions already, but the public does not know the answers to these questions? The public needs to be able to ask questions and express concerns. I hope you will make an effort for this to happen and that you will let Zenith know that the public's input will impact your decision. The newspaper article said "'I have not heard any complaints,' Miles said." Perhaps he should know that there are plenty of rumbles in the community. Once the information is out and the residents know where they can give their input, he will hear it.

I'm sorry you all got this extra work dumped on your plate - as if there were not enough already!

Sincerely,

Toni Ranieri

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

To: Madame Chair and Members, Nelson County Planning Commission

From: Tim Padalino | Director of Planning & Zoning

Date: October 15, 2014

Subject: Staff Report for Major Site Plan #2014-005 – Zenith Quest International

---

Site Address / Location: Critzer Shop Road (approximately 500' north of intersection with Rte. 6: Afton Mountain Road) / Afton / North District

Tax Map Parcel: #4-A-44A

Parcel Size: 10.0 acres

Zoning: Industrial (M-2)

Request: Applicant seeks approval of Major Site Plan #2014-005 for the proposed Zenith Quest "Afton Mountain" warehouse and office facility

Application Overview

The Department of Planning & Zoning received an application on September 19th from Mr. Hanri Kaya, the property owner and CFO for Zenith Quest International, LLC (ZQI). This application seeks approval for Major Site Plan #2014-005.

The subject property is located on the east side of Critzer Shop Road (Rte. 151), approximately five hundred (500) feet north of the intersection with Afton Mountain Road (Rte. 6) and Avon Road (Rte. 638). The eastern boundary of the property also has frontage along Family Lane, a private road serving several dwellings. The approximately 10-acre property is zoned Industrial (M-2). *(See maps on pages 6 and 7.)*

Summary of Requested Uses & Application Process

The ZQI project proposes to include eighty thousand (80,000) square feet of warehouse space across one story; and ten thousand (10,000) square feet of office space contained in a two story building. The applicant has stated that the warehouse would be used for storage of ammunition and other materials; and also for light assembly of handheld firearms.

The proposed ZQI project was included on the Site Plan Review Committee's August meeting agenda (8/13) without any (draft) site plan drawings or any other application materials having

been submitted at the time. That initial courtesy review has helped to improve the efficiency of the overall application process; and dialogue at that initial review meeting also led to a formal site visit to the property by the Planning Commission on August 28th.

Beginning with the initial courtesy review in August, the Site Plan Review Committee, Planning Commission, and County staff engaged the project team about questions and issues they feel are most relevant and pertinent, including:

- Projected traffic patterns associated with the warehouse and office operations, and any potential impacts on road safety and mobility, with particular respect to VDOT's recently-completed "Route 151 Corridor Study" which included focus on this particular area as being of highest concern and priority;
- Potentially incompatible land uses relative to neighboring properties, which is a function of that small area containing Agricultural (A-1), Residential (R-1), and Industrial (M-2) zoning districts in immediate proximity to one another, with specific request to lights, noise, and other typical "nuisance" questions; and
- Potential changes to the appearance and/or character of the area, with specific respect to Route 151's successful, expanding, high-profile tourism industry and to the project's location at the gateway into Nelson County (in Afton at the intersections of Route 6 and Route 151, which are both designated Virginia Scenic Byways).

Please also note this proposed project's proximity to a recently-funded "HSIP" roadway improvement project, which will allow VDOT to greatly improve the Route 6 – Route 151 intersection just south of the proposed project. The ZQI project team has noted that their proposed entrance (and other site plan details) fully consider and respond to the planned, funded VDOT project, including:

- providing VDOT with a grading easement for erosion and sediment control during construction of the HSIP intersection project, and
- dedicating an expanded ROW to VDOT to accommodate the roadway improvements

However, VDOT has stated that their engineered plans for the "HSIP" intersection improvement were prepared prior to this proposed ZQI project, and thus do not account for any changes in traffic patterns or volumes which may result from the ZQI project. As such, VDOT may also be able to further provide assistance to the applicants (and to Nelson County) by reviewing how the proposed ZQI project might interact with the proposed intersection upgrades, prior to construction (which is presently slated for fall of 2016).

The Major Site Plan submittal was then reviewed at the Site Plan Review Committee's September meeting (9/10); a summary of that review is included below.

Site Plan Review Committee Meeting and Comments

The Site Plan Review Committee convened on September 10th to review the Major Site Plan. The committee members' comments are as follows:

Director of Planning & Zoning: ZQI and their consultants have been understanding and responsive to all of the relevant topics raised by the Review Committee, described above. With regards to neighboring properties, scenic byways, and associated issues, please note that the Site Plan proposes the following details:

- some (partial) retention of an existing woodlot that presently separates the project from neighboring residences (note: this proposed "tree save" area correlates with the required 20' minimum setback);

- some new landscaping materials along Route 151, including canopy trees and understory trees utilizing an attractive native plant palette; and
- the location of the one-story, 80,000 SF warehouse meets the minimum required setbacks, and also provides some additional setback area by choice (Ordinance requires minimum of 20' setback from neighboring properties; Site Plan indicates the two corners of the warehouse closest to the adjoining properties will be 42.9 feet away and 69.2 feet away, respectively).

With those details in place, the project does seem to have made an effort to mitigate some of the site-specific changes that are inherently associated with any large industrial project. However, some important additional details remain to be properly addressed. Contained below are the Department of Planning & Zoning's review comments which have been provided to the applicant:

- Signage:
  - Location, size, and details of all signage are not supplied as required in Major Site Plan Checklist Item T (per Z.O. §13-4-T).
  - These required details must be addressed as part of site plan review.

- Lighting:
  - Location and type of lighting equipment, plus photometric plan, not supplied as required in Major Site Plan Checklist Item V (per Z.O. §13-4-V).
  - Note on cover sheet states that the project will use wall-mounted fixtures and that the lighting will be shown on the building permit plan for approval; however, these required details must be addressed as part of site plan review, not during the building permit application.
  - See (12-7-8K): "Lighting" ... "Outdoor lighting for parking and loading spaces shall be arranged to deflect glare away from adjoining properties and public streets. Sources of light on a lot shall be hooded or of directional type capable of shielding the light source from shining on adjoining property or public right-of-way."

- Landscaping & Screening:
  - Additional screening is needed along Route 151 (designated Virginia Scenic Byway), per the following Zoning Ordinance provisions:
    - (§12-7-8G): "minimum of fifty (50) percent of the road frontage shall be landscaped"
    - (§9-2-2): "landscaping may be required within any established or required front yard setback area"
  - Screening is required adjacent to parking lot and loading area(s) per the following Zoning Ordinance provisions:
    - (§13-4-CC): "parking areas shall not be located between the adjacent public right-of-way and the principal structure on the site unless topographic features or vegetation provide effective screening"
    - (§12-7-8N): "landscaping shall be designed and used to screen adjoining property from storage and loading operation"
  - Other general screening considerations:
    - (§9-2-1): "permitted uses may be required to be conducted ... within an area enclosed on all sides by a solid board fence or an evergreen hedge between six (6) and ten (10) feet in height"
    - (§9-2-3): "sufficient area shall be provided to adequately screen permitted uses from adjacent business and residential district"

- "Tree Save" area correlates with the minimum setback requirements (20') as required by (§9-4)...are there opportunities to increase this tree save area to better "buffer" adjacent residential areas?

- Parking Spaces:
  - Office use = 33 spaces required (per Z.O. §12-7-6e)
  - Industrial use = 1 space required for each employee at maximum shift = (?) (per Z.O. §12-7-6c)
  - 32 spaces provided (2 handicap spaces)
  - If any of the industrial / warehouse employees (at maximum shift) are distinct and separate from the office employees, additional spaces will be required
  - 4 "off street loading spaces" are required (per Z.O. §12-7-7)

- Vehicular Traffic Volume & Patterns:
  - At the previous Site Plan Review Committee meeting, the applicant team stated that there will be six (6) vehicle trips per month associated with the warehouse operation. The vehicular patterns associated with the office use is currently unknown.
  - Information providing a summary of anticipated traffic patterns is requested (per Z. O. §13-7-B-2).

- Required Site Improvements & Bonding Requirements:
  - (§13-6-1-L): required improvements must be secured through a bond furnished by the developer in an amount calculated or approved by the Planning & Zoning Director in accordance with established specifications and construction schedules
  - (§13-6-1-M): plans and specifications for all required improvements to be installed shall be prepared by a licensed engineer

- Other Comments:
  - Checklist Item E: Remove "NCSA" from signature panel
  - Checklist Item M: Label Route 151 / Critzer Shop Road as a designated Virginia Scenic Byway (in relation to "feature of particular scenic significance")
  - Checklist Item N: Provide preliminary plans and elevations for buildings.
  - Checklist Item EE: Is warehouse project and/or office still planned for phased construction? If so, please specify the phasing limits and proposed timing of that phased development.

VDOT: Mr. Jeff Kessler has provided written comments for this project as follows:

- Reference was made to my email of October 6, 2014 to the engineer, Chris Mulligan, PE, requesting additional information pertaining to the proposed entrance design in order to review and comment on the site plans dated September 19, 2014. A copy of VDOT's development plan check list and standard plan notes were provided for guidance. The engineer was also requested to coordinate the entrance design with the VDOT construction plans to improve the intersection of Routes 151/6/638 (Avon).

TJSWCD: Mrs. Alyson Sappington of the Thomas Jefferson Soil & Water Conservation District provides review of the Erosion & Sediment Control Plan. She provided written review comments to the applicant on September 9th, regarding the Erosion & Sediment Control Plan. It was also acknowledged that the Stormwater Management Plans were sent to Virginia Dept. of

Environmental Quality (DEQ) on Friday, September 5th. The project will need to receive VSMP permit coverage from DEQ prior to the County's issuance of a land disturbing permit or a building permit, and prior to any site construction.

VDH: On Friday, October 10th, Mr. Tom Eick of the Virginia Department of Health noted in writing that he has not received or reviewed any soil work or OSE proposal for the project.

Nelson County Building Code Official: Mr. David Thompson was not in attendance, but provided written comments prior to the meeting. Regarding the Site Plan, Mr. Thompson noted that an approved E&S Control Plan, a Nelson County Land Disturbing Permit, and a copy of VSMP permit registration statement from DEQ are required. He also declared that a bond, cash escrow, or irrevocable letter of credit must be established to Nelson County to ensure that E&S Control measures are properly installed, maintained, and completed in accordance with the approved plan.

Nelson County Planning Commission: Mrs. Linda Russell provided written comments prior to the meeting, which were incorporated into the comments provided to the applicant by County staff.

Staff Comments

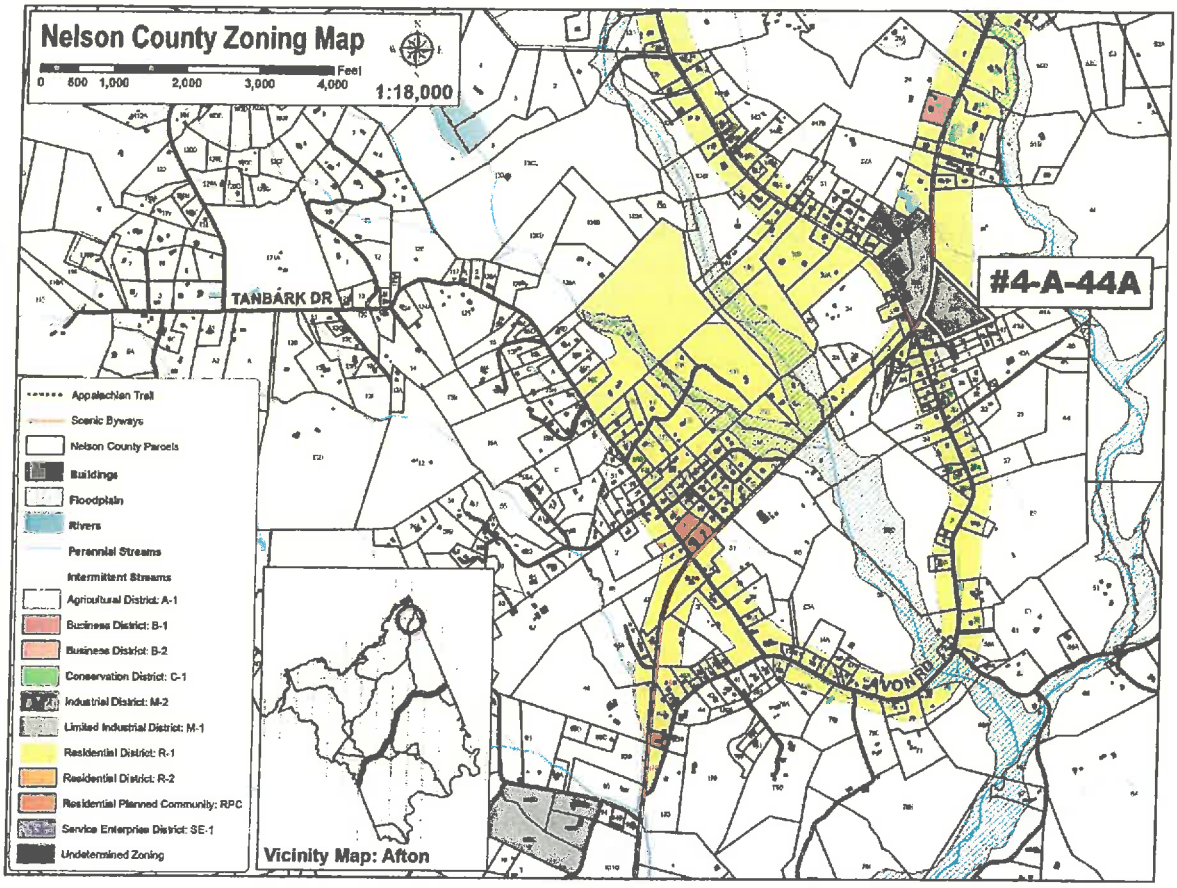
After the Site Plan Review Committee meeting, the applicant team noted that they would not be submitting a revised Site Plan for review at the October 22nd PC meeting. Rather, they indicated their preference of having the Planning Commission review the original submittal (dated 9/19) at this month's meeting, and then incorporate all of the review comments (from both the Site Plan Review Committee members and the Planning Commission) at the same time, into one revised submittal to be reviewed at the following PC meeting.

The applicant team indicated they would revise the landscape plan (Sheet 16) to include additional plant materials along Route 151, and to better screen the loading and parking areas. Those additional plant materials will likely contain some evergreen plants and some understory trees and/or shrubs, which were requested in order to help provide a fuller and more consistent buffer between the proposed project and the adjacent properties and Scenic Byway.

The applicant team also indicated they would attempt to obtain conceptual sketches or renderings of the project's architectural drawings (depicting the elevation and floor plan); but noted that the project team did not include an architect at the time of the Site Plan Review Committee meeting. The applicant team also noted their intent to provide the required information regarding exterior lighting type(s) and location(s).

On October 13th, Mrs. Ammy George provided the following information regarding estimated traffic volume: "There has been a turn lane warrant analysis prepared by Scott Dunn of the Timmons Group. ... Scott computed the Average Daily Trips as 201 vehicles (this includes the anticipated traffic from 30 employees and the truck traffic) He used the ITE Codes of General Light Industry (110) and General Office (710)." That figure (an average of 201 vehicle trips per day) is significantly higher than what was initially estimated by the applicant team. *Note: this information has been accepted and approved by VDOT; and can be reviewed at the end of this report.*

Thank you for your attention to this matter; please contact me if you have any questions about this report or this application, or if I may be of assistance in any other way.


Nelson County Zoning Map
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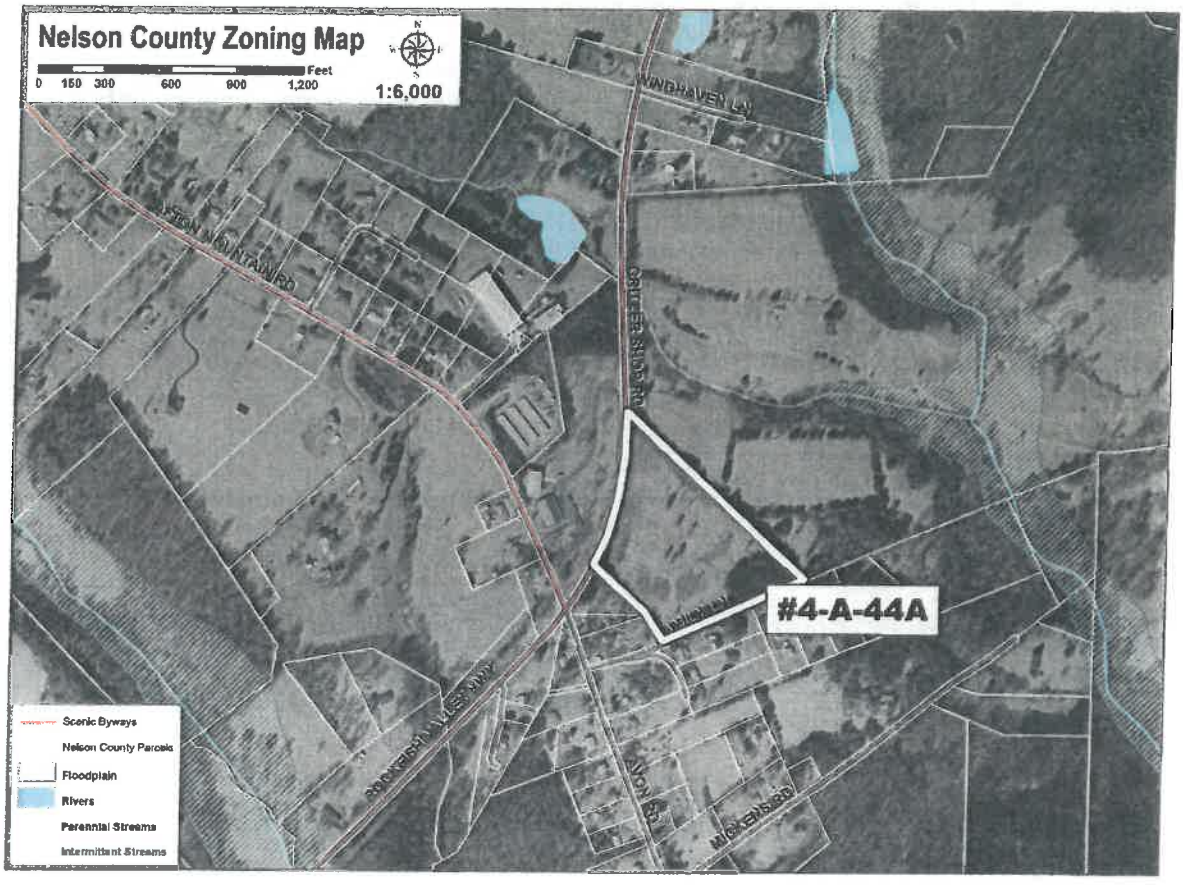
#4-A-44A
AVON RD
Appalachian Trail
Scenic Byways
Nelson County Parcels
Buildings
Floodplain
Rivers
Perennial Streams
Intermittent Streams
Agricultural District: A-1
Business District: B-1
Business District: B-2
Conservation District: C-1
Industrial District: M-2
Limited Industrial District: M-1
Residential District: R-1
Residential District: R-2
Residential Planned Community: RPC
Service Enterprise District: SE-1
Undetermined Zoning
Vicinity Map: Afton


Nelson County Zoning Map
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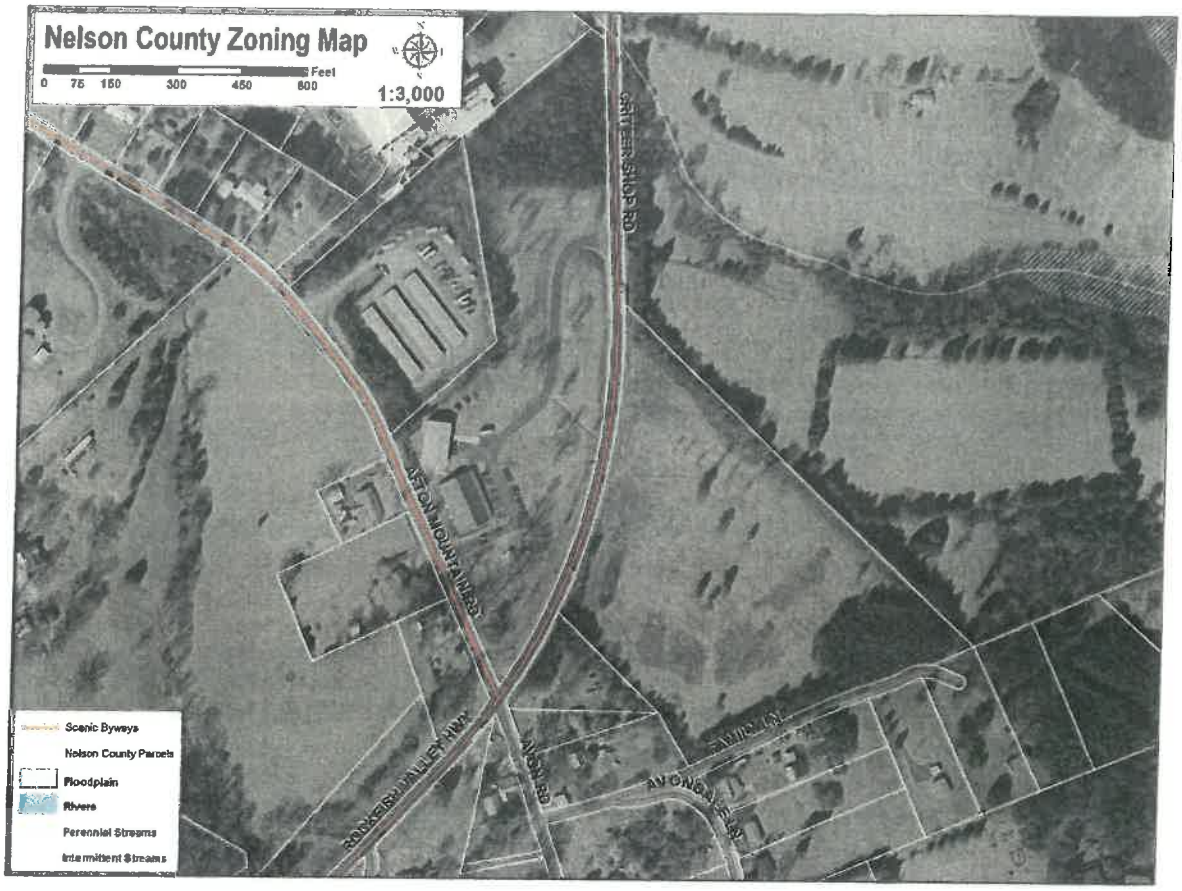
WINDHAVEN LN
AFTON MOUNTAIN RD
CRUTCER SHOP RD
#4-A-44A
ROCKFISH VALLEY HWY
AVON RD
MICKENS RD
Scenic Byways
Nelson County Parcels
Floodplain
Rivers
Perennial Streams
Intermittent Streams


Nelson County Zoning Map
Feet
0 75 150 300 450 600
1:3,000
Scenic Byways
Nelson County Parcels
Floodplain
Rivers
Perennial Streams
Intermittent Streams

NELSON COUNTY PLANNING COMMISSION
MEETING MINUTES
October 22, 2014

Present: Chair Philippa Proulx, Commissioners Linda Russell, Mary Kathryn Allen, Michael Harman and Robert Goad; and Larry Saunders (Board of Supervisors Liaison)

Staff Present: Tim Padalino, Director of Planning & Zoning

Call to Order: Chair Proulx called the meeting to order at 7:00 P. M. in the General District Courtroom, County Courthouse, Lovingston.

Approval of Minutes – August 27, 2014: Commissioner Allen requested a change to the first sentence in the third paragraph on page 4, with "than" being corrected to "then."

> **Commissioner Harman made a motion to adopt the August 27th Meeting Minutes with the noted correction; Commissioner Allen seconded the motion; the vote 3-0, with Commissioner Russell abstaining due to her absence at the August meeting; and with Commissioner Goad and Supervisor Saunders abstaining due to not being members of the Commission at the time of the August 27th meeting.**

Chair Proulx then explained to the applicants and members of the public that the County does not have the ability to digitally project a slideshow of the agenda items, as intended, because the equipment was not made available. She apologized for that error. Mr. Padalino noted that printed copies of the entire meeting materials packet were available in the back of the courtroom, if anyone wished to see the staff report and associated maps and images.

1. Special Use Permit #2014-007 – St. Mary's Cemetery

Mr. Padalino apologized to those in attendance for not being able to present a Powerpoint presentation, as was intended. He then provided a brief oral report summarizing the location and characteristics of the subject property; and stated that the requested use is a new cemetery for the church, which will complement the existing historic Lovings Gap Cemetery on the same property.

Mr. Padalino then stated that, upon visiting the site after the October 8th Site Plan Review Committee meeting, he became concerned about the safety of the entrance off of Thomas Nelson Highway. He then shared other review comments, noting that "required improvements" associated with all Site Plan projects must comply with County standards and specifications, per Zoning Ordinance Article 13, Section 6-1, "Improvements." He concluded by stating that the language in 13-6-1 requires this proposed cemetery project to be accessed by a road built to County or Virginia Department of Transportation (VDOT) standards; and that the parking area must meet the specifications contained in Zoning Ordinance Article 12, Section 7-8, "Design Standards."

Mr. Padalino then clarified that the Commission's current application review was limited to the requested Special Use Permit (SUP), and that such issues and concerns about safety and "required improvements" are typically reviewed in detail during the subsequent Major Site Plan application and review process. However, because it was unclear if this proposed project would be required to submit a Major Site Plan (pending approval of the SUP application), Mr. Padalino wanted to ensure those comments and concerns were shared at this public hearing for the requested Special Use Permit.

Mr. Massie Saunders, P.E., of Saunders Surveys, then spoke on behalf of the applicant (Father Daniel Kelly of St. Mary's Catholic Church). He reiterated the comments and concerns noted by Mr. Padalino, and then

disagreed with him saying that the Commission should not be reviewing the Site Plan details and other physical details associated with this proposed use.

Mr. Saunders continued, stating that VDOT has been reviewing this project for several months and has not required a deceleration lane or turn lane; and therefore the County should not be requiring or requesting anything related to this matter. Mr. Saunders also stated that the road should not be required to be upgraded, as it currently has some gravel on it and is currently serving multiple parcels beyond the St. Mary's property. Mr. Saunders also noted that this cemetery proposal included a reconfiguration plat, which combined four existing parcels into one parcel – and therefore is a project that is technically reducing the existing road's service to parcels accessed off of Thomas Nelson Highway.

Mr. Saunders then noted that he is not aware of a single cemetery in Nelson County which has a commercial-style parking lot. He stated that all cemeteries are simply served by a small road that loops through the cemetery, and visitors typically park in the grass with close access to the burial plots. Mr. Saunders then stated that he is not aware of any requirements for a cemetery to contain a minimum number of off-street parking spaces; and therefore should not be subject to any design specifications or standards associated with most other projects.

Chair Proulx opened the public hearing at 7:14 P.M.

Richard Bulissa: Mr. Bulissa introduced himself as an adjoining property owner, and operator of Orchard House Bed and Breakfast.

Mr. Bulissa stated that he thinks the proposed cemetery is a very good use of the property. He then shared that previous logging on the property, which is directly upstream from his property, contributed to a culvert being blown out a few years ago. He noted that the destruction of the culvert prevents him from crossing Town Creek, which prevents him from accessing five acres of his property.

Mr. Bulissa then noted that the culvert was originally installed by VDOT, and he is attempting to work with that Department to determine how the culvert should be replaced. He noted that VDOT staff have met with him on the property, but that the situation is unresolved. He then stated that he does support the proposed cemetery, but would be opposed to any use or development that results in any additional damage to his property due to increased runoff from the upstream property.

Chair Proulx closed the public hearing at 7:19 P.M.

Commissioner Russell made a motion to make a recommendation to the Board of Supervisors for approval of Special Use Permit #2014-007 for St. Mary's Catholic Church cemetery. Commissioner Allen seconded the motion; the vote 5-0. Commissioner Goad abstained because of his affiliation with St. Mary's Catholic Church.

Following the vote, Mr. Padalino responded to Mr. Saunders' comments regarding required improvements. Mr. Padalino noted that Mr. Saunders' claims about cemeteries not being subject to parking requirements were in fact accurate and correct. Because Zoning Ordinance Article 12, Section 7-6 "Required spaces for specific uses" does not contain any provision for "cemetery" uses, there is thereby no required minimum number of parking spaces, and subsequently no requirement to improve the proposed parking area. Mr. Padalino continued by stating that if that parking area is not subject to improvements, than the 0.6-acre area of disturbance (as stated on the Minor Site Plan) would not be expected to increase over the 1.0-acre threshold, meaning that an approved Major Site Plan would not be required for this project pending any Board of Supervisors (BOS) approval of this SUP application.

Other Agenda Items:

2. Major Site Plan #2014-005 – "Afton Mountain Site Plan" / Zenith Quest International, LLC

Chair Proulx noted that the Planning Commission's review of this Site Plan is not a public hearing, and does not provide for any opportunity for public comments related to the Site Plan and/or proposed uses. She stated that the proposed use is a "by-right" use, meaning that the applicant does not have to obtain Special Use Permit approval from the Board of Supervisors, and that it only requires Site Plan approval. She explained that the Board of Supervisors has delegated the review and approval of Site Plans to the Planning Commission; and that the Commission's responsibility is to review the project with regards to the Zoning Ordinance Checklist for Major Site Plans. She stated that if the Commission finds the Site Plan to be compliant with the checklist requirements, then the Site Plan must be approved.

Mr. Padalino then began his presentation of the staff report by offering another apology for the lack of visual aid and the absence of a Powerpoint slideshow, despite the efforts of his staff to arrange for such equipment to be supplied.

Mr. Padalino then provided a brief oral report summarizing the location and characteristics of the subject property and adjoining properties. He noted that this Industrial (M-2) District property adjoins properties in the Agricultural (A-1) District, the Residential (R-1) District, and other properties in the Industrial (M-2) District across Route 151.

Mr. Padalino stated that the Site Plan Review Committee met on October 8th to review the Site Plan drawings, and then provided a brief summary of plan review comments provided by each agency represented on the Review Committee.

He stated that County staff have discussed the need for the Site Plan to be revised with respect to details about required landscaping and screening; details about exterior lighting; and details about signage. He noted that the traffic generation contained on the Site Plan estimate that the vehicular traffic associated with this proposed use would be 201 vehicles per day, and 20 commercial truck trips per month.

Mr. Padalino then noted review comments from Mr. Jeff Kessler of VDOT, which required additional details about the project's entrance design, and which requested that the entrance design be further coordinated with the future intersection improvements that VDOT will be implementing at the Route 151 – Route 6 – Route 638 intersection just to the south of the subject property. Mr. Kessler also commented that the ITE Trip Generation Report information be revised on the Site Plan (Note #2).

Mr. Padalino then shared review comments from Mrs. Alyson Sappington of the Thomas Jefferson Soil & Water Conservation District (TJSWCD), which stated that technical review comments for the Erosion & Sediment Control Plan (E&S) were submitted to the applicant on September 9th and that the project would require "permit coverage" from Virginia Department of Environmental Quality (VA DEQ) under the Virginia Stormwater Management Program (VSMP) prior to the County's issuance of a land disturbing permit or a building permit or any site construction. Mr. Padalino added that Mrs. Sappington's review comments include a note that the Stormwater Management Plan was submitted on Friday, September 5th for review by VA DEQ.

Mr. Padalino then shared review comments submitted by Mr. David Thompson, Nelson County Building Official. Mr. Padalino explained that Mr. Thompson's comments explain that an approved E&S Control Plan, a Nelson County Land Disturbing Permit, and a copy of VSMP permit registration statement from DEQ are required. He also declared that a bond, cash escrow, or irrevocable letter of credit must be established to Nelson County to ensure that E&S Control measures are properly installed, maintained, and completed in accordance with the approved plan.

Finally, Mr. Padalino shared comments from Mr. Tom Eick, Virginia Department of Health (VDH), which explained that Mr. Eick has not received nor reviewed any OSE report or other "soils work" for this project.

Commissioner Russell stated that the issue of exterior lighting was of high importance, and has been discussed in detail with the applicant at previous Site Plan Review Committee meetings. She noted that she did not think a photometric plan was a necessity for this project, but also stated that the lighting cannot result in light or glare being deflected onto adjoining properties or the adjacent public right of way. Commissioner Russell added that full cut-off light fixtures are recommended as a way of protecting dark skies at night and reducing impacts to adjoining properties.

Ms. Ammy George of Roudabush, Gale and Associates, representing the applicant, then provided additional information about the Site Plan and the proposed project. Ms. George noted that additional landscaping materials would be specified on the pending submission of revised Major Site Plan drawings. She also noted that the pending submission of revised Major Site Plan drawings would propose for the parking lot to be gravel instead of paved, which was specified in the original Major Site Plan submission.

In response to questions from Commissioners, Ms. George also stated that the project would be enclosed by an eight (8) foot chain link fence, and that additional security measure for the top of the fence were being considered but no decision has been made. She also stated that the project would maintain a large majority of the existing wooded buffer between the rear of the proposed warehouse and Family Lane. She stated a small "break" in the forested buffer would result from the gravel fire access road and locked gate which would be installed between Family Lane and the warehouse.

Mr. Ray Miles of Zenith Quest International (ZQI) then provided additional details about the project and the proposed uses. Mr. Miles noted that the warehouse would be used for the storage of ammunition, and that all ammunition would arrive packaged, and would typically leave in the same packaging. He also provided clarification to questions about what other materials may be stored at the facility, stating that a variety of goods such as natural stone tiles and non-toxic cleaning agents will be stored there. He also stated that the warehouse would potentially be used for the storage of other materials, if and when his import-export business comes across profitable opportunities, but that he currently cannot specify what other materials could potentially be stored there.

Mr. Miles then explained that part of ZQI's existing business involves distribution and sales of firearms, specifically small arms. He explained that ZQI will be involved with light assembly, disassembly, and reassembly of small arms. Mr. Miles noted that, if required, any testing facilities for these modified firearms would be entirely enclosed within the warehouse, and would be constructed according to specifications that are designed to minimize or eliminate all noise.

Chair Proulx then asked Mr. Miles if the proposed ZQI facility would involve any retail sales. Mr. Miles stated that this is a warehousing and wholesale operation, and that there would be no retail sales at this facility.

Mr. Miles also noted that the office building is a component of this project which may not be constructed at the same time as the warehouse. He noted the office building may occur possibly three (3) years after the warehouse is constructed. As such, conceptual drawings of the office building may not be available, but conceptual drawings of the warehouse will be provided as part of the revised Major Site Plan submittal, as required by the checklist.

Commissioner Russell made a motion to continue the review of the Major Site Plan until the following Planning Commission meeting, pending submission of revised materials by the applicant. Commissioner Harman seconded the motion, the vote 6-0.

Other Business:

Regular Meetings: Chair Proulx introduced a resolution to modify the Commission's meeting schedule, rescheduling of the November and December Regular Meetings. Per the resolution, the November meeting would be moved from November 26th to November 19th; and the December meeting would be moved from December 24th to December 17th.

Commissioner Allen read the resolution and made a motion to approve the resolution. Commissioner Russell seconded the motion, the vote 6-0.

Wayside Stand Permits: Mr. Padalino briefed the Commission on the issue of "Wayside Stand Permits." He noted that this was a topic that has recently been reviewed by the Commission as part of the recent "Agricultural Operations" amendment process. Part of the review involved a proposal to establish a review procedure and approval criteria for such permits, as the Zoning Ordinance currently provides virtually no guidance.

Mr. Padalino explained that two such permit applications have been received since the previous meeting; and that he may forward those permit applications to the Commission for their review and approval. He noted his reluctance to administratively approve Wayside Stand Permits with regards to safety concerns for patrons, operators, and passing motorists. Regarding those concerns, Mr. Padalino stated he has been in communication with Mr. Kessler at VDOT, seeking guidance on what type of information VDOT would need in order to review that type of permit. That communication has not led to a resolution of the matter, but that Mr. Kessler and other VDOT staff would make themselves available to establish a review procedure for Wayside Stand Permits.

Mr. Padalino concluded by stating that if a review procedure could be established prior to next month's Planning Commission meeting, then he would process those permit applications administratively. If a review procedure could not be established, then he stated he will send the permit applications to the Planning Commission for their review and action at the November meeting.

Adjournment:
At 8:12 P.M. Commissioner Allen motioned to adjourn.

Respectfully submitted,

Timothy M. Padalino
Director, Planning & Zoning

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

To: Chair and Members, Nelson County Planning Commission

From: Tim Padalino | Director | Department of Planning & Zoning

Date: January 21, 2015

Subject: Review of Revised Major Site Plan #2015-004 "Zenith Quest – Afton Mountain"

At the end of December, the Department of Planning & Zoning received revised site plan materials for Major Site Plan #2014-005 " Zenith Quest – Afton Mountain." This resubmittal contains the applicant's responses to the original review comments from the Site Plan Review Committee (reviewed on October 8th) and from the Planning Commission (reviewed on October 22nd).

Specifically, the resubmittal materials include the following:

- a revised Site Plan (which addresses many of the issues identified in the original reviews);
- a lighting plan on sheets 18 and 19;
- a photograph showing the size and appearance of a requested new sign (see page 8 of attached "updated review comments" document); and
- architectural drawings showing the preliminary plans and elevations for the proposed warehouse facility

To help demonstrate the various revisions that have taken place to date, I have attached a separate document containing all of the original review comments; plus the responses from the applicant; and then the current review comments related to the new resubmittal materials. That document should help identify which comments were sufficiently addressed during this resubmittal, and which comments still need to be further addressed.

I have also attached to this document the original staff report (dated October 15th) which may be a helpful reference.

Site Plan Review Committee Meeting and Comments

The Site Plan Review Committee convened on January 14th to review the revised site plan materials. The committee members' comments are as follows:

Director of Planning & Zoning: With regards to the revised materials, the applicant has been supplied with a list of updated review comments. As noted above, that list is attached to this report. The outstanding review comments are primarily focused on the following issues and questions; please see the attached document for more information:

- landscaping and improved screening for the industrial use(s)
- color and material of warehouse structure (including roof and exterior walls)
- ability to utilize Family Lane (private road) for secondary emergency access
- establishing a developer's bond for all required improvement prior to Site Plan approval (per Z.O. Article 13, Section 6-1-L)

VDOT: Mr. Kessler has previously stated in writing (June 9th, 2014) that the, "traffic generation, distribution and turn lane analysis" report (dated May 22nd, 2014) "is acceptable" ... and that, "neither a right turn lane or a left turn lane would be warranted for a commercial entrance on Route 151."

Mr. Jeff Kessler was not in attendance at the January 14th review, but he provided written comments on January 15th. He described those comments as, "requests for clarification in the details and [some] additional information," and also noted that, "we do not foresee any major issues" with the revised site plan drawings. Mr. Kessler's comments are attached to this report.

TJSWCD: Mrs. Alyson Sappington of the Thomas Jefferson Soil & Water Conservation District provides review of the Erosion & Sediment Control Plan. She indicated in an email dated January 9th that the E&S Control Plan was acceptable, and that she was prepared to provide her approval signature on the final plan drawings. She reminded the applicant of the need to obtain "permit coverage" with the Virginia Stormwater Management Program, and that the applicant needed to work directly with Virginia Dept. of Environmental Quality to obtain that approval.

VDH: Mr. Tom Eick of the Virginia Department of Health was not in attendance and did not receive his meeting materials packet until after the meeting. He stated in writing that he has previously reviewed some earlier information regarding Zenith Quest's proposed plans for well and septic system, but that the only permit he has approved was a permit for a "IIIB well." The applicant team noted on January 21st that Mr. Jeff Loth will be preparing the septic / drainfield permit application for Zenith Quest, which they expect to submit to VDH "sometime next week."

Nelson County Building Code Official: Mr. David Thompson was not in attendance, but we discussed the revised site plans after the meeting. We specifically reviewed questions about the project's compliance with emergency service access requirements. Mr. Thompson confirmed that the location and configuration of the proposed 20' wide (gated) gravel road is sufficient for secondary fire access and emergency services, and is compliant with applicable regulations.

Virginia Department of Fire Programs: Mr. Kenneth L. Kent, Assistant Fire Marshall in the Western Region of the State Fire Marshall's Office, provided some comments and clarification. Mr. Kent explained that, "the State Fire Marshal's Office is responsible for enforcement of the Virginia Statewide Fire Prevention Code in localities such as Nelson County, where they do not have a Fire Official," and that, "[VDFP] enforcement powers begin once a building has been completed and approved by the Building Official and the building is occupied.

Mr. Kent further explained that VDFP has no comment on the site plan, because they are not involved in planning: "During planning and construction, the requirements for construction are mandated by the Virginia Construction Code, and the Building Official is the enforcing authority."

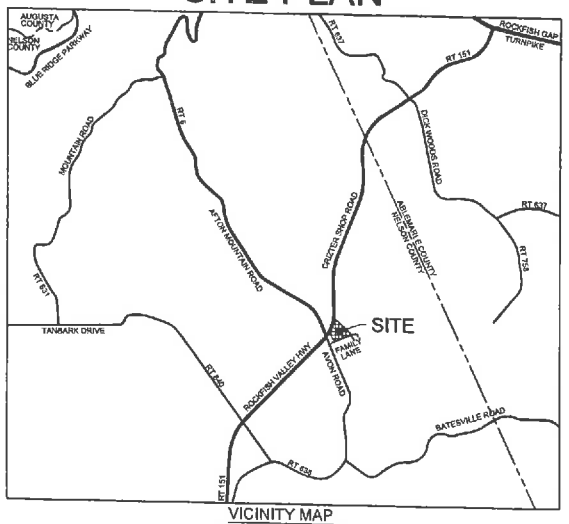
Thank you for your attention to this report on revised Major Site Plan #2014-005 "Zenith Quest – Afton Mountain." And thank you for reviewing the attached documents (the original staff report

and the updated review comments). Please feel free to contact me prior to the meeting on the 28th with any questions you may have regarding the Zenith Quest project, or any of the information contained in this report.

ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN

VDOT STANDARD NOTES

1. THESE PLANS WERE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF (SELECT ONE)
   - ☐ VDOT SUBDIVISION STREET REQUIREMENTS (SSR) PRE-2009
   - ☐ VDOT SUBDIVISION STREET ACCEPTANCE REQUIREMENTS (SSAR) 7-1-2009
   - ☒ N/A
2. TRIP GENERATION DATA:
   USE: GENERAL LIGHT INDUSTRY/GENERAL OFFICE
   ITE CODE: 110/710
   TOTAL DAILY TRIPS: 291 VPD*
   AM PEAK HOUR TRIPS: 15 VPH
   PM PEAK HOUR TRIPS: 14 VPH
   *20 TRUCKS PER MONTH WILL ACCESS THE PROJECT SITE. THE TOTAL DAILY TRIPS INCLUDE THOSE TRIPS GENERATED BY THE TRUCKS.
3. THE DESIGN VEHICLE IS WB-50 TRUCK.
4. ALL CONSTRUCTION METHODS AND MATERIALS WITHIN STATE MAINTAINED RIGHT OF WAY SHALL BE IN ACCORDANCE WITH CURRENT VDOT STANDARDS, SPECIFICATIONS, CURRENT "WORK AREA PROTECTION MANUAL", AND ALL APPLICABLE LOCATION AND DESIGN INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM. INSPECTION DOCUMENTATION SHALL BE PROVIDED CONSISTENT WITH THE VDOT INSPECTION DOCUMENTATION BEST PRACTICES MANUAL.
5. A LAND USE PERMIT SHALL BE OBTAINED FROM VDOT BEFORE ANY CONSTRUCTION IS STARTED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS, INCLUDING ACCESS. ALL LAND USE PERMIT APPLICATIONS MUST HAVE TWO (2) SETS OF APPROVED PLANS, A COPY OF THE PLAN APPROVAL LETTER, A CHECK FOR THE PROCESSING FEE MADE PAYABLE TO TREASURER OF VIRGINIA, AND SURETY OR BOND IN THE REQUIRED AMOUNT.
6. IN ACCORDANCE WITH THE PROVISIONS OF THE INSPECTION DOCUMENTATION BEST PRACTICES MANUAL, VDOT SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK WITHIN STATE MAINTAINED RIGHT OF WAY. THE CONTRACTOR WILL COORDINATE WITH THE VDOT POINT OF CONTACT AT SIGNIFICANT STAGES OF THE PROJECT.
7. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CONSULT THE ENGINEER WHO SEALED THE PLANS TO VERIFY THE APPROVAL OF THE PLANS BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL AGENCIES.
8. THE CONTRACTOR SHALL HAVE AVAILABLE A COPY OF THE LAND USE PERMITS, FINAL APPROVED PLANS, ANY APPROVED REVISIONS, AND A COPY OF THE APPROVAL LETTER ON SITE.
9. THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF ALL POINTS OF CONNECTION OR PROPOSED WORK TO EXISTING CURBS, SANITARY LINES, WATERLINES, ETC., PRIOR TO CONSTRUCTION.
10. ANY ERRORS, CONFLICTS, OR DISCREPANCIES FOUND ON THE APPROVED PLANS SHALL BE REPORTED TO THE ENGINEER WHO SEALED AND SIGNED THE PLANS. VDOT SHALL BE NOTIFIED FOR RESOLUTION BEFORE PROCEEDING FURTHER WITH THE WORK IF THE STATE MAINTAINED RIGHT OF WAY IS AFFECTED.
11. DESIGN CHANGES, SPECIFIED MATERIAL CHANGES, AND /OR FIELD CHANGES FROM THE APPROVED PLANS SHALL BE RE-SUBMITTED TO VDOT FOR REVIEW AND APPROVAL, PRIOR TO PROCEEDING WITH THE WORK.
12. THE DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS, UTILITIES, AND ANY OTHER INSTALLATIONS ALREADY IN PLACE WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO STATE RIGHT OF WAY LIMITS.
13. THE COMMONWEALTH TRANSPORTATION BOARD, MEMBERS OF THE BOARD, THE COMMONWEALTH AND ALL COMMONWEALTH EMPLOYEES, AGENTS, AND OFFICES, SHALL BE ABSOLVED FROM ALL RESPONSIBILITIES, DAMAGES AND LIABILITIES AS A RESULT OF WORK ARISING FROM THE EXERCISE OF THE PRIVILEGES GRANTED BY PLAN AND/OR PERMIT APPROVAL.VDOT STANDARD NOTES 2012 2
14. NO STRUCTURE SHALL BE CONSTRUCTED ON VDOT RIGHTS OF WAY UNLESS SHOWN ON VDOT APPROVED CONSTRUCTION PLANS OR COVERED BY A VDOT LAND USE PERMIT.
15. VDOT SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ANY STORMWATER MANAGEMENT FACILITY OR OUTFALL STRUCTURE LOCATED OUTSIDE OF STATE MAINTAINED RIGHT OF WAY LIMITS AND SHALL BE ABSOLVED FROM ALL RESPONSIBILITIES, DAMAGES AND LIABILITIES AS A RESULT OF SUCH.
16. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK AND VIRGINIA STORMWATER MANAGEMENT PROGRAM. AN INDIVIDUAL CERTIFIED BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION, HOLDING A RESPONSIBLE LAND DISTURBER CERTIFICATION, SHALL BE IN CHARGE OF THE LAND DISTURBING ACTIVITY AND ON THE WORK SITE AT ALL TIMES.
17. PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA. THE COMPLETED DESIGN WORKSHEET SHALL BE INCLUDED WITH THE INITIAL PLAN SUBMITTAL FOR EACH PROPOSED PAVEMENT SECTION UTILIZING THE PREDICTED SN/ SUPPORT VALUE SHOWN IN THE APPENDIX OF THE PAVEMENT DESIGN GUIDE, FOR PRIMARY ROADS AND INTERSTATE HIGHWAYS WHERE TRUCK TRAFFIC EXCEEDS 5%, PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH AASHTO GUIDELINES. THE FINAL PAVEMENT DESIGN MUST BE BASED ON THE ACTUAL CBR.
18. AN ACTUAL COPY OF THE COMPLETE CBR REPORT SHALL BE SUBMITTED TO VDOT IN CONJUNCTION WITH FINAL PAVEMENT DESIGNS. ALL PAVEMENT DESIGN RECOMMENDATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF "THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA".
19. ASPHALT PAVEMENT WIDENING SHALL CONFORM TO VDOT STANDARD WP-2.
20. ALL PAVEMENT MARKINGS ERADICATED DURING CONSTRUCTION MUST BE OVERLAID WITH SURFACE MIX OR SLURRY SEAL #4.
21. ALL VEGETATION AND ORGANIC MATERIAL SHALL BE REMOVED FROM THE RIGHT OF WAY LIMITS PRIOR TO CONDITIONING OF THE SUB-GRADE.
22. WHEN UNSUITABLE MATERIALS FOR SUB-GRADES AND OTHER ROADWAY CONSTRUCTION ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT A GEOTECHNICAL ENGINEER AND VDOT, SUCH MATERIALS SHALL BE UNDERCUT AND BACKFILLED AS DIRECTED BY A GEOTECHNICAL ENGINEER, ACCORDING TO VDOT SPECIFICATIONS.
23. THE NECESSITY FOR ADDITIONAL VDOT STANDARD UNDER DRAINS SHALL BE DETERMINED AT TIME OF SUB-GRADE INSPECTION.
24. THE SCHEDULING OF AGGREGATE BASE INSTALLATION AND SUBSEQUENT PAVING ACTIVITIES SHALL ACCOMMODATE FORECAST WEATHER CONDITIONS ACCORDING TO VDOT "ROAD AND BRIDGE SPECIFICATIONS".
25. A GEOTECHNICAL REPORT SHALL VERIFY/APPROVE STONE DEPTHS IN ACCORDANCE WITH VDOT APPROVED PAVEMENT DESIGNS, PRIOR TO ASPHALT PLACEMENT.
26. A PRIME COAT SEAL BETWEEN THE AGGREGATE BASE AND BITUMINOUS CONCRETE SHALL BE REQUIRED PER VDOT STANDARDS AND SPECIFICATIONS.
27. VDOT SHALL HAVE APPROVED ALL BASE COURSES FOR DEPTH AND TEMPLATE AND PERFORMED THE REQUIRED VISUAL, PROOF ROLL, COMPACTION, AND ANY ADDITIONAL INSPECTIONS AS DETERMINED BY THE VDOT INSPECTOR PRIOR TO PLACEMENT OF ANY SURFACE COURSES.VDOT STANDARD NOTES 2012 3
28. VDOT SHALL BE PROVIDED DOCUMENTATION BY A LICENSED GEOTECHNICAL ENGINEER, CERTIFYING THAT ALL IN-PLACE PAVEMENTS MEET OR EXCEED THE APPROVED PAVEMENT DESIGN THICKNESS PRIOR TO VDOT ACCEPTANCE FOR MAINTENANCE. THE CERTIFYING DOCUMENTATION SHALL CONFORM TO VDOT SPECIFICATIONS AND THE APPROVED PLANS.
29. A LICENSED GEOTECHNICAL ENGINEER SHALL ASCERTAIN THE CAUSE AND CERTIFY A RECOMMENDED METHOD OF REPAIR FOR ALL PAVEMENT STRUCTURAL FAILURES PRIOR TO VDOT ACCEPTANCE FOR MAINTENANCE.
30. INSTALLATION OF PIPE CULVERTS AND STORM SEWERS SHALL CONFORM TO VDOT STANDARD PB-1.
31. ALL STORM SEWER SHALL BE A MINIMUM DIAMETER OF 15".
32. ALL PRE-CAST UNITS SHALL BE VDOT APPROVED. CERTIFICATION AND VDOT STAMP WILL BE REQUIRED ON ALL UNITS. SHOP DRAWINGS, GEOTECHNICAL DATA, SOIL BEARING CAPACITY, AND PLAN VIEW SHALL BE SUBMITTED AS A PACKAGE FOR VDOT REVIEW AND APPROVAL.
33. ALL ENTRANCES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CURRENT VDOT STANDARDS.
34. THE DEVELOPER IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SIGNS FOR THE PROPOSED DEVELOPMENT. THE CONTRACTOR SHALL CONTACT VDOT TO ESTABLISH LOCATIONS FOR STOP SIGNS AND STOP BARS.
35. ALL FIXED OBJECTS SUCH AS UTILITY CABINETS, PEDESTALS, AND STREETLIGHTS SHALL BE LOCATED IN ACCORDANCE WITH CLEAR ZONE REQUIREMENTS AS NOTED IN THE ROAD DESIGN MANUAL. THERE SHALL NOT BE ANY CABINETS, PEDESTALS, OR FIRE HYDRANTS LOCATED ON THE SHOULDER.
36. FLOWERS, SHRUBS, AND TREES SHALL NOT BE PLACED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT AN APPROVED SET OF PLANS AND AN APPROVED PLANTING AGREEMENT. NO IRRIGATION (SPRINKLER) SYSTEMS, BRICK COLUMNS, ENDWALLS, AND/OR BRICK MAILBOXES WILL BE CONSTRUCTED OR INSTALLED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT A PERMIT. ANY OF THE ABOVE ITEMS FOUND IN THE RIGHT OF WAY WITHOUT A PERMIT SHALL BE REMOVED, AND ALL COSTS OF THE REMOVAL SHALL BE BORNE BY THE OWNER AND/OR DEVELOPER.
37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND OVERHEAD UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THE PLANS, PRIOR TO STARTING WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS, AT HIS OWN EXPENSE, OF ANY UTILITIES DAMAGED BY HIS CONSTRUCTION METHODS. MISS UTILITY MUST BE CONTACTED AT 811 AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITY WITHIN EXISTING OR PROPOSED RIGHT OF WAY.
38. ALL CONSTRUCTION DEBRIS, MATERIALS, DUMPSTERS, ETC. SHALL BE LOCATED OUTSIDE THE RIGHT OF WAY.
39. AUTHORIZED UNDERGROUND UTILITY INSTALLATIONS SHALL MAINTAIN A MINIMUM OF 36 INCHES OF COVER, INCLUDING UNDER DITCHES.
40. OVERHEAD UTILITY INSTALLATIONS WITHIN LIMITED ACCESS AND NON LIMITED ACCESS RIGHT OF WAY SHALL BE INSTALLED IN ACCORDANCE WITH VDOT LAND USE PERMIT REGULATIONS.VDOT STANDARD NOTES 2012 4
41. ALL ROADWAY LIGHTING SHALL BE INSTALLED IN ACCORDANCE WITH IESNA LIGHTING CRITERIA AND IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS. ALL ROADWAY LIGHTING SHALL ADHERE TO THE VIRGINIA LIGHTING LAW.
44. CONTACT TRAFFIC ENGINEERING OPERATIONS A MINIMUM OF 48 HOURS IN ADVANCE WHENEVER EXCAVATION IS WITHIN 500 FEET OF A TRAFFIC SIGNAL, SO TRUE LINES CAN BE MARKED.
45. CONTACT TRAFFIC ENGINEERING OPERATIONS A MINIMUM OF 48 HOURS IN ADVANCE OF GUARDRAIL PLACEMENT. THE FINAL LOCATION OF GUARDRAIL WILL BE DETERMINED UPON PROJECT COMPLETION.
46. SIGHT DISTANCES AT ENTRANCES AND INTERSECTIONS SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. ANY OBJECT OR LANDSCAPING THAT OBSTRUCTS DRIVER VIEW SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE OR THE ENTRANCE MAY BE CLOSED AT VDOT'S DISCRETION.
51. THE PERMITTEE IS RESPONSIBLE FOR PURSUING AND OBTAINING ANY AND ALL ENVIRONMENTAL PERMITS INCLUDING, BUT NOT LIMITED TO, WETLANDS, WATERS OF THE US, WATER QUALITY, THREATENED AND ENDANGERED SPECIES, HAZARDOUS MATERIALS, AND CULTURAL RESOURCES, REQUIRED TO PURSUE THE PROPOSED ACTIVITY BEFORE ANY CONSTRUCTION IS STARTED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS. DOCUMENTS RELATED TO THESE ACTIVITIES SHALL BE SUBMITTED WITH THE LAND USE PERMIT APPLICATION.
52. VDOT AND COUNTY APPROVAL OF CONSTRUCTION PLANS DOES NOT PRECLUDE THE RIGHT TO REQUIRE ADDITIONAL FACILITIES AS DEEMED NECESSARY FOR ACCEPTANCE FOR VDOT MAINTENANCE.



VICINITY NORTH

VICINITY MAP
SCALE: 1"=2000 FEET

LEGEND

EXISTING INTERMEDIATE CONTOUR
EXISTING INDEX CONTOUR
PROPOSED CONTOUR
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
TRANSITION FROM CG-6 TO CG-6R
EXISTING TELEPHONE LINE
PROPOSED TELEPHONE LINE
EXISTING STORM SEWER
PROPOSED STORM SEWER
EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
EXISTING ELECTRIC SERVICE
PROPOSED ELECTRIC SERVICE
EXISTING GAS LINE
PROPOSED GAS LINE
PROPERTY LINE
EASEMENT LINE
CENTERLINE
LIMITS OF CLEARING AND/OR GRADING
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
EXISTING TREE DRIP LINE
EXISTING TREE
PROPOSED TREE
100-YR FLOOD OVERLAND RELIEF

FLOW LINE
EXISTING FENCE LINE
EXISTING UTILITY POLE
PROPOSED UTILITY POLE
EXISTING WATERLINE W/ TEE
PROPOSED WATERLINE W/ TEE
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
EXISTING WATER VALVE
PROPOSED WATER VALVE
PROPOSED WATER METER
EXISTING REDUCER
PROPOSED REDUCER
HANDICAP RAMP (CG-12)
PARKING INDICATOR
BENCHMARK
CRITICAL SLOPE
VEHICLES PER DAY COUNT
PROPOSED BUILDING ENTRANCE
EXISTING STREET LIGHT
PROPOSED STREET LIGHT
PROPOSED STREET NAME SIGN
EXISTING SIGN
PROPOSED SIGN
SANITARY MANHOLE IDENTIFIER
STORM DRAIN STRUCTURE IDENTIFIER

APPROVALS

		DATE
PLANNING AND ZONING DIRECTOR		
VIRGINIA DEPT. OF HEALTH		
THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT		

SHEET INDEX

SHEET 1 —— COVER SHEET
SHEET 2 —— EXISTING CONDITIONS & SOILS PLAN
SHEET 3 —— LAYOUT & UTILITY PLAN
SHEET 4 —— GRADING PLAN
SHEET 5 —— ENTRANCE PLAN & TRAFFIC CONTROL
SHEET 6 —— ENTRANCE TRAFFIC CONTROL
SHEET 7 —— PROFILES, COMPUTATIONS & DETAILS
SHEET 8 —— TYPICAL DETAILS
SHEET 9 —— DRAINAGE MAP
SHEET 10 —— SWM/BMP PLAN
SHEET 11 —— EROSION CONTROL PLAN - PHASE 1
SHEET 12 —— EROSION CONTROL PLAN - PHASE 2
SHEET 13 —— EROSION CONTROL NARRATIVE
SHEET 14 —— EROSION CONTROL DETAILS
SHEET 15 —— EROSION CONTROL DETAILS
SHEET 16 —— SWM NOTES AND DETAILS
SHEET 17 —— LANDSCAPE PLAN
SHEET 18 —— SITE PHOTOMETRICS - LIGHTING PLAN
SHEET 19 —— SITE PHOTOMETRICS - LIGHTING DETAILS

SITE DATA

OWNER/DEVELOPER: ZENITH QUEST INTERNATIONAL LLC
522 CHINQUAPIN DRIVE
LYNDHURST , VA 22952

PLAN PREPARER: ROUDABUSH, GALE, & ASSOCIATES
814 MONTICELLO ROAD
CHARLOTTESVILLE, VA 22902
(434) 293-4251
CMulligan@roudabush.com

TAX MAP PARCEL No: 44-44A

PARCEL SIZE: 10.00 AC (435,546 SF)
0.36 AC (15,772 SF) APPROX. AREA OF FUTURE VDOT ROW DEDICATION
9.64 AC (420,073 SF) REMAINING SITE AREA

ZONING: M2 INDUSTRIAL DISTRICT

USE: WAREHOUSE WITH AFFILIATED OFFICE
80,000 SF WAREHOUSE
10,000 SF OFFICE
90,000 SF TOTAL

MAGISTERIAL DISTRICT: 03

TOPOGRAPHY: ROUDABUSH, GALE & ASSOCIATES
FIELD SURVEY ON JUNE 19, 2014

DATUM: NAVD 88

BENCHMARK: VDOT MONUMENT AT NORTHERN PROPERTY CORNER AT CRITZER SHOP ROAD ELEV = 776.56

PROJECT SITE IS APPROXIMATELY 720' FROM INTERSECTION OF CRITZER SHOP ROAD (RT. 151) AND AFTON MOUNTAIN ROAD (RT. 6)

SETBACK: NONE

YARDS: 20' SIDE/REAR ADJACENT TO RESIDENTIAL, AGRICULTURAL OR CONSERVATION DISTRICT

SITE COVERAGE:
BUILDING: 65,000 SF BUILDING FOOTPRINT (20.25%)
PARKING/LOADING: 76,605 SF (18.92%)
OPEN SPACE: 259,487 SF (60.81%)

BUILDING HEIGHT: LESS THAN 35'

PARKING REQUIRED: 1 SPACE PER EMPLOYEE MAXIMUM SHIFT

PARKING PROVIDED: 30 REGULAR PARKING SPACES (30 EMPLOYEES)
2 ACCESSIBLE PARKING SPACES
32 TOTAL PARKING SPACES

ALL UTILITY LINES SHALL BE INSTALLED UNDERGROUND. THIS INCLUDES ELECTRIC, TELEPHONE, CABLE, FIBER OPTIC, ETC...

ROUTE 151 - CRITZER SHOP ROAD IS A VIRGINIA SCENIC BYWAY.

THIS PROJECT IS PLANNED FOR TWO PHASES OF CONSTRUCTION. THE FIRST PHASE WILL INCLUDE THE CONSTRUCTION OF ALL SITE IMPROVEMENTS, UTILITIES AND THE WAREHOUSE PORTION OF THE PROPOSED BUILDING. THE SECOND PHASE OF CONSTRUCTION WILL INCLUDE THE OFFICE PORTION OF THE PROPOSED BUILDING.

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 031672
PROFESSIONAL ENGINEER

ACCEPTABLE TO VDOT

VDOT REPRESENTATIVE: _____ DATE: _____

VDOT'S REVIEW IS NOT INTENDED TO BE EITHER COMPLETE OR COMPREHENSIVE. IT IS THE RESPONSIBILITY OF THE SUBMITTING ENGINEER/DESIGNER THAT SIGNS AND SEALS THESE PLANS TO ENSURE THE COMPLETENESS AND ACCURACY OF THESE PLANS IN ACCORDANCE WITH GOVERNING LAWS, REGULATIONS, SPECIFICATIONS AND STANDARDS. PLAN ERRORS AND OMISSIONS THAT ARE DISCOVERED DURING PLAN CONSTRUCTION REMAIN THE RESPONSIBILITY OF THE SUBMITTING ENGINEER/DESIGNER.

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PHONE 434-977-0205 - FAX 434-296-8250 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/19/2014
Comments

DATE
Sept. 19, 2014

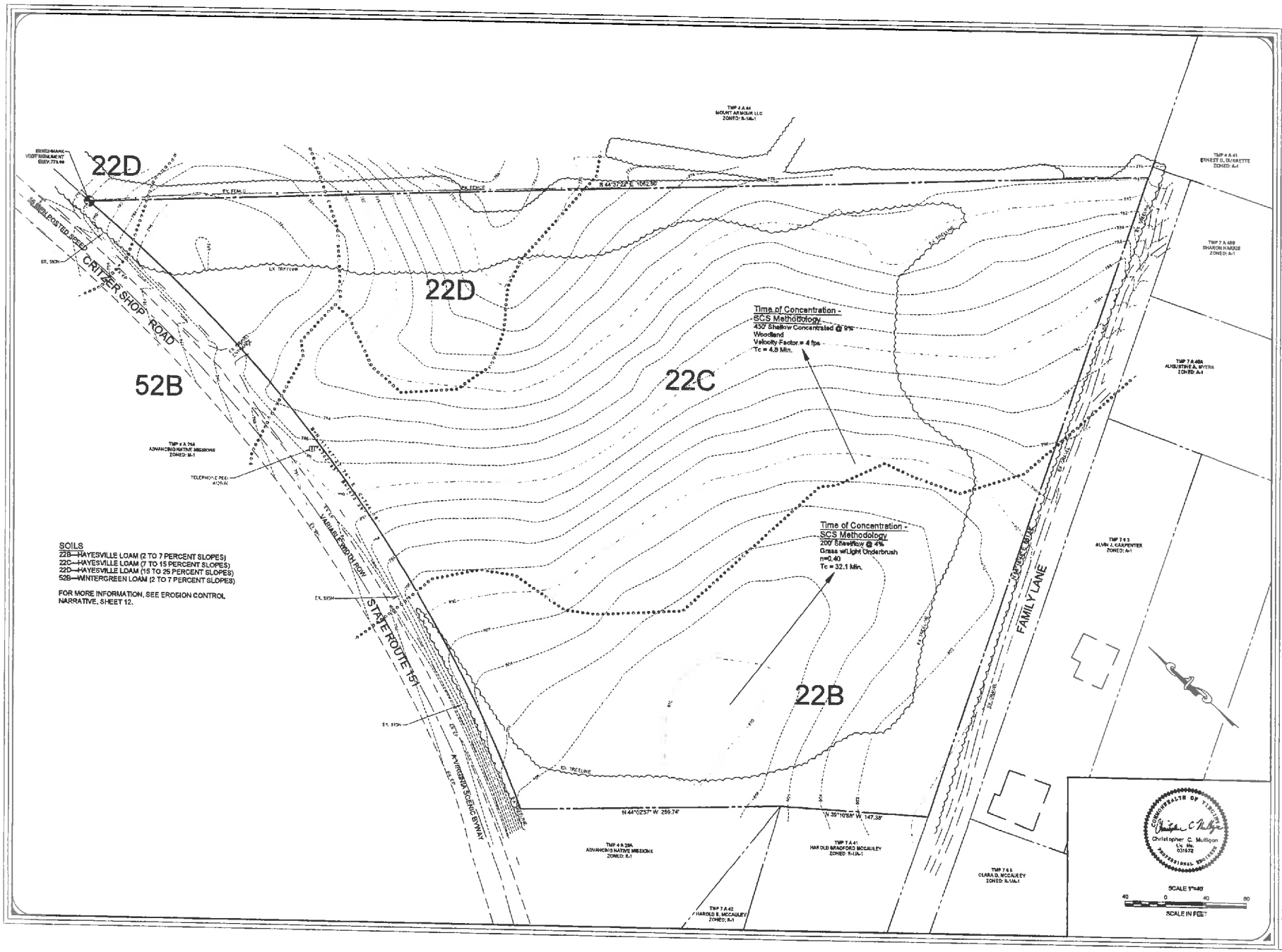
SCALE
AS SHOWN

CONTOUR INTERVAL
N/A

COVER SHEET
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
1 of 19



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REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

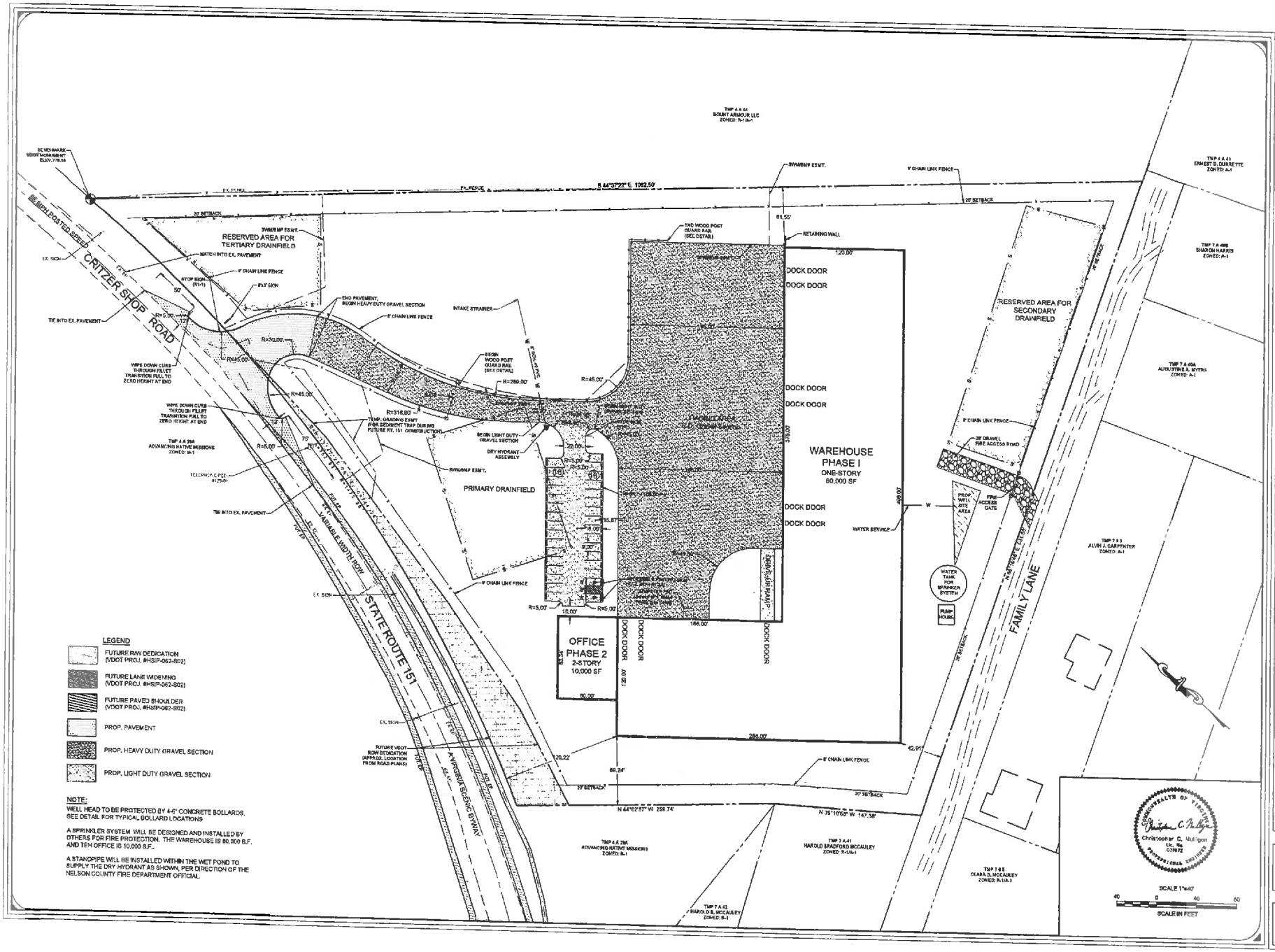
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

EXISTING CONDITIONS & SOIL PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
2 of 19



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1241 NORTH VIRGINIA STREET • CREST • TOWNE, VIRGINIA 23885
PHONE 804-977-2058 • FAX 804-977-2057 • EMAIL INFO@RGALE.COM

REVISIONS
12/16/2014
Comments

DATE
Sept. 18, 2014

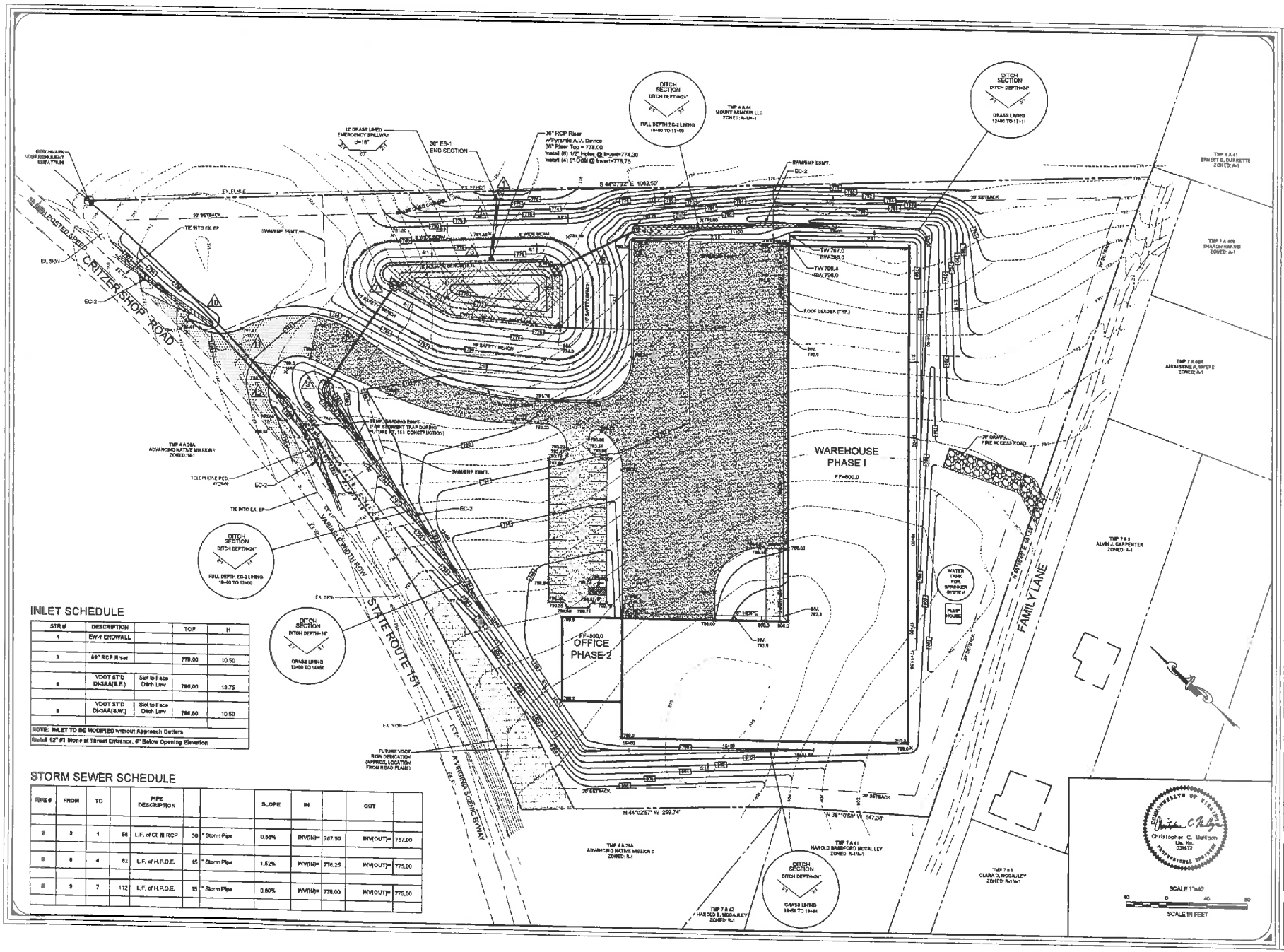
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

LAYOUT & UTILITY PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
3 of 19



INLET SCHEDULE

STR #	DESCRIPTION		TOF	H
1	EW-1 ENDWALL			
3	36" RCP Riser		778.00	10.50
5	VDOT STD DI-3AA(S.E.)	Slot to Face Ditch Low	780.00	13.75
8	VDOT STD DI-3AA(S.W.)	Slot to Face Ditch Low	786.50	10.50

NOTE: INLET TO BE MODIFIED without Approach Gutters
Install 12" #3 Stone at Throat Entrance, 6" Below Opening Elevation

STORM SEWER SCHEDULE

PIPE #	FROM	TO		PIPE DESCRIPTION			SLOPE	IN		OUT	
2	3	1	58	L.F. of Cl. III RCP	30	" Storm Pipe	0.86%	INV(IN)=	787.50	INV(OUT)=	787.00
5	6	4	82	L.F. of H.P.D.E.	15	" Storm Pipe	1.52%	INV(IN)=	776.25	INV(OUT)=	775.00
6	9	7	112	L.F. of H.P.D.E.	15	" Storm Pipe	0.60%	INV(IN)=	778.00	INV(OUT)=	775.00

ROUDABUSH, GALE & ASSOCIATES, INC.
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PHONE 540-433-2661 FAX 540-433-3823 EMAIL RGA@RGAENGINEERS.COM

REVISIONS
12/15/2014
Comments

DATE
Sept. 15, 2014

SCALE
1" = 40'

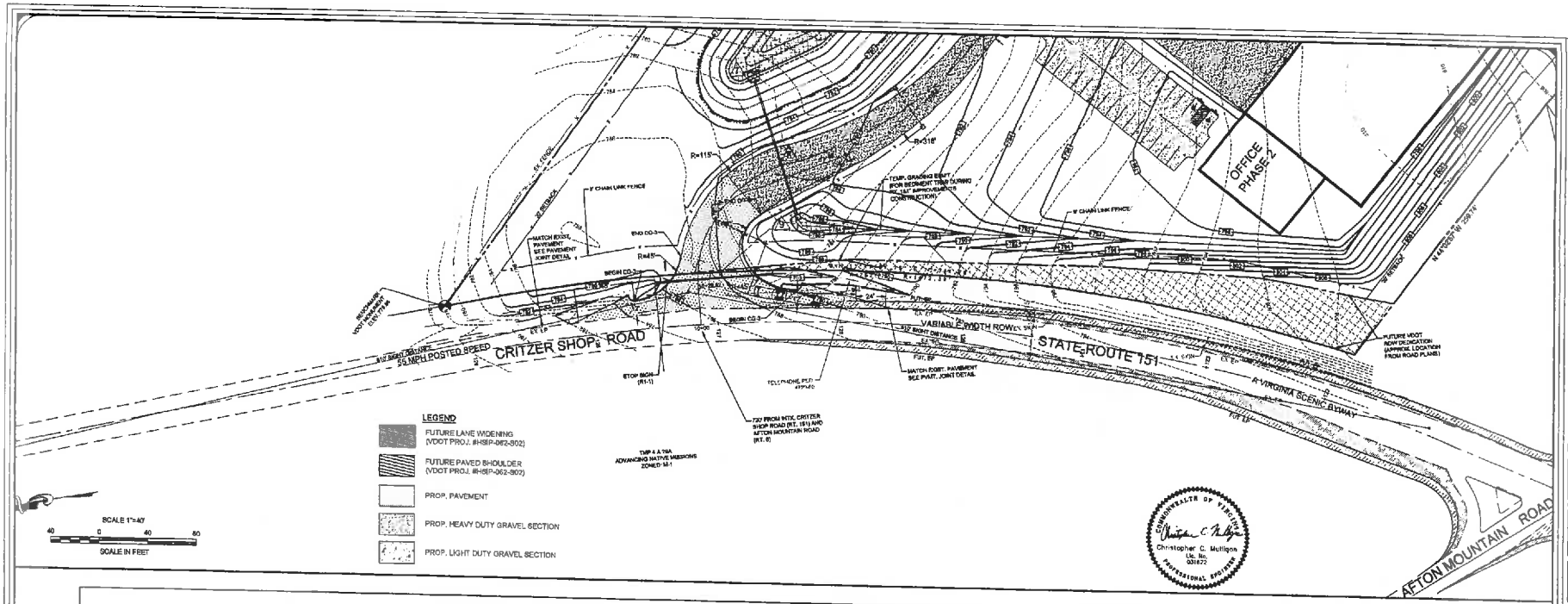
CONTOUR INTERVAL
2 Feet

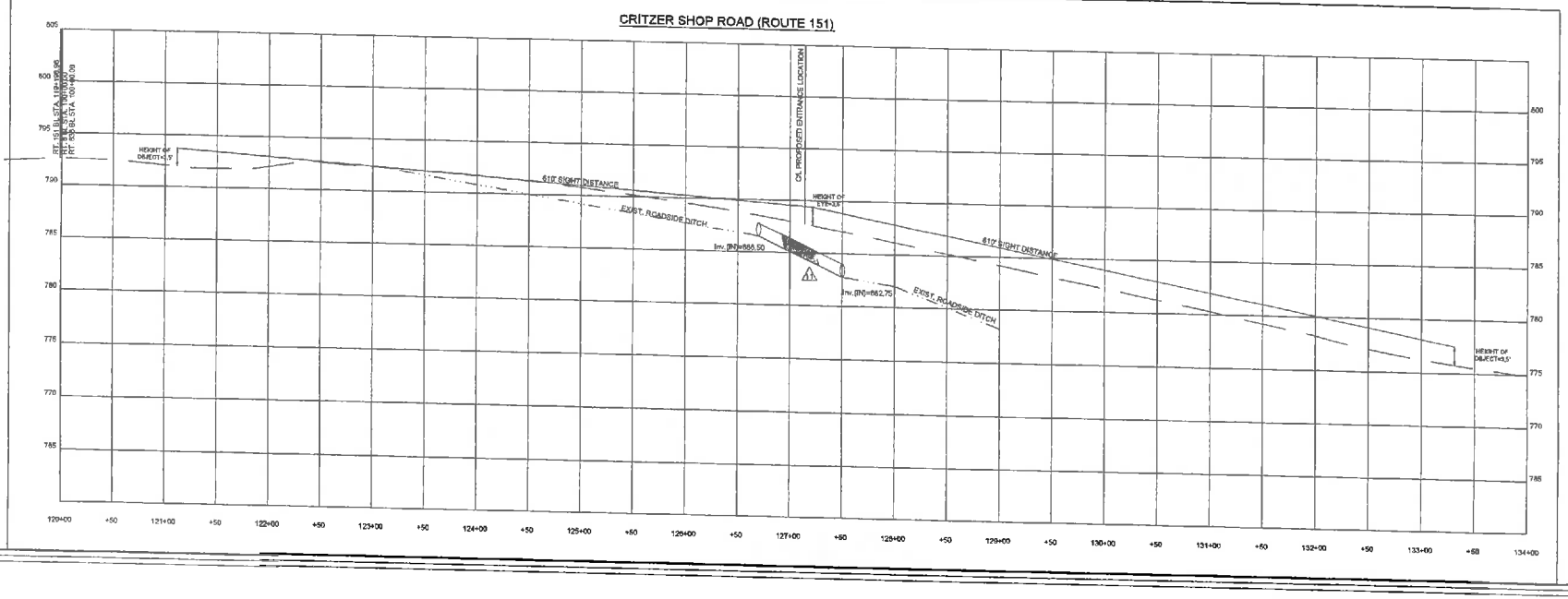
GRADING PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
Christopher C. Mathijon
Lic. No. 034572
PROFESSIONAL ENGINEER

FILE NUMBER
8572

SHEET
4 of 19





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REVISIONS
12/19/2014
Comments

DATE
Sept. 19, 2014

SCALE
As Shown

CONTOUR INTERVAL
2 Feet

ENTRANCE PLAN & TRAFFIC CONTROL
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
5 of 19

LD-269
Rev. 3-83

Project: Zenith Quest — Stm. Str. 10 to 12 | Plan Sheet No. ____ | Rev. Date ____ | Designer: AMG | Date: 12/18/2014 | Sheet 1 of 1

HYDROLOGICAL DATA
D.A. = 1.00 AC.

STATION: Culvert at Entrance
AHW Controls
100 yr. Flood plain ____ elev. ____
Design AHW depth ____ elev. ____
Structures ____ elev. ____
Freq. TWelev

Shoulder elev 788.61
Shoulder elev. 786.75
Skew - Cover 2 ft.
Inv. El. 786.5 — Orig. Gr. Elev. ____
So= 3.83 — L= 38
Inv. El. 782.75 — Orig. Gr. Elev. ____

DISCHARGES USED
Q 2 = 1.45 CFS
Q 10 = 2.01 CFS
Q 25 = 2.41 CFS
Q 100 = 2.96 CFS
Q ____ = ____ CFS

RISK ASSESSMENT
ADT ____
Detours Available ____ Length ____
Overtopping Stage ____
Flood Plain Management ____
Criteria and Significant Impact ____

CULVERT TYPE & SIZE	Q	Q/B	INLET CONT. HW/D	INLET CONT. HW	OUTLET CONTROL Ke	dc	(dc+D)/2	ho	H	LSo	HW	CONT. HW ELEV.	OUTLET VELOCITY C.M.	OUTLET VELOCITY Smooth	End Treat.	COMMENTS
2 year	1.45		0.54	0.68								787.18		Smooth		8" 3.83% D= 15 in. L= 38 ft.
10 year	2.01		0.65	0.81								787.31		Smooth		8" 3.83% D= 15 in. L= 38 ft.
25 year	2.41		0.73	0.91								787.41		Smooth		8" 3.83% D= 15 in. L= 38 ft.
100 year	2.96		0.82	1.03								787.53		Smooth		8" 3.83% D= 15 in. L= 38 ft.

SUMMARY & RECOMMENDATIONS:

Design Flood Exceed. Prob. ____ Elev. ____
Overtop Flood Exceed. Prob. ____ Elev. ____
Base Flood 1% Exceed. Prob. ____ Elev. ____

ENTRANCE CULVERT STORM STR #11

NOTE: PROPOSED PAVEMENT MUST TIE IN WITH EXISTING PAVEMENT

PAVEMENT JOINT DETAIL
NOT TO SCALE

PAVEMENT SECTION IN VDOT ROW
NOT TO SCALE

NOTE: PVMT. SECTION DESIGN TAKEN FROM VDOT PLANS ALL PAVING WITHIN THE R/W SHALL MATCH THIS SECTION

SECTION 6G.06 WORK ON THE SHOULDER WITH MINOR ENCROACHMENT
(FROM 2011 VIRGINIA WORK AREA PROTECTION MANUAL)

SUPPORT:
01 CHAPTER 6D AND SECTIONS 6F.62 AND 6G.05 CONTAIN ADDITIONAL INFORMATION REGARDING THE STEPS TO FOLLOW WHEN PEDESTRIAN OR BICYCLE FACILITIES ARE AFFECTED BY THE WORKSITE.

GUIDANCE:
02 WHEN WORK TAKES UP PART OF A LANE, VEHICULAR TRAFFIC VOLUMES, VEHICLE MIX (BUSES, TRUCKS, CARS, MOTORCYCLES, AND BICYCLES), SPEED, AND CAPACITY SHOULD BE ANALYZED TO DETERMINE WHETHER THE AFFECTED LANE SHOULD BE CLOSED, UNLESS THE LANE ENCROACHMENT PERMITS A REMAINING LANE WIDTH OF 11 FEET, THE LANE SHOULD BE CLOSED.
03 TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMUM LANE WIDTH OF 11 FEET IS ADEQUATE.
OPTION:
04 A LANE WIDTH OF 10 FEET MAY BE USED FOR SHORT-TERM STATIONARY WORK ON LOW-VOLUME (LESS THAN 500 VPD), LOWSPEED (BELOW 45 MPH) ROADWAYS WHEN VEHICULAR TRAFFIC DOES NOT INCLUDE LONGER AND WIDER HEAVY COMMERCIAL VEHICLES.
05 A LANE WIDTH OF 10 FEET MAY BE USED FOR WORK ACTIVITIES LOCATED ON ENTRANCE AND EXIT RAMPS OF LIMITED ACCESS HIGHWAYS.
06 A LANE WIDTH OF 10 FEET MAY BE USED FOR INTERMEDIATE-TERM STATIONARY OPERATIONS SUCH AS MILLING/PAVING OPERATIONS WHERE THE RESTRICTION IS LIMITED TO THE AREAS WHERE THE WORK ACTIVITIES ARE OCCURRING BY MOVING THE CHANNELIZING DEVICES OUT AS WORK PROGRESSES AND THEN BACK ONCE THE WORK ACTIVITY HAS PAST.
07 FOR LONG-TERM STATIONARY OPERATIONS SUCH AS CONSTRUCTION PROJECTS, A TRAVEL LANE WIDTH OF NO LESS THAN 10 FEET MAY BE ALLOWED ONLY WHEN A TRAFFIC ENGINEERING STUDY, AS DEFINED IN PARAGRAPH 08, IS MADE AND DOCUMENTED BY THE REGIONAL TRAFFIC ENGINEER OR AUTHORITY WITH JURISDICTION OVER THE ROADWAY.

STANDARD:
08 A TRAFFIC ENGINEERING STUDY SHALL CONSIDER AS A MINIMUM, TRAFFIC VOLUMES, VEHICLE MIX, SPEED, CAPACITY, AND TYPE OF OPERATION. THIS ASSESSMENT MUST DEMONSTRATE THAT IF NOT ALLOWED, TRAFFIC DELAYS AND BACK-UPS WILL CREATE UNACCEPTABLE SAFETY FACTORS AND/OR ROAD NETWORK FAILURE.
SUPPORT:
09 FIGURE TTC-5 ILLUSTRATES A METHOD FOR HANDLING VEHICULAR TRAFFIC WHERE THE STATIONARY OR SHORT DURATION WORK SPACE ENCROACHES SLIGHTLY INTO THE TRAVELED WAY.
10 FIGURE TTC-10 ILLUSTRATES THE METHOD OF HANDLING VEHICULAR TRAFFIC WHERE NON-LICENSED VEHICLE OPERATIONS ENCROACH INTO THE TRAVELWAY OF A LIMITED ACCESS HIGHWAY.

STANDARD:
11 DUE TO OCCASIONAL TRAVEL BY OVER WIDTH VEHICLES, WORK ZONES WHICH REDUCE THE ONE WAY TRAVEL PATH OF ROADWAYS OR RAMPS TO WIDTHS LESS THAN 14'-0" WIDE MEASURED FROM EDGELINE TO EDGELINE SHALL BE SIGNED WITH A ROAD NARROWS (W5-1) OR RAMP NARROWS (W5-4) SIGN AND A SUPPLEMENTAL PLAQUE MOUNTED BELOW STATING THE ACTUAL WIDTH OF THE ROADWAY OR RAMP ROUNDED DOWN TO THE NEAREST FOOT OR HALF FOOT INCREMENT, SEE FIGURE TTC-38.
GUIDANCE:
12 THE ROAD NARROWS OR RAMP NARROWS SIGN ASSEMBLY SHOULD BE PLACED APPROXIMATELY 1000 FEET IN ADVANCE OF THE RESTRICTED LOCATION, AS WELL AS IN ADVANCE OF THE LAST ALTERNATE ROUTE PRIOR TO THE LANE WIDTH RESTRICTION.

Page 6H-16 — August 2011

Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)
NOTES

Standard
1. On divided highways having a median wider than 8', right and left sign assemblies shall be required. See Note 1, TTC-4 for addition sign information.

Guidance
2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:
4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:
5. A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating, or strobe light shall be parked 80' - 120' in advance of the first work crew.
6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.
7. Taper length (L) and channelizing device spacing shall be at the following:

Speed Limit (mph)	Lane Width 9	Lane Width 10	Lane Width 11	Lane Width 12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum taper lengths for Limited Access highways shall be 1000 feet.				
Shoulder Taper = ½ L Minimum				

Taper Length (L) — Lane Width (Feet)

Location	Speed Limit 0 - 35	Speed Limit 36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'
* Spacing may be increased to this distance, but shall not exceed one access per ¼ mile.		

Channelizing Device Spacing — Speed Limit (mph)

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

8. The buffer space length shall be as shown in Table 6H-3 on Page 6H-8 for the posted speed limit.
9. A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.
10. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

August 2011 — Page 6H-17

Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)

SITE ENTRANCE PROFILE

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0205 - FAX 434-296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

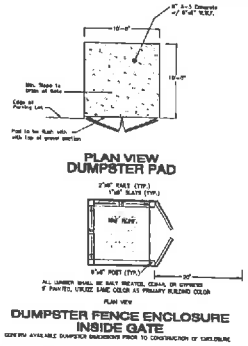
SCALE
AS SHOWN

CONTOUR INTERVAL
2 Feet

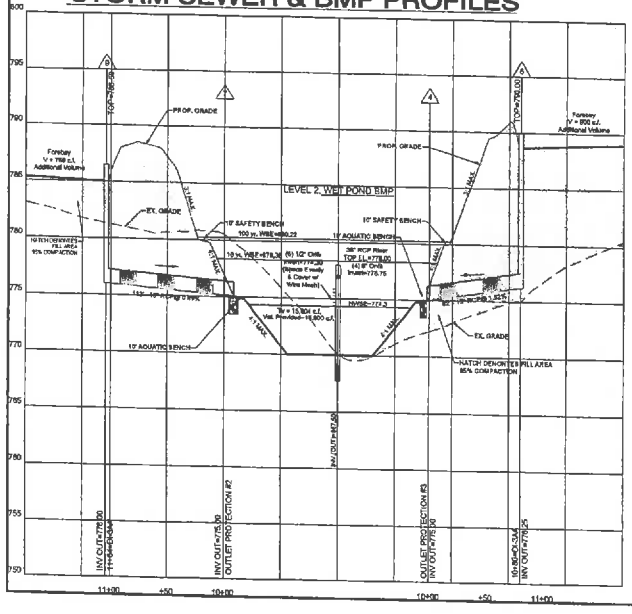
ENTRANCE PLAN & TRAFFIC CONTROL
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

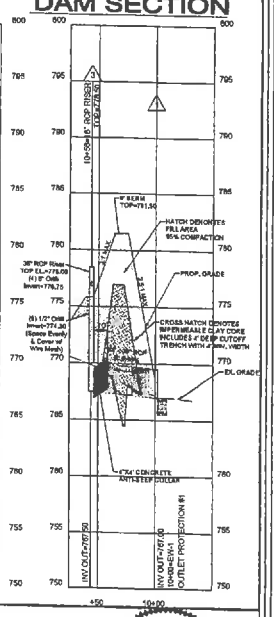
SHEET
8 of 19



STORM SEWER & BMP PROFILES



DAM SECTION



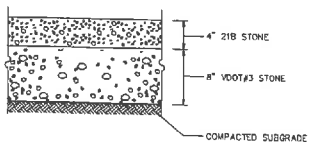
DITCH COMPUTATIONS (VDOT LD-268)

LOCATION: Drainage Ditches Around Building

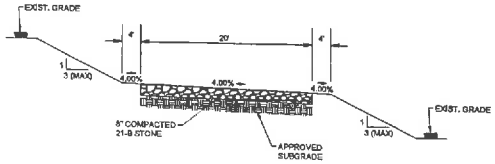
STATION TO STATION		FLOW	AREAS 0.35 C1	0.60 C2	0.70 C3	CA INCR.	CA ACCU.	Tc	I2	Q2	DIT or FILL	SLOPE FT/FT	LINING FACTOR	EARTH n=.035 VEL.	PROTECTIVE LINING n=.05 Dn	n=.05 VEL.	n=.05 DEP.	n=.05 Qn	n=.05 DEP.	I 10	Q 10	DEP.	REMARKS
NORTH																							
16+88	16+00	↓		0.34		0.17	0.17	5.00	5.18	0.88	Cut	0.0100		1.50						6.67	1.13	5"	
16+00	15+00	↓		0.26		0.14	0.31	5.01	5.18	1.60	Cut	0.0100		1.74						6.66	2.06	6"	
15+00	14+00	↓		0.26		0.13	0.44	5.03	5.17	2.28	Cut	0.0100		1.90						6.65	2.93	7"	
14+00	13+00	↓	0.11			0.04	0.48	5.05	5.17	2.47	Cut	0.0100		1.84						6.65	3.14	7"	
13+00	12+00	↓	0.19			0.07	0.55	5.07	5.16	2.81	Cut	0.0400		3.37		2.84				6.64	3.92	6"	
12+00	11+00	↓	0.12			0.04	0.59	5.10	5.15	3.02	Cut	0.0400		3.43		2.63				6.63	3.89	6"	
11+00	10+00	↓	0.25			0.09	0.67	5.14	5.14	3.47	Cut	0.0400		3.55		2.72				6.62	4.46	6"	
SOUTH																							
17+15	16+00	↓			0.41	0.29	0.29	5.00	5.18	1.49	Cut	0.0100		1.77						6.67	1.91	6"	
16+00	15+00	↓			0.21	0.15	0.43	5.02	5.17	2.26	Cut	0.0100		1.96						6.66	2.86	7"	
15+00	14+00	↓			0.19	0.13	0.57	5.04	5.17	2.93	Fill	0.0100		2.09						6.65	3.77	8"	
14+00	13+00	↓			0.18	0.13	0.70	5.06	5.16	3.61	Fill	0.0100		2.21						6.65	4.65	8"	
13+00	12+00	↓	0.06			0.02	0.72	5.08	5.16	3.70	Fill	0.0120		2.38						6.64	4.74	8"	
12+00	11+00	↓	0.05			0.02	0.74	5.10	5.15	3.78	Fill	0.0250		3.15		2.33				6.63	4.87	7"	
11+00	10+00	↓	0.05			0.02	0.75	5.14	5.14	3.87	Fill	0.0360		3.63		2.69				6.62	4.96	7"	
ALONG RT. 151																							
125+00	124+00	↓			0.81	0.41	0.41	5.06	5.16	2.12		0.0070		1.63						6.67	2.79	7"	Existing Ditch
124+00	126+00	↓			0.13	0.05	0.46	5.02	5.16	2.35		0.0175		2.37						6.66	3.00	6"	
125+00	126+00	↓			0.09	0.05	0.50	5.04	5.17	2.58	Fill	0.0222		3.04		2.33				6.65	3.33	6"	
129+00	126+58	↓			0.09	0.05	0.55	5.07	5.16	2.81	Fill	0.0400		3.37		2.58				6.64	3.62	6"	Str. 12
127+00	128+00	↓	0.08			0.03	0.57	5.00	5.18	2.97	Cut	0.0300		3.07		2.35				6.67	3.82	6"	Outfall Str. 10
129+00	129+00	↓	0.09			0.05	0.62	5.03	5.17	3.20	Cut	0.0560		4.27		3.27				6.66	4.11	6"	Existing Ditch
E/S Diversion Channel																							
	SB	↓	3.00			1.05	1.05	6.00	4.46	4.70	Fill	0.0120		2.52		1.87				5.81	6.10	9"	

STORM SEWER COMPUTATIONS (VDOT LD-229)

FROM POINT	TO POINT	DA (ACRES)	C	CA INCR.	CA ACCUM.	TC MINUTES	RAINFALL IN/HR	RUN-OFF CFS	INVERT UPPER	INVERT LOWER	LENGTH FEET	SLOPE %	DIAM. INCHES	CAPACITY CFS	VELOCITY F.P.S.	FLOW TIME MIN.
S	4	1.16	0.70	0.81	0.81	5.14	6.62	5.37	778.25	775.00	82	1.52%	18	7.97	6.89	0.20
B	7	1.09	0.46	0.50	0.50	5.14	6.62	3.32	778.00	775.00	112	0.60%	15	6.10	5.09	0.37



HEAVY DUTY GRAVEL



FIRE ACCESS ROAD
NOT TO SCALE

INLET COMPUTATIONS - @ 4" PER HOUR (VDOT LD-204)

INLET	L	STATION	DA	Da SUITE	d	C SUITE	CA	Tc (min)	CA SUITE	INTENSITY (in/hr)	Qdes CFS	Qco CFS	Qi SUITE FLOW	Si SUITE SLOPE	Si CROSS SLOPE	SUITE SPREAD	W FT	WET	Sw FT/FT	Tw/Ex	Sp	n	Sw= eT-W	SxFt/Ft = Sw-Sx	Lt SPR(ft) Part LENGTH	LTO	d(LT) FLOW DEPTH	E (in)	h FT	SHAPE BAR	dc e-RADE	depth ft	Qb CARRYOVER	SPREAD AT SAG (ft)	SPREAD REMARKS
S	2,5		1,16	1,16	0,70	0,70	0,81		0,81	4,0	3,26		3,26	0,025	0,05	3,5	2	0,566	0,0833	1,7	0,94	0,8	0,033	0,128	13,8	0,2	0,24	0,301	0,46	3,65		0,38		7,64	1" inside
B	2,5		1,09	1,09	0,46	0,46	0,50		0,50	4,0	2,01		2,01	0,025	0,05	3,0	2	0,478	0,0833	1,7	0,89	0,8	0,033	0,130	11,2	0,2	0,21	0,264	0,46	3,28		0,27		6,47	1" inside

INLET COMPUTATIONS - @ 6.5" PER HOUR (VDOT LD-204)

INLET	L	STATION	DA	Da SUITE	d	C SUITE	CA	Tc (min)	CA SUITE	INTENSITY (in/hr)	Qdes CFS	Qco CFS	Qi SUITE FLOW	Si SUITE SLOPE	Si CROSS SLOPE	SUITE SPREAD	W FT	WET	Sw FT/FT	Tw/Ex	Sp	n	Sw= eT-W	SxFt/Ft = Sw-Sx	Lt SPR(ft) Part LENGTH	LTO	d(LT) FLOW DEPTH	E (in)	h FT	SHAPE BAR	dc e-RADE	depth ft	Qb CARRYOVER	PART SPREAD AT SAG (ft)	SPREAD REMARKS
S	2,5		1,16	0,87	0,70	0,79	0,81		0,81	6,5	5,28		3,66	0,025	0,05	3,8	2	0,525	0,0833	1,7	0,90	0,8	0,033	0,125	17,3	0,1	0,26	0,345	0,46	4,53		0,62		10,42	Full spr
B	2,5		1,09	0,82	0,46	0,46	0,50		0,56	6,5	3,26		2,44	0,025	0,05	3,2	2	0,829	0,0833	1,7	0,82	0,8	0,033	0,127	14,0	0,2	0,23	0,299	0,46	3,86		0,38		7,66	Full spr

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PHONE: 434-977-0205 - FAX: 434-296-2229 - EMAIL: INFO@ROUDABUSH.COM

REVISIONS
12/19/2014
Comments

DATE
Sept. 15, 2014

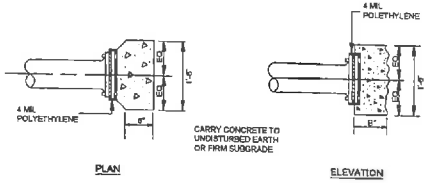
SCALE
HORZ. 1" = 50'
VERT. 1" = 10'

CONTOUR INTERVAL
N/A

PROFILES, COMPUTATIONS & DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

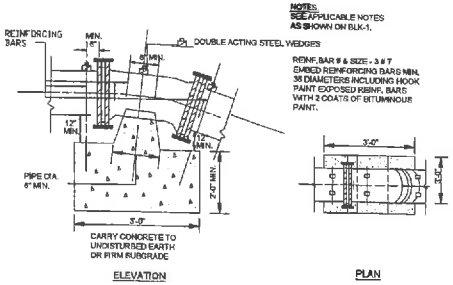
FILE NUMBER
9572

SHEET
7 of 19



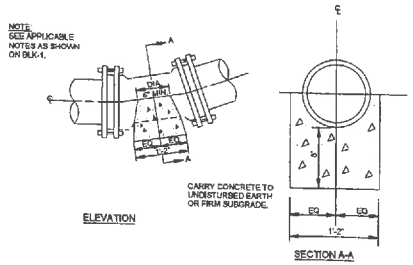
NOTE:
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI.

HYDRANT BLOCKING DETAIL
NOT TO SCALE



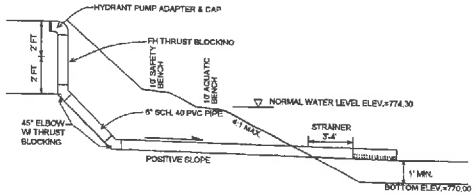
NOTE:
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI.

UPPER VERTICAL BEND BLOCKING DETAIL

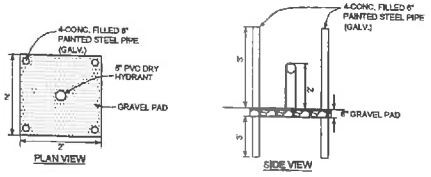


NOTE:
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI.

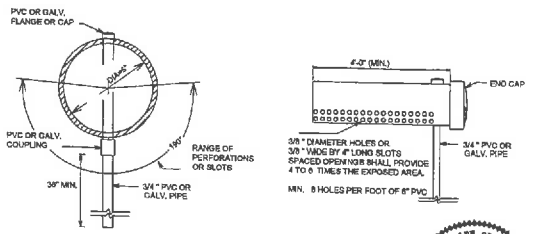
LOWER VERTICAL BEND BLOCKING DETAIL



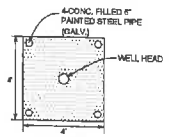
DRY HYDRANT DETAIL
NOT TO SCALE



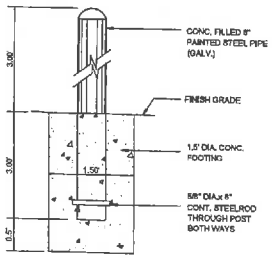
DRY HYDRANT
PROTECTIVE BASE PAD DETAILS
NOT TO SCALE



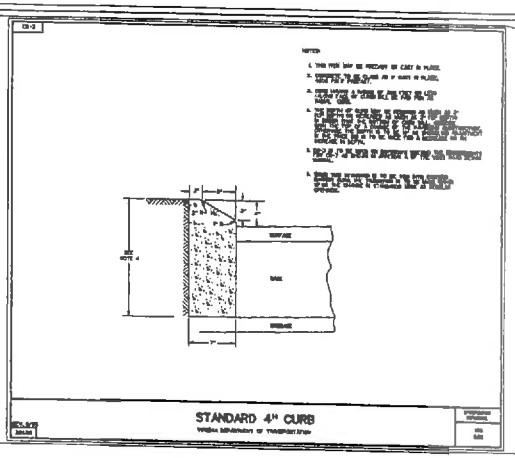
STRAINER AND
PIPE SUPPORT DETAILS
NOT TO SCALE

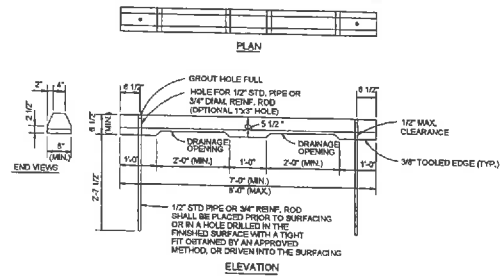


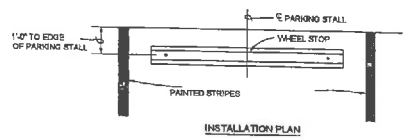
WELL HEAD PROTECTION
BOLLARD LOCATION DETAIL
NOT TO SCALE



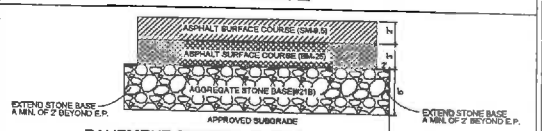
TYPICAL BOLLARD DETAIL
NOT TO SCALE



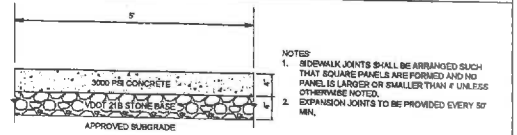




PRECAST CONCRETE WHEEL STOP
NOT TO SCALE



PAVEMENT SECTION OUTSIDE OF VDOT ROW
NOT TO SCALE



NOTES:
1. SIDEWALK JOINTS SHALL BE ARRANGED SUCH THAT SQUARE PANELS ARE FORMED AND NO PANEL IS LARGER OR SMALLER THAN 4' UNLESS OTHERWISE NOTED.
2. EXPANSION JOINTS TO BE PROVIDED EVERY 50' MIN.

CONCRETE SIDEWALK
NOT TO SCALE

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A SERVICE DISABLED VETERAN OWNED SMALL BUSINESS
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
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REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

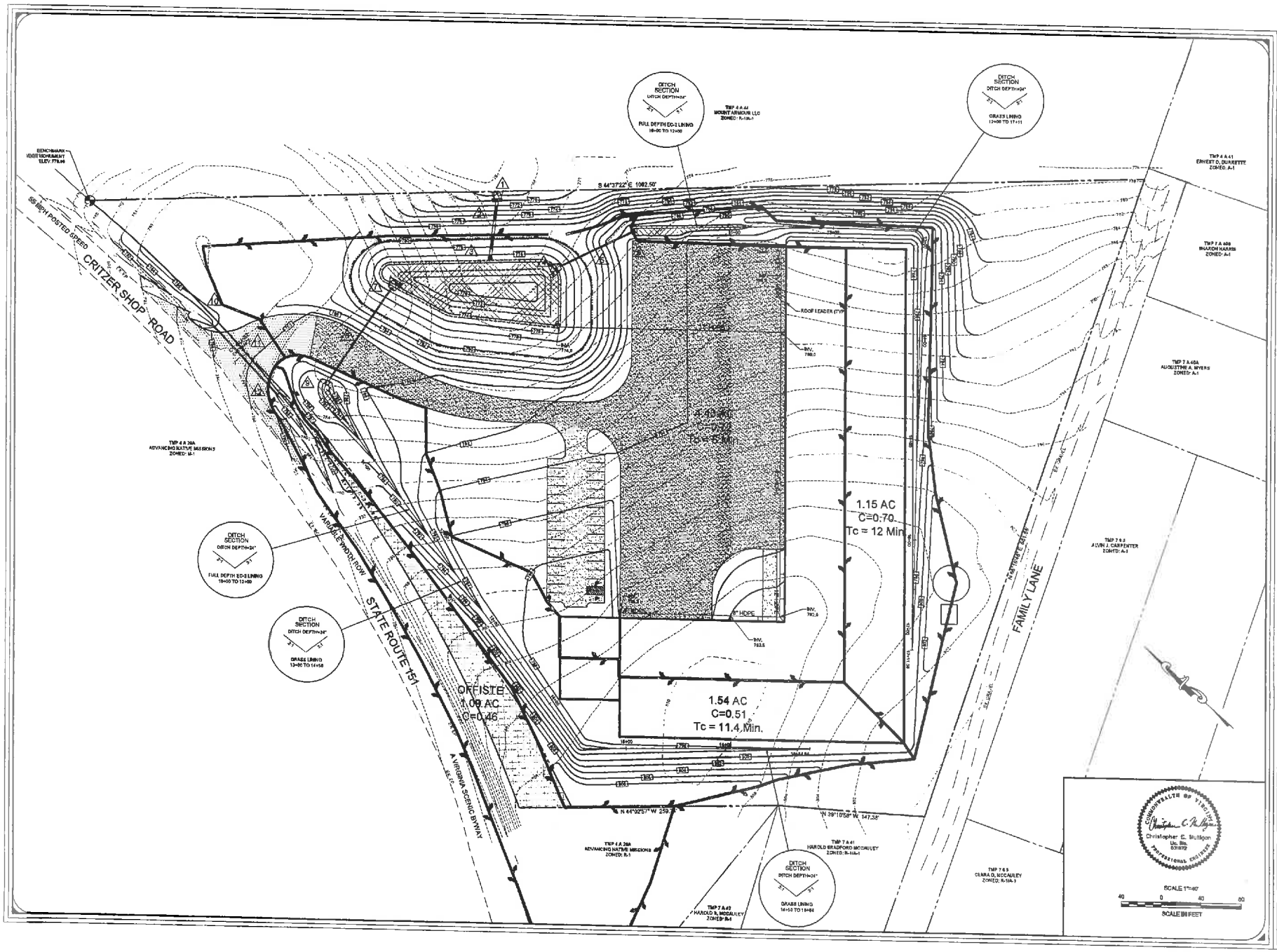
SCALE
N/A

CONTOUR INTERVAL
N/A

TYPICAL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
8 of 19



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REVISIONS
12/19/2014
Comments

DATE
Sept. 19, 2014

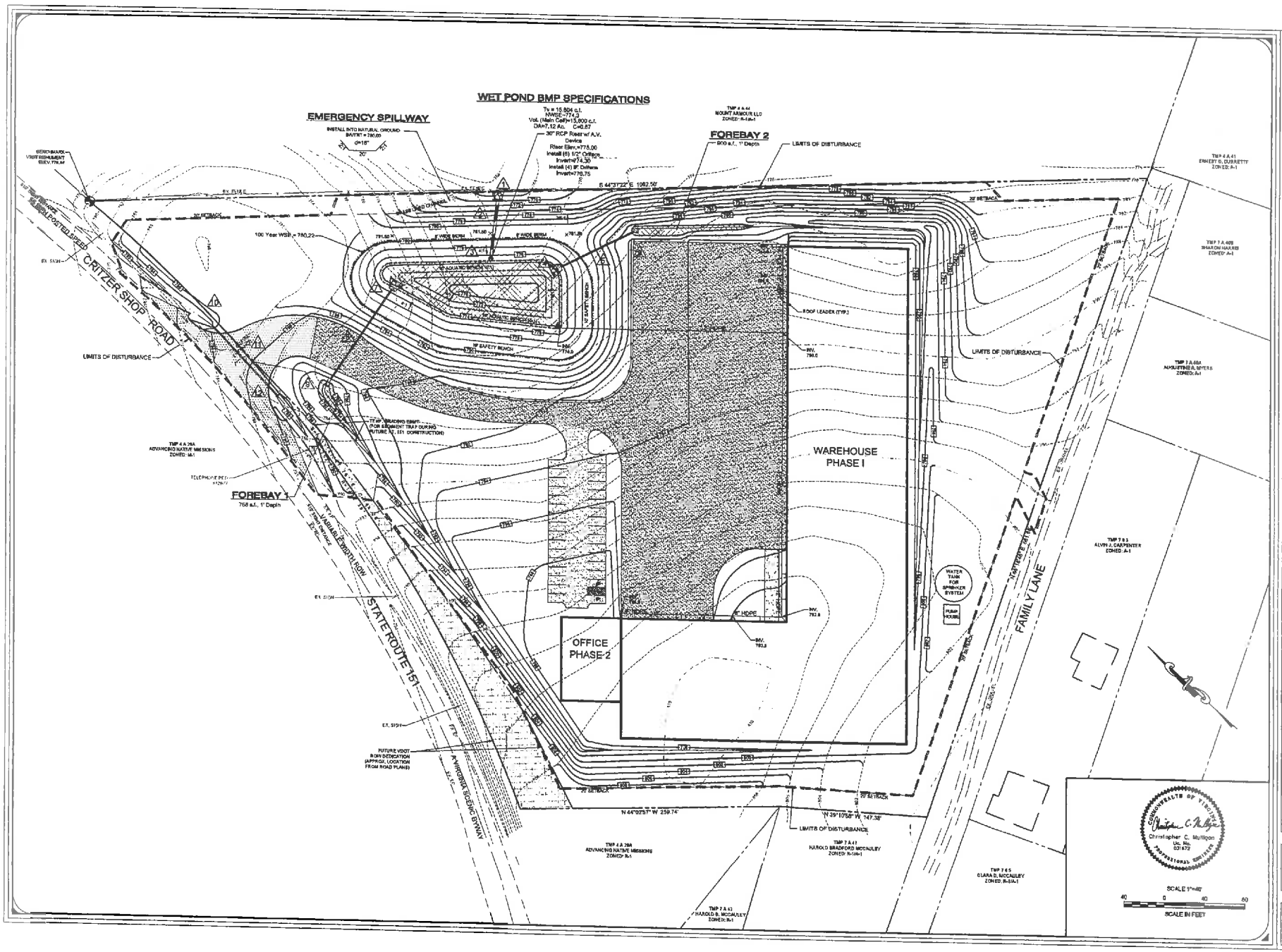
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

DRAINAGE MAP
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
9 of 19



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REVISIONS
12/18/2014
Comments

DATE
SEPT. 19, 2014

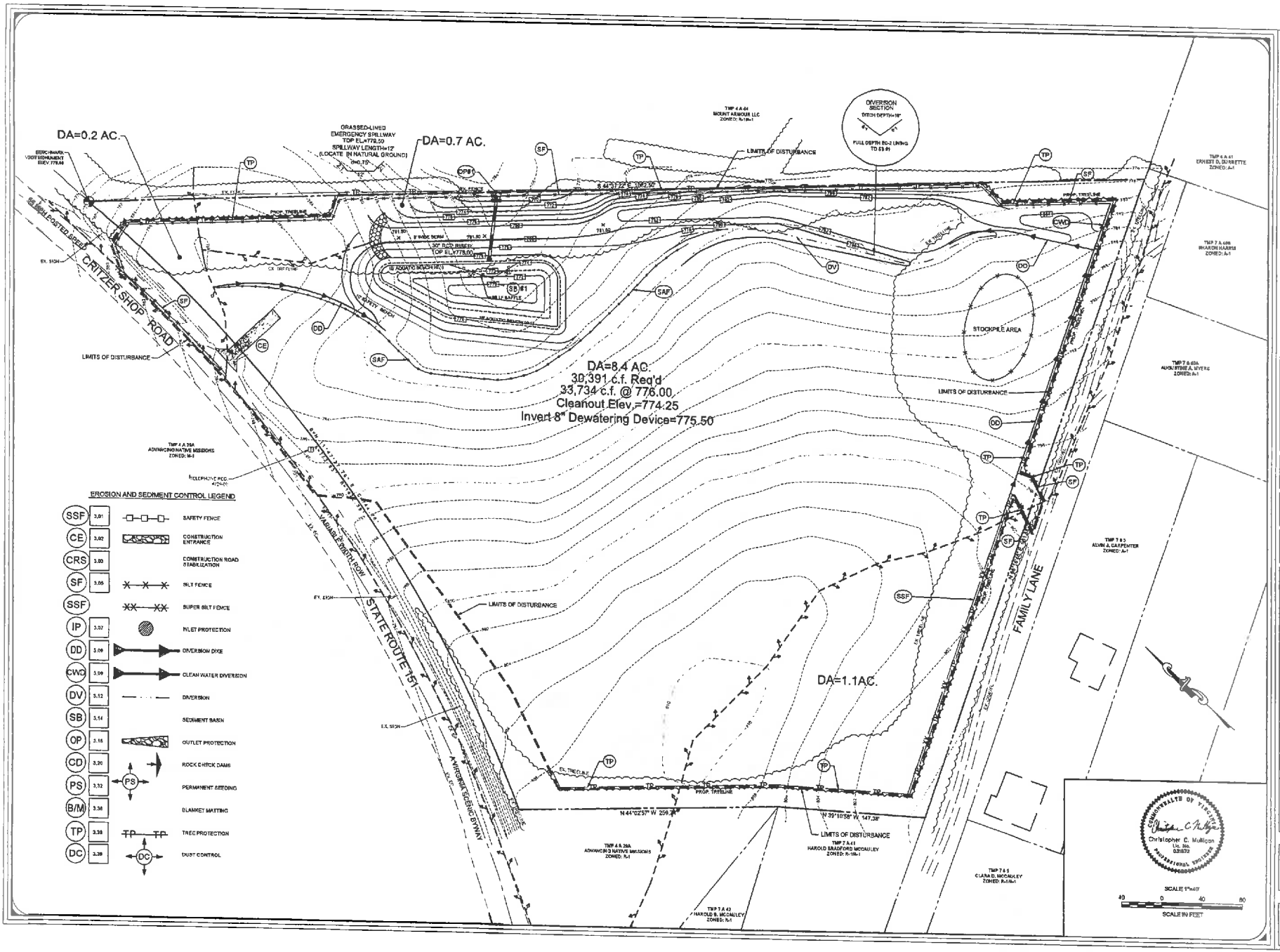
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

SWM/BMP PLAN
ZENITH QUEST
AFTON MOUNTAIN
SWM & BMP PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
10 of 19



ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
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REVISIONS
12/19/2014
Comments

DATE
Sept. 19, 2014

SCALE
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CONTOUR INTERVAL
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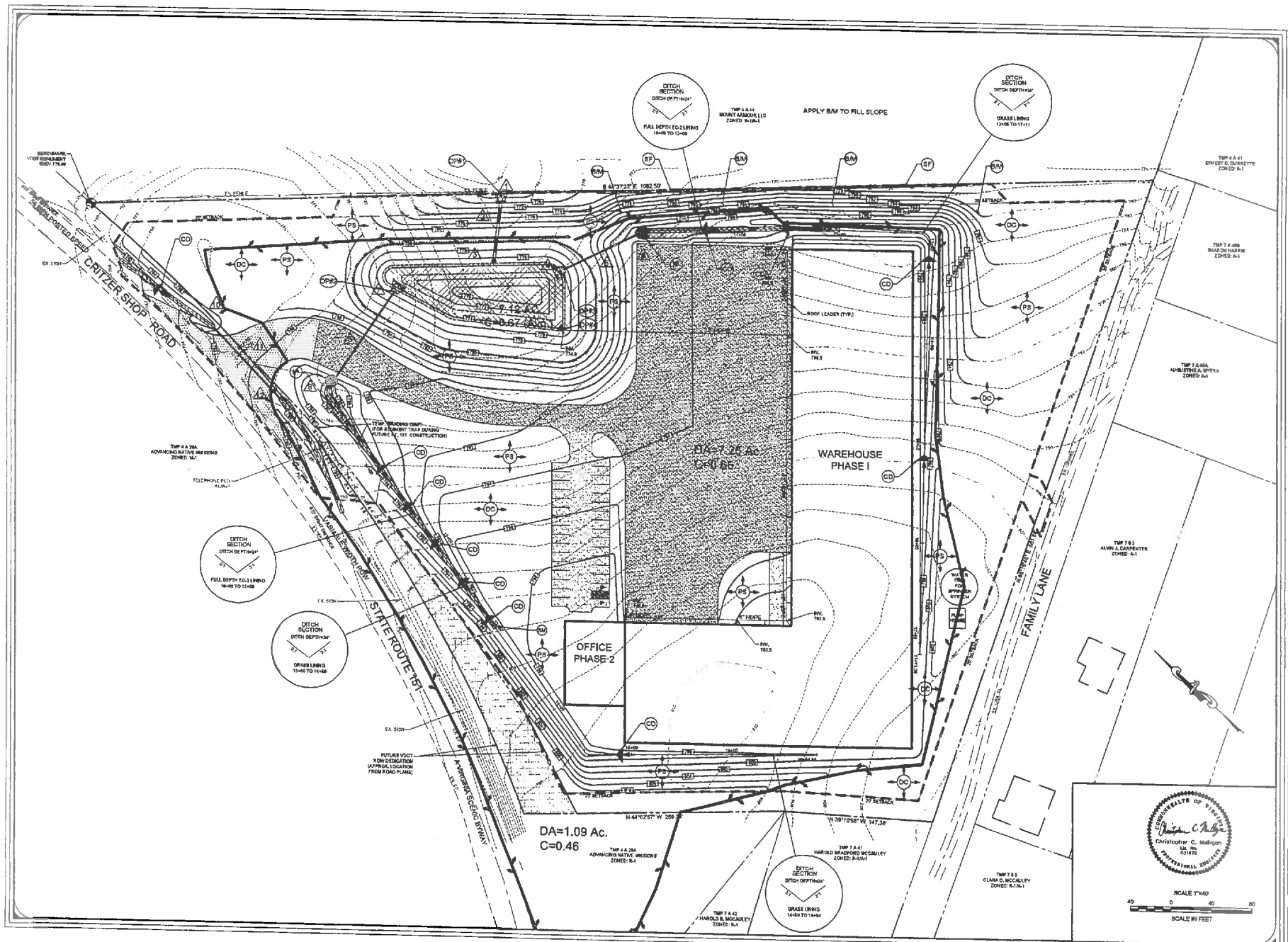
EROSION CONTROL PLAN - PHASE 1
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
11 of 19



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EROSION CONTROL PLAN - PHASE 2
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
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12 of 19

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS (Section 4VAC50-30-40)

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

CONTRACTOR SHALL ESTABLISH A STABILIZED SITE, AND NOT ALLOW ANY SEDIMENT TO EXIT THE PROJECT SITE.

2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

SOIL STOCKPILES TO BE LOCATED ONSITE. EXCESS MATERIAL NOT USED FOR ON SITE GRADING TO BE HAULED TO AN APPROVED SITE WITH ADEQUATE EROSION CONTROL PROTECTION.

3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

CONTRACTOR SHALL ESTABLISH A VEGETATIVE COVER ON ALL DENUDED AREAS.

4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

CONTRACTOR SHALL INSTALL PERIMETER SEDIMENT BARRIERS TO TREAT STORM RUNOFF AS THE FIRST STEP OF CLEARING AND GRADING.

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

CONTRACTOR SHALL STABILIZE ALL EARTHEN EROSION STRUCTURES IMMEDIATELY AFTER INSTALLATION.

6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

THE SEDIMENT BASIN IS SIZED FOR THE CONTRIBUTING DRAINAGE AREA.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE (3.0) ACRES. SEE SIZING TABLE FOR DIMENSIONS.

B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

THE SEDIMENT BASIN IS SIZED BASED ON BARE SOIL CONDITIONS FOR THE 25-YEAR STORM.

7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

THIS APPLIES TO THE AREAS GRADED DURING SITE IMPROVEMENTS.

8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

THERE ARE NO CRITICAL AREAS ONSITE.

9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

THERE ARE NO CRITICAL AREAS ONSITE.

10. ALL STORM SEWER INLETS THAT ARE MADE OPERATIONAL DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

INLET SHALL BE PROTECTED WITH INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE PIPES.

11. BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

CONTRACTOR TO INSTALL THE APPROPRIATE OUTLET PROTECTION AND PERMANENT CHANNEL LINING PRIOR TO CHANNELS OR PIPES ARE MADE OPERATIONAL.

12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

THERE ARE NO CRITICAL AREAS ONSITE.

13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIAL SHALL BE PROVIDED.

THERE ARE NO CRITICAL AREAS ONSITE.

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

THERE ARE NO CRITICAL AREAS ONSITE.

15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

THERE ARE NO CRITICAL AREAS ONSITE.

16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
   A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
   B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
   C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
   D. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
   E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
   F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

THIS APPLIES TO ALL UTILITY INSTALLATION OPERATIONS INCLUDING WATER, SEWER, POWER, CABLE OR GAS.

17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ADJACENT ROADS CLEAN FROM SOIL BUILD-UP.

18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

CONTRACTOR SHALL STABILIZE SITE, AND OBTAIN INSPECTOR APPROVAL PRIOR TO REMOVING ANY EROSION CONTROL MEASURES.

19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORM WATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA: ALL CONCENTRATED RUN-OFF IS DIRECTED TO DRAINAGE DITCHES OR INLETS AND OUTFALLS INTO A TEMPORARY SEDIMENT TRAP. THERE IS ALSO AN EXISTING WET POND LOCATED AT THE TOE OF THE CONVEYANCE CHANNEL.
   A. CONCENTRATED STORM WATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

ALL RUN-OFF IS CONVEYED TO THE SAME ORIGINAL OUTFALL LOCATION.

   B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
      (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION;
      OR
      (2) (a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORM WATER WILL NOT OVERTOP THE CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS; AND

THE CHANGES IN RUN-OFF ASSOCIATED WITH THE DEVELOPMENT ARE QUANTIFIED IN THE HYDROLOGIC ANALYSIS AND SUMMARIZED IN THE NARRATIVE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN REVIEWING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN REVIEWING AUTHORITY.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION AND SEDIMENT CONTROL NARRATIVE

PRIOR TO CONSTRUCTION

1. CONTRACTOR SHALL OBTAIN PERMITS TO WORK WITHIN STATE RIGHT-OF-WAY (VDOT LAND-USE PERMIT).
2. CONTRACTOR SHALL COORDINATE WITH OWNER TO OBTAIN VSMP PERMITS, AS REQUIRED BY THE STATE DEPARTMENT OF CONSERVATION AND RECREATION (DEQ).
3. CONTRACTOR SHALL OBTAIN LAND DISTURBANCE PERMIT FROM THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO BEGINNING CONSTRUCTION. A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, THE CERTIFIED LAND DISTURBER, AND THE ENVIRONMENTAL INSPECTOR MAY ALSO BE REQUIRED. ALLOW 72 HOURS FOR COORDINATION AND SCHEDULING OF PRE-CONSTRUCTION MEETING

PROJECT DESCRIPTION

THE PROJECT INVOLVES THE CONSTRUCTION OF AN 80,000 SF WAREHOUSE AND 10,000 SF OFFICE BUILDING ALONG WITH THE ASSOCIATED INFRASTRUCTURE. THE INFRASTRUCTURE INCLUDES AN ACCESS DRIVE, PARKING AREA, LOADING AREA, SEPTIC DRAIN FIELD, STORM SEWER, STORMWATER MANAGEMENT POND AND OTHER ASSOCIATED UTILITIES. APPROXIMATELY 8.4 ACRES WILL BE DISTURBED DURING THE CONSTRUCTION OF THIS PROJECT.

EXISTING SITE CONDITIONS

THE PROJECT SITE IS TEN ACRES LOCATED ON THE EAST SIDE OF CRIZTER SHOP ROAD (ROUTE 151) APPROXIMATELY 500 FEET NORTH OF THE AFTON MOUNTAIN ROAD (ROUTE 639) INTERSECTION. THE PROJECT SITE IS CURRENTLY COVERED BY A LARGE MEADOW WITH A FEW LONE TREES AND A FEW THICKETS OF TREES. THREE OF THE FOUR PROPERTY LINES ARE WOODED; THE NORTHEAST, THE SOUTHEAST AND SOUTHWEST PROPERTY LINES.

CRITICAL AREAS

THERE ARE NO CRITICAL AREAS WITHIN THE PROJECT AREA AND THE LAND DISTURBANCE WILL BE PROTECTED BY A TEMPORARY SEDIMENT BASIN, LATER CONVERTED TO A PERMANENT WET POND/BMP FACILITY.

ADJACENT AREAS

THE PROPERTY TO THE NORTHEST IS CURRENTLY VACANT WITH MEADOWS LOCATED BEYOND THE TREE'D FENCE ROW THAT SEPARATES THE PROPERTIES. FAMILY LANE IS LOCATED ON THE SOUTHEAST PROPERTY LINE. THERE ARE THREE RESIDENTIAL PROPERTIES THAT ACCESS FAMILY LANE THAT ARE DIRECTLY ADJACENT TO THE PROJECT SITE. TO THE SOUTHEAST, THERE ARE TWO RESIDENTIAL PROPERTIES AND A VACANT PROPERTY. THE SITE IS BOUND TO THE NORTHWEST BY CRITZER SHOP ROAD (ROUTE 151). THE PROPERTY ACROSS CRITZER SHOP ROAD IS A NON-PROFIT WAREHOUSE.

OFF-SITE AREAS

THERE IS APPROX.1.06 AC. OF RUNOFF ALONG CRITZER SHOP ROAD THAT COMBINES WITH THE SITE'S DEVELOPED RUNOFF AND SHALL BE CONTROLLED VIA THE SEDIMENT BASIN.

SOILS

22B—HAYESVILLE LOAM (2 TO 7 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 6 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM. HAZARD OF EROSION IS SLIGHT. NO FLOODING HAZARD. SEASONAL HIGH WATER TABLE IS MORE THAN 5 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

22C—HAYESVILLE LOAM (7 TO 15 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 5 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM. HAZARD OF EROSION IS SLIGHT. NO FLOODING HAZARD. SEASONAL HIGH WATER TABLE IS MORE THAN 5 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

22D—HAYESVILLE LOAM (15 TO 25 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 6 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS HIGH. HAZARD OF EROSION IS MODERATE. NO FLOODING HAZARD. SEASONAL HIGH WATER TABLE IS MORE THAN 5 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

52B—WINTERGREEN LOAM (2 TO 7 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 3 INCHES THICK. SUBSURFACE SOIL IS STRONG BROWN LOAM TO A DEPTH OF 7 INCHES. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 36 INCHES AND RED CLAY WITH PINKISH WHITE AND STRONG BROWN MOTTLES TO APPROXIMATELY 62 INCHES.

AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM. HAZARD OF EROSION IS SLIGHT. SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

ALL SOILS ON SITE
THE HIGH CONTENT OF CLAY IN THE SUBSURFACE LAYER INCREASES THE DIFFICULTY OF DIGGING, FILLING, AND COMPACTING THE SOIL MATERIAL IN SHALLOW EXCAVATIONS.

STRUCTURAL PRACTICES

1. TEMPORARY CONSTRUCTION ENTRANCE (3.02) - A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE EXISTING GRAVEL ENTRANCE OFF OF CRITZER SHOP ROAD (ROUTE 151).
2. ROAD STABILIZATION (3.03) - ACCESS ROADS, PARKING AREAS, AND OTHER ON-SITE VEHICLE TRANSPORTATION ROUTES SHALL BE STABILIZED WITH STONE IMMEDIATELY AFTER GRADING.
3. SILT FENCE BARRIER (3.05) - SILT FENCE BARRIERS WILL BE INSTALLED TO FILTER STORM RUNOFF FROM SHEET FLOW AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. SUPER SILT FENCE BARRIER - WIRE-REINFORCED SILT FENCE BARRIER WILL BE INSTALLED TO FILTER RUNOFF FROM SHEET FLOW AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
5. INLET PROTECTION (3.07) - INLET PROTECTION WILL BE INSTALLED AT THE PROPOSED STORM DRAIN INLET PRIOR TO FINAL STABILIZATION OF THE SITE.
6. TEMPORARY DIVERSION DIKES (3.09) - A SYSTEM OF DIVERSION DIKES TO DIRECT THE FLOW OF STORM RUNOFF INTO THE SEDIMENT BASIN WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
7. CLEANWATER DIVERSION DIKES - A SYSTEM OF DIVERSION DIKES TO DIRECT THE FLOW OF CLEAN OFFSITE WATER AROUND THE SITE WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
8. DIVERSION (3.12) - A DIVERSION CHANNEL TO DIRECT THE FLOW OF STORM RUNOFF INTO THE SEDIMENT BASIN WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
9. TEMPORARY SEDIMENT BASIN (3.14) - A TEMPORARY SEDIMENT BASIN IS TO BE CONSTRUCTED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. CALCULATIONS FOR THE SEDIMENT BASIN ARE SHOWN WITH THE EROSION AND SEDIMENT CONTROL DETAIL FOR THE SEDIMENT BASIN.
10. OUTLET PROTECTION (3.18) - OUTLET PROTECTION WILL BE INSTALLED AT THE END OF ALL STORM SEWER PIPES. CALCULATIONS FOR THE OUTLET PROTECTION ARE SHOWN WITH THE EROSION AND SEDIMENT CONTROL DETAILS. THE RIPRAP SHOULD BE CHECKED PERIODICALLY TO ENSURE SCOURING IS NOT OCCURRING BENEATH FABRIC UNDERLINING OF THE RIPRAP LAYER.
11. CHECK DAM (3.20) - ROCK CHECK DAMS WILL BE INSTALLED IN THE PROPPOSED DITCHES TO REDUCE THE VELOCITY OF CONCENTRATED FLOWS WHICH WILL HELP IN THE ESTABLISHMENT OF THE GRASS LINING. AFTER THE UPSLOPE AREA IS STABILIZED, THE CHECK DAMS MAY BE REMOVED AND PROPERLY DISPOSED IN ACCORDANCE WITH VECSH REGULATIONS.

VEGETATIVE PRACTICES

1. SURFACE ROUGHENING (3.29) - ALL AREAS WITH A GRADE STEEPER THAN 3:1 SHALL BE STAIR-STEP GRADED OR GROOVED (PLATE 3.29-4) TO AID IN GRASS ESTABLISHMENT, INCREASE INFILTRATION, AND TO SLOW RUNOFF VELOCITIES.
2. TOPSOILING & STOCKPILING (3.30) - TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILES ARE TO BE STABILIZED WITH TEMPORARY VEGETATION OR TO HAVE SILT FENCE INSTALLED ALONG THE LOWER PERIMETER TO PROTECT DOWNSTREAM AREAS.
3. TEMPORARY SEEDING (3.31) - AREAS NOT BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED MIXTURE ACCEPTABLE FOR THAT TIME OF YEAR. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
4. PERMANENT SEEDING (3.32) - AREAS BROUGHT TO FINAL GRADE SHALL BE STABILIZED WITH A PERMANENT SEED MIXTURE ACCEPTABLE FOR THE PIEDMONT REGION. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
5. MULCH (3.35) - PLANT RESIDUES OR OTHER SUITABLE MATERIALS SHALL BE APPLIED TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. THIS PRACTICE SHOULD BE APPLIED TO ALL SEEDING OPERATIONS, OTHER PLANTER MATERIALS WHICH DO NOT PROVIDE ADEQUATE SOIL PROTECTION BY THEMSELVES, AND BARE AREAS WHICH CANNOT BE SEEDED DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
6. EROSION CONTROL BLANKETS (3.36) - EROSION CONTROL BLANKETS WILL BE INSTALLED ON FILL SLOPES WITH A SLOPE GREATER THAN 3:1 FOLLOWING FINAL GRADING AND SEEDING. EROSION CONTROL BLANKETS WILL ALSO BE INSTALLED IN DITCHES WHERE POTENTIAL EROSIVE VELOCITIES MAY EXIST AS DETERMINED BY ENGINEERING CALCULATIONS. THIS WILL PROTECT FROM RILL AND GULLY EROSION. SEE EROSION CONTROL PHASE 2 PLAN FOR LOCATION.
7. TREE PROTECTION (3.38) - THE TREE FENCE BARRIER WILL BE INSTALLED TO PROTECT THE TREES OUTSIDE OF THE LIMITS OF DISTURBANCE AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
8. DUST CONTROL (3.39) - DUST CONTROL METHODS MUST BE USED TO REDUCE THE AMOUNT OF AIRBORNE DUST DURING ALL PHASES OF CONSTRUCTION WHERE SOIL IS EXPOSED OR DISTURBED.

MANAGEMENT STRATEGIES

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS THE FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
3. THE SEDIMENT BASIN SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EVERY RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE-HALF OF THE DESIGN VOLUME OF THE WET STORAGE.
4. TEMPORARY SEEDING OR OTHER STABILIZATION METHOD WILL FOLLOW IMMEDIATELY AFTER GRADING.
5. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
6. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
7. WITHIN 30 DAYS AFTER BEING NOTIFIED BY THE EROSION AND SEDIMENT CONTROL ADMINISTRATOR, THE TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE CLEANED UP OR REMOVED, AND ANY SEDIMENT TRAPS OR SEDIMENT BASINS CAN BE CLEANED OUT OR CONVERTED TO PERMANENT STORMWATER MANAGEMENT FACILITIES.
8. THE STORMWATER MANAGEMENT FACILITIES SHOULD BE CHECKED REGULARLY BY THE OWNER TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAVE NOT BEEN DAMAGED BY EROSION. THE EMERGENCY SPILLWAY SHALL BE CHECKED REGULARLY TO ENSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION RESISTANT. GRASS SHALL BE KEPT MOWN BELOW A HEIGHT OF 15" AND THE OUTLET SHOULD BE CHECKED FOR CLOGGING.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH STRAW AND SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE IN ACCORDANCE TO STANDARD AND SPECIFICATION 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ANY FERTILIZER AND LIME APPLICATIONS SHALL BE IN ACCORDANCE WITH SOIL TEST RESULTS. ALL SEEDED AREAS WILL BE STRAW MULCHED TO PROTECT AGAINST RILL EROSION AND TO PRESERVE SOIL MOISTURE THAT WILL ENHANCE SEED GERMINATION. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.

STORMWATER RUNOFF CONSIDERATIONS

CALCULATIONS INDICATE THAT THERE WILL BE A NET INCREASE IN POLLUTANTS AND RUNOFF VOLUME AS A RESULT OF THE THE IMPERVIOUS SURFACES PROPOSED WITH THIS DEVELOPMENT. IN PARTICULAR, THE VIRGINIA RUNOFF REDUCTION METHODOLOGY HAS BEEN UTILIZED TO QUANTIFY THE CHHAGES, AND A WET POND SHALL BE PROVIDED FOR STORMWATER MANAGEMENT. INITIALLY INSTALLED AS A TEMPORARY SEDIMENT BASIN, THE BASIN SHALL BE CONSTRUCTED TO THE FINAL BMP SPECIFICATIONS AND INCLUDES BOTH AN AQUATIC AND SAFETY BENCH. IN ADDITION, THE POND HAS BEEN SIZED TO TREAT AND DETAIN ALL INCREASES IN RUNOFF FROM THE PROPOSED DEVELOPED AT REDUCED, PRE-DEVELOPED RATES. REFER TO THE BMP PLAN FOR BMP LOADING, DESIGN VOLUME SIZING, ROUTING CALCULATIONS, DESIGN AND SPECIFICATION INFORMATION.

MAINTENANCE

1. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.
2. THE CONSTRUCTION ENTRANCE SHALL BE CHECKED DAILY FOR SOIL BUILDUP. IF THE ENTRANCE BECOMES CLOGGED WITH SOIL AND FAILS TO PREVENT TRANSPORTATION OF SOIL ONTO THE ROADWAY, ADDITIONAL STONE, REPLACEMENT OF STONE, OR A WASH-RACK MAY BE REQUIRED.
3. SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.
4. DIVERSION DIKES SHALL BE INSPECTED AFTER EVERY STORM AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, OUTLET, OR SEDIMENT TRAPPING FACILITY AS NECESSARY. ONCE EVERY TWO WEEKS, WHETHER A STORM EVENT HAS OCCURRED OR NOT, THE MEASURE SHALL BE INSPECTED AND REPAIRS MADE IF NEEDED. DAMAGES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH WORKING DAY.
5. STORMWATER CONVEYANCE CHANNELS:
   5.1. GRASS LINED CHANNELS - DURING THE INITIAL ESTABLISHMENT, GRASS LINED CHANNELS SHOULD BE REPAIRED IMMEDIATELY AND RE-ESTABLISHED IF NECESSARY. AFTER GRASS HAS BECOME ESTABLISHED, THE CHANNEL SHOULD BE CHECKED PERIODICALLY TO DETERMINE IF THE GRASS IS WITHSTANDING FLOW VELOCITIES WITHOUT DAMAGE. IF THE CHANNEL IS TO BE MOWED, IT SHOULD BE DONE IN A MANNER THAT IT WILL NOT DAMAGE THE GRASS.
   5.2. RIPRAP-LINED CHANNELS - RIPRAP LINED CHANNELS SHOULD BE CHECKED PERIODICALLY TO ENSURE THE SCOUR IS NOT OCCURRING BENEATH FABRIC UNDERLINING OF THE RIPRAP LAYER. THE CHANNEL SHOULD ALSO BE CHECKED TO DETERMINE THE STONES ARE NOT DISLODGED BY LARGE FLOWS.
   5.3. IF SEDIMENT IS DEPOSITED IN A GRASS-LINED CHANNEL, IT SHOULD BE REMOVED PROMPTLY TO PREVENT DAMAGE TO THE GRASS. SEDIMENT DEPOSITED IN A RIPRAP CHANNEL SHOULD BE REMOVED WHEN IT REDUCES THE CAPACITY OF THE CHANNEL.
6. CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EVERY RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE-HALF OF THE ORIGINAL HEIGHT OF THE MEASURE. REGULAR INSPECTIONS SHALL BE MADE TO INSURE THE CENTER OF EACH DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHOULD BE CORRECTED IMMEDIATELY.
7. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
8. ALL RUNOFF SHALL BE DIRECTED INTO THE SEDIMENT BASIN THROUGHOUT CONSTRUCTION AND UNTIL THE SITE IS FULLY STABILIZED. REFER TO THE BMP PLAN FOR CONVERSION INTO THE PERMANENT FACILITY.
9. A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS REQUIRING PERMANENT SEEDING.
10. MAINTAIN PERMANENT MAINTENANCE ACCESS TO THE FOREBAY AREAS. DEMARCATION MARKERS SHOULD BE INSTALLED INTO THE FORBAY AREAS TO INDICATE SEDIMENT CLEANOUT LEVELS.

CALCULATIONS

PLEASE REFER TO THE DETAILS, STORM SEWER AND HYDRAULIC CALCULATIONS FOR THE PERFORMANCE OF THE STORM SEWER, DITCHES, AND SEDIMENT BASIN. ALSO REFER TO THE WATER QUALITY CALCULATIONS FOR COMPLIANCE WITH THE VRRM REGULATIONS, INCLUDING THE ACCOMPANYING WET POND SPECIFICATIONS, SPECIFICATION # 14, EARTHEN BERM CONSTRUCTION, FOREBAY SIZING AND PLANTING SCHEDULE.

SEQUENCE OF CONSTRUCTION

1. CONTRACTOR INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION, CLEAN WATER DIVERSION AS FIRST STEP IN CONSTRUCTION.
2. CLEARING AND GRUBBING SHALL FIRST BE LIMITED TO THAT NECESSARY TO INSTALL PERIMETER CONTROL DEVICES. THE TEMPORARY SEDIMENT BASIN, EARTHEN BERM, AND RISER. THE SEDIMENT BASIN GRADING SHOULD INCORPORATE THE GRADING OF THE PREMANENT FACILITY. DONNOT INSTALL LOW FLOW ORIFS DURING GRADING OPERATIONS. SEE SPECIFICATIONS FOR DEWATERING AND CLEANOUT ELEVATIONS
3. INSTALL ADDITIONAL PERIMETER CONTROLS: SUCH AS SILT FENCE, SUPER SILT FENCE AND DIVERSION DIKES.
4. SEDIMENT BASIN SHALL BE MADE FUNCTIONAL PRIOR TO ANY ONSITE GRADING OR GRUBBING OPERATIONS.
5. CONTRACTOR SHALL COORDINATE INSPECTIONS, AS REQUIRED BY THE THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO SITE CLEARING AND BULK GRADING OPERATIONS.
6. CLEAR AND GRUB THE REMAINDER OF THE SITE TO BEGIN THE EARTHWORK OPERATIONS AS NECESSARY TO ACHIEVE FINAL GRADES.
7. SOIL STOCKPILES SHALL BE LOCATED IN AREAS THAT WILL NOT INTERFERE WITH CONSTRUCTION PHASES AND AT LEAST 15 FEET AWAY FROM AREAS OF CONCENTRATED FLOWS OR PAVEMENT. THE SIDE SLOPES OF THE STOCKPILE WILL BE ROUGHENED BY EQUIPMENT TRACKING, AND WILL NOT EXCEED 2:1 AND SHALL HAVE SILT FENCE INSTALLED ALONG THE PERIMETER TOE.
8. DENUDED AREAS SHALL DRAIN TO AN APPROVED EROSION CONTROL MEASURE AT ALL TIMES DURING CONSTRUCTION.
9. INSTALL STORM SEWER INLETS, PIPES AND CULVERTS ENSURING THAT ALL DRAIN TO AN APPROVED SEDIMENT TRAPPING DEVICE AT ALL TIMES.
10. LIME, FERTILIZE AND APPLY TEMPORARY OR PERMANENT SEEDING TO ALL DENUDED AREAS IMMEDIATELY AFTER ACHIEVING FINAL GRADES.
11. AFTER SITE HAS REACHED SUBGRADE CONDITIONS, INSTALL UTILITIES AND BEGIN ACCESS DRIVE, PARKING LOT AND LOADING AREA CONSTRUCTION.
12. AFTER THE SITE IS FULLY STABILIZED, AND PRIOR TO APPLYING TOPCOAT ASPHALT TO THE PAVED AREAS, OBTAIN APPROVAL FROM THE EROSION CONTROL INSPECTOR TO CONVERT SEDIMENT BASIN TO THE PERMANENT SWM/BMP FACILITY. SEE CONVERSION DETAILS AND SPECIFICATIONS.
13. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN FOURTEEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
14. AFTER SITE IS STABILIZED AND PERMISSION IS OBTAINED FROM THE EROSION CONTROL INSPECTOR, CONVERT THE SEDIMENT BASIN TO THE PERMANENT WET POND FACILITY. REMOVE DEWATERING DEVICE, INSTALL LOW FLOW ORIFI, GRADE-IN AQUATIC AND SAFETY BENCHES AS SPECIFIED.
15. ENCURE THAT FOREBAY AREAS ARE GRADED TO CREATE A MINIMUM OF 1 FOOT OF SUMP ADJACENT TO THE INLET SLOT
16. REMOVE SILT FENCING, INLET PROTECTION AND OTHER REMAINING EROSION CONTROL MEASURES.
17. AN ASBUILT SURVEY INCLUDING CERTIFICATION OF THE PERMANENT WET POND FACILITY IS REQUIRED. ADDITIONALLY, A MAINTENANCE EASEMENT AND AGREEMENT IS NECESSARY TO COMPLETE FINAL CONVERSION OF THE BMP FACILITY.

Downstream Channel Protection Conditions

Criteria: 1 year 24 Hour Storm Event - Runoff Reduction Requirement

Allowable $Q_{Post\ Dev.} = I.F. \times Q_{Pre\text{-}Dev.} \times Rv_{Pre\text{-}Dev.} / Rv_{Developed}$

$I.F. = 0.80$ for Sites > 1 Acre

$Rv_{Pre\text{-}Dev.} = 0.24$ inches

$Rv_{Post\ Dev.} = 0.48$ inches

Allowable $Q_{Post\ Dev.} = 0.80 \times Q_{Pre\text{-}Dev.} \times 0.24 / 0.48$

Allowable $Q_{Post\ Dev.} = 0.40 \times Q_{Pre\text{-}Dev.}$

Allowable $Q_{Post\ Dev.} = 0.40 \times 0.15$ cfs

Allowable $Q_{Post\ Dev.} = 0.06$ cfs

Allowable $Q_{Post\ Dev.} = 0.06$ cfs where $Q_{Post\ Dev.} = 0.06$ cfs

Required Tv = 15,804 c.f of Storage
Forebay 1 = 1' Storage = 900 c.f
Forebay 2 = 1' Storage = 788 c.f
Wet Pond = 15, 800 c.f @ Elevation = 774.30

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REVISIONS
12/18/2014 Comments

DATE: Sept. 19, 2014

SCALE: N/A

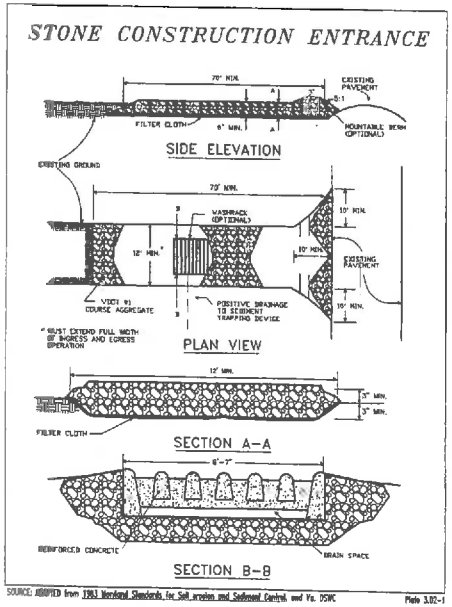
CONTOUR INTERVAL: N/A

EROSION CONTROL NARRATIVE
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER: 5572

(CE) CONSTRUCTION ENTRANCE

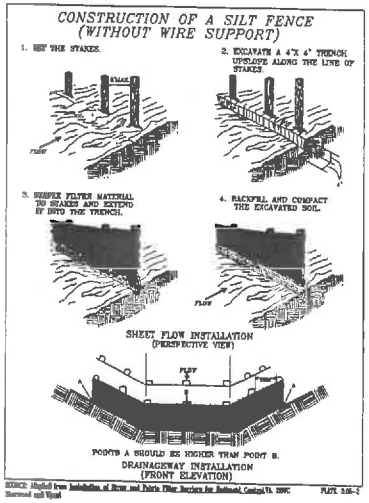
STONE CONSTRUCTION ENTRANCE



SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC — Plate 3.02-1

(SF) SILT FENCE

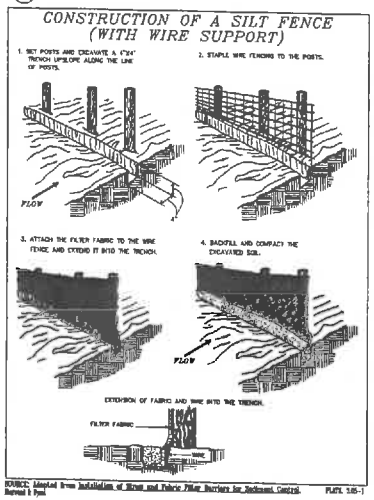
CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, VA. DSWC and Virginia Erosion and Sediment Control Handbook — Plate 3.05-2

(SSF) SUPER SILT FENCE

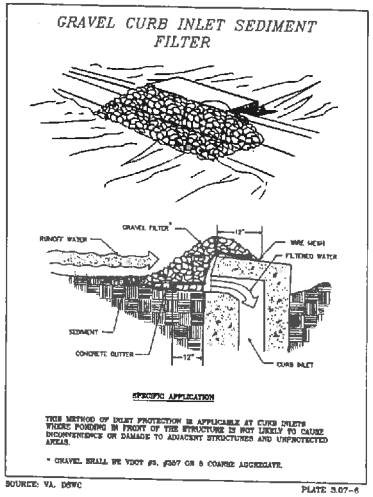
CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Harwood & Pyne — Plate 3.05-1

(IP) INLET PROTECTION

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

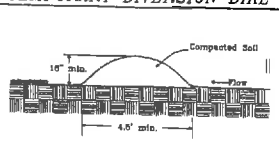
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

SOURCE: VA. DSWC — PLATE 3.07-6

(DD) DIVERSION DIKE

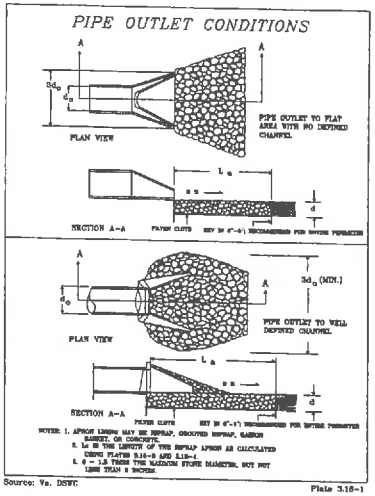
TEMPORARY DIVERSION DIKE



SOURCE: VA. DSWC — PLATE 3.09-1

(OP) OUTLET PROTECTION

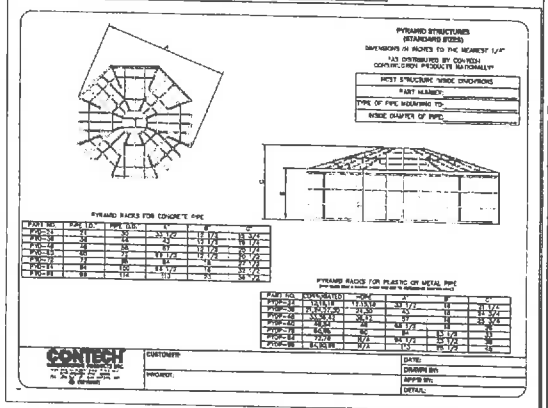
PIPE OUTLET CONDITIONS



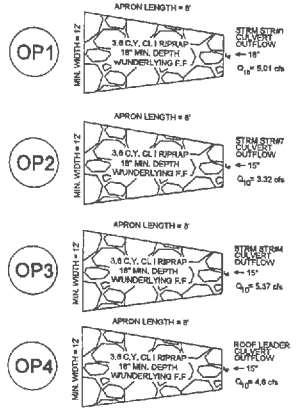
NOTES: 1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, GABION BASKET, OR CONCRETE.
2. Le IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.14-8 AND 3.18-4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 8 INCHES.

Source: Va. DSWC — Plate 3.18-1

ANTI- VORTEX DEVICE

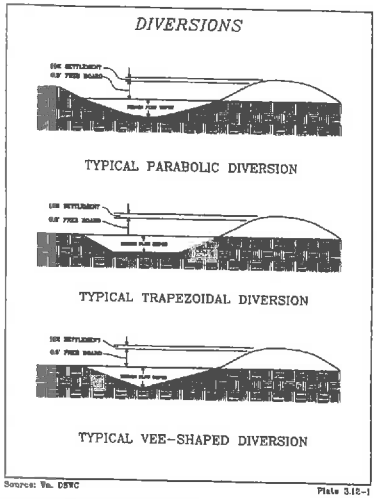


OUTLET PROTECTION SPECIFICATIONS



(DV) DIVERSION

DIVERSIONS



Source: Va. DSWC — Plate 3.18-1

MAINTENANCE LOG:

MAJOR GRADING ACTIVITIES	DATE	STABILIZED CONSTRUCTION AREAS	DATE	MAINTENANCE OF CONTROLS / ADDITIONS	DATE	RAINFALL	WEEKLY INSPECTIONS

COMMONWEALTH OF VIRGINIA
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REVISIONS
12/16/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

EROSION CONTROL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
PROFILES
NELSON COUNTY, VIRGINIA

FILE NUMBER
5572

SHEET
14 of 19

(SB) SEDIMENT BASIN

SEDIMENT BASIN SCHEMATIC ELEVATIONS

BASIN SHALL BE CONSTRUCTED TO PERMANENT SPECIFICATIONS

DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY

DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY
(RISER PASSES 25-YR. EVENT)

SOURCE: VA. DSWC PLATE. 3.14-2

RISER PIPE BASE CONDITIONS FOR EMBANKMENTS LESS THAN 10' HIGH

SOURCE: VA. DSWC PLATE. 3.14-14

(CD) CHECK DAM

ROCK CHECK DAM

SOURCE: VA. DSWC PLATE. 3.20-1

SPACING BETWEEN CHECK DAMS

L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

SOURCE: VA. DSWC PLATE. 3.20-2

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLAR

ELEVATION OF UNASSEMBLED COLLAR

NOTES FOR COLLARS:
1. ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2" DIAMETER RODS WITH STANDARD TANK LUGS FOR CONNECTING COLLARS TO PIPE.

DETAIL OF HELICAL PIPE ANTI-SEEP COLLAR

SIZE AND SPACING OF SLOTTED OPENINGS SHALL BE THE SAME AS SHOWN FOR CM COLLAR. USE RODS AND LUGS TO CLAMP BANDS SECURELY TO PIPE.

NOTE: FOR BANDS AND COLLARS, MODIFICATIONS OF THE DETAILS SHOWN MAY BE USED PROVIDING EQUAL WATERTIGHTNESS IS MAINTAINED AND DETAILED DRAWINGS ARE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO DELIVERY.

NOTE: FOR DETAILS OF FABRICATION DIMENSIONS, MINIMUM GAGES, SLOTTED HOLES, AND NOTES. SEE DETAIL ABOVE.

NOTE: TWO OTHER TYPES OF ANTI-SEEP COLLARS ARE:
1. CORRUGATED METAL, SIMILAR TO UPPER, EXCEPT SHOP WELDED TO A SHORT (ATT.) SECTION OF THE PIPE AND CONNECTED WITH CONNECTING BANDS TO THE PIPE.
2. CONCRETE, 36 INCHES THICK FORMED AROUND THE PIPE WITH #5 REBAR SPACED 12" HORIZONTALLY AND VERTICALLY.

Source: USDA-SCS Plate 3.14-13

(PS) PERMANENT SEEDING MIXTURES FOR THE PIEDMONT AREA

TABLE 25	TOTAL LBS. PER ACRE
MINIMUM CARE LAWN - COMMERCIAL OR RESIDENTIAL	175-200 LBS.
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE	95-100%
- IMPROVED PERENNIAL RYE GRASS	0-5%
- KENTUCKY BLUEGRASS	0-5%
HIGH MAINTENANCE LAWN	200-250 LBS.
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE	100%
GENERAL SLOPE (3:1 OR LESS)	
- KENTUCKY 31 FESCUE	128 LBS.
- RED TOP GRASS	2 LBS.
- SEASONAL NURSE CROP*	20 LBS.
LOW-MAINTENANCE SLOPE (STEEPER THAN 3:1)	
- KENTUCKY 31 FESCUE	108 LBS.
- RED TOP GRASS	2 LBS.
- SEASONAL NURSE CROP*	20 LBS.
- CROWN VETCH**	20 LBS.
	TOTAL 150 LBS.

*USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW

FEBRUARY 16TH THROUGH APRIL 30TH............ANNUAL RYE
MAY 1ST THROUGH AUGUST 15TH..............FOXTAIL MILLET
AUGUST 15TH THROUGH OCTOBER 31ST............ANNUAL RYE
NOVEMBER 1ST THROUGH FEBRUARY 15TH..........ANNUAL RYE

** SUBSTITUTE SERICEA LESPEDEZA FOR CROWNVETCH EAST OF FARMVILLE, VA (MAY THROUGH SEPTEMBER USE HULLED SERICEA, ALL OTHER PERIODS, USE UNHULLED SERICEA.) IF FLATPEA IS USED IN LIEU OF CROWNVETCH, INCREASE RATE TO 30 LBS./ACRE. ALL LEGUME SEED MUST BE PROPERLY INNOCULATED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW MAINTENANCE MIX DURING WARMER SEEDING PERIODS; ADD 10- 20 LBS./ACRE IN MIXES.

(PS) PERMANENT SEEDING FERTILIZATION AND MAINTENANCE

TABLE 24
Maintenance Fertilization for Permanent Seedings
Use Soil Test Recommendation or Rates Shown Below

Seeding Mixture	Formulation	Lbs. per Acre	Lbs. per 1000 sf	Time	Mowing
Tall fescue makes up 70% or more of cover.	10-10-10 or 30-10-10	500 400	11.5 9.2	Yearly, or as needed fall	*Not closer than 3" if occasional mowing is desired.
Crownvetch Service lespedeza Birdsfoot trefoil	0-20-0	400	9.2	Spring the year following establishment and every 4-5 years thereafter.	Do not mow crownvetch
Fairly uniform stand of Tall Tescue & Service lespedeza, or Birdsfoot Trefoil.	5-10-10	500	11.5	Fall the year following establish- ment and every 4-5 years thereafter.	Not required, not closer than 4" if occasional mowing is desired, and then in fall after seed has matured.
Weeping Lovegrass & Service lespedeza fairly uniform plant distribution	5-10-10	500	11.5	Spring the year following establishment and every 3-4 years thereafter.	Not required, not closer than 4" if occasional mowing is desired, and fall after sericea has matured.
Red & chewings fescue, Kentucky bluegrass, hard fescue mixture:	20-10-10 20-10-10	250 100	5.8 2.3	September, 30 days later December, May 20-June-30, if needed.	Mow no closer than 2" for red fescue and Ky bluegrass; and closer than 3" for fescue.

SUGGESTED TEMPORARY SEEDING MIXTURE

FERTILIZER: 10-20-10
1,000 LBS/ACRE
SEPTEMBER-FEBRUARY 15: 50% ANNUAL RYE & 50% WINTER RYE 100 LBS/ACRE FEBRUARY 16-APRIL 30- ANNUAL RYE 100 LBS/ACRE MAY-AUGUST: GERMAN MILLET 50 LBS/ACRE OTHER OPTIONS EXIST, SEE VA EROSION AND SEDIMENT CONTROL HANDBOOK.

SUGGESTED PERMANENT SEEDING MIXTURE

LIME: 2 TONS/ACRE FERTILIZER:
10-20-10 1,000 LBS/ACRE
MARCH-MAY 15: KENTUCKY 31 FESCUE 200 LBS/ACRE, ANNUAL RYE 20 LBS/ACRE MAY 16-AUGUST 15: KENTUCKY 31 FESCUE 200 LBS/ACRE, FOXTAIL MILLET 20 LBS/ACRE AUGUST 16-OCTOBER: KENTUCKY 31 FESCUE 200 LBS/ACRE, ANNUAL RYE 20 LBS/ACRE NOVEMBER-FEBRUARY: KENTUCKY 31 FESCUE 200 LBS/ACRE, WINTER RYE 20 LBS/ACRE

(TS) TEMPORARY SEEDING MIXTURES FOR THE PIEDMONT AREA

TABLE 26
TEMPORARY SEEDINGS BY RATES, DEPTHS, AND DATES

Species (1)	Seeding Rate		Planting depth (1)	Seeding zones (2) and Seeding Date (3)								
	Per acre	Lbs/1000 Sq. ft	(Inches)	7a and 7b			6b			6a and 6b		
				3/1-4/30	5/1-8/14	8/15-11/30	3/1-4/30	5/1-8/14	8/15-11/15	3/15-5/31	6/1-7/31	8/1-10/31
Choose one: Barley Oats Rye (4)	2.5 bu. 3 bu. 2.5 bu.	2.80 2.21 3.22	1-2 1-2 1-2	X X X	- - -	BY 10/15 - X	X X X	- - -	BY 10/15 - X	X X X	- - -	BY 10/1 - X
Barley or Rye Plus Foxtail millet (5)	150 lbs.	3.45	1	X X	X X	10/15 X	X X	X X	10/15 X	X X	X X	10/1 X
Weeping lovegrass (6)	4 lbs.	0.09	1/4-1/2	-	X	-	-	X	-	-	X	-
Annual ryegrass	50 lbs.	1.15	1/4-1/2	X	-	11/1	X	-	11/1	X	-	9/15
Millet (7)	50 lbs.	1.15	1/2	-	X	-	-	X	-	-	X	-

(1) Applicable on slopes of 3:1 or flatter
(2) Refer to figure A - Adapted from USDA, ARS Miscellaneous Publication #1475, January 1990
(3) Between fall and spring seeding dates, use mulch only if ground is frozen and reseed when thawed
(4) May be used as a nurse crop for late fall/early winter permanent seedings. Add 50 lbs/ac. to the permanent seeding mixture
(4) Maryland State Highway Administration Temporary Seed Mix
(5) May be used as a nurse crop for mid-summer permanent seedings. Add 2 lbs/ac to permanent seed mix.
(6) May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs/ac. to the permanent seeding mix.

(TP) TREE PROTECTION

FENCING AND ARMORING

Source: Va. DSCW Plate 3.38-2

(B/M) BLANKET MATTING (EC-2)

TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA

NOTES
APPROXIMATELY 200 STAPLES REQUIRED PER 100 SQ. YDS. OF MATERIAL ROLL. ANCHOR SLOTS, JUNCTION SLOTS & CHECK SLOTS TO BE BURIED 6" TO 12".

STAPLE FORMED FROM NO.11 STEEL WIRE. 8" STAPLE MIN. LENGTH FOR SANDY SOIL. 6" STAPLE MIN. LENGTH FOR OTHER SOIL.

*CHECK SLOTS AT MIN. 50' C-C INTERVALS; NOT REQ.'D WITH ALL 'COMBINATION' BLANKETS

SOURCE: VDOT ROAD AND BRIDGE STANDARDS PLATE: 3.36-2

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0205 - FAX 434-296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

EROSION CONTROL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8672

Afton Mountain Expanded
Prepared by Hewlett-Packard Company
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Type II 24-hr 25-Year Rainfall=6.17"
Printed 12/8/2014

Summary for Pond 8P: Sediment Basin-Prior to Grading

[83] Warning: Early inflow requires earlier time span

Inflow Area = 8.400 ac, Inflow Depth > 6.09" for 25-Year event
Inflow = 73.19 cfs @ 12.03 hrs, Volume= 4.261 af
Outflow = 25.88 cfs @ 12.22 hrs, Volume= 2.575 af, Atten= 65%, Lag= 11.3 min
Primary = 25.88 cfs @ 12.22 hrs, Volume= 2.575 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 779.20' @ 12.22 hrs Surf.Area= 24,578 sf Storage= 100,210 cf
Flood Elev= 780.50' Surf.Area= 24,804 sf Storage= 119,909 cf

Plug-Flow detention time= 150.0 min calculated for 2.574 af (60% of inflow)
Center-of-Mass det. time= 77.2 min (833.1 - 755.9)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	119,909 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	25	0	0
772.00	1,639	1,664	1,664
774.00	6,246	7,887	9,551
776.00	15,214	21,462	31,013
778.00	24,536	39,753	70,766
780.00	24,804	49,143	119,909

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	30.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf
#2	Device 1	776.00'	30.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	780.00'	12.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=25.77 cfs @ 12.22 hrs HW=779.19' (Free Discharge)
1=Culvert (Passes 25.77 cfs of 76.37 cfs potential flow)
2=Orifice/Grate (Orifice Controls 25.77 cfs @ 5.25 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=770.11' (Free Discharge)
3=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

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Type II 24-hr 25-Year Rainfall=6.17"
Printed 12/8/2014

Summary for Pond 18P: Sediment Basin-Graded

[87] Warning: Early inflow requires earlier time span

Inflow Area = 8.400 ac, Inflow Depth > 6.09" for 25-Year event
Inflow = 73.19 cfs @ 12.03 hrs, Volume= 4.261 af
Outflow = 44.30 cfs @ 12.15 hrs, Volume= 3.184 af, Atten= 39%, Lag= 6.9 min
Primary = 44.30 cfs @ 12.15 hrs, Volume= 3.184 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 774.30' Surf.Area= 9,018 sf Storage= 15,778 cf
Peak Elev= 779.89' @ 12.15 hrs Surf.Area= 19,887 sf Storage= 92,531 cf (76,756 cf above start)
Flood Elev= 780.50' Surf.Area= 28,433 sf Storage= 112,440 cf (96,664 cf above start)

Plug-Flow detention time= 131.2 min calculated for 2.793 af (66% of inflow)
Center-of-Mass det. time= 52.4 min (808.2 - 755.8)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	112,440 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	1,275	0	0
772.00	3,429	4,704	4,704
773.80	4,515	7,150	11,854
774.00	8,472	1,299	13,152
776.00	12,110	20,582	33,734
778.00	18,151	28,261	61,995
779.80	20,131	32,854	94,849
780.00	26,199	4,633	99,282
780.50	26,433	13,158	112,440

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	30.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf
#2	Device 1	778.00'	36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	780.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=44.27 cfs @ 12.15 hrs HW=779.89' (Free Discharge)
1=Culvert (Passes 44.27 cfs of 78.18 cfs potential flow)
2=Orifice/Grate (Orifice Controls 44.27 cfs @ 6.26 fps)

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Subcatchment 4S: Onsite Post-Dev. Roof Leader/Gravel Sheetflow

Existing Farm Pond ignored in computations. Results are conservative

Runoff = 8.50 cfs @ 11.98 hrs, Volume= 0.377 af, Depth> 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 4.430	87	Urban industrial, 72% imp, HSG C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	230	0.0200	0.64		Sheet Flow, Gravel PArking Area n= 0.030 P2= 2.50"
0.2	80	0.2000	6.71		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
6.2	310	Total			

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Type II 24-hr 2-Year Rainfall=2.75"
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Summary for Subcatchment 3S: Pre Developed Drainage

Detention Computations are based on Offsite Contributing and Onsite Disturbed Areas. Pre-Dev. Analysis is established from similar contributing Watershed to same point of Analysis.

Runoff = 0.60 cfs @ 12.50 hrs, Volume= 0.120 af, Depth> 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.75"

Area (ac)	CN	Description
* 4.430	60	Developed Portion of Site
* 1.150	60	Developed Portion of Site
* 1.540	60	Developed Portion of Site
7.120	60	Weighted Average

Tc Length Slope Velocity Capacity Description

Events for Subcatchment 3S: Pre Developed Drainage

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	0.15	0.051	0.09
2-Year	0.60	0.120	0.20
5-Year	4.18	0.487	0.84
10-Year	8.62	0.828	1.58
25-Year	18.10	1.853	3.12
50-Year	27.23	2.780	4.68
100-Year	48.59	4.183	8.82

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Subcatchment 5S: Offsite Contributing Area

Runoff = 1.33 cfs @ 12.21 hrs, Volume= 0.110 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 1.090	80	Paved roads w/open ditches, 50% imp, HSG C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.1	250	0.1000	0.15		Sheet Flow, Shoulder & R/W Grass: Bermuda n= 0.410 P2= 2.50"

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Type II 24-hr 100-Year Rainfall=13.14"
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Events for Subcatchment 5S: Offsite Contributing Area

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	1.33	0.110	1.21
2-Year	1.77	0.146	1.62
5-Year	3.26	0.279	3.07
10-Year	4.19	0.380	4.30
25-Year	6.87	0.591	6.50
50-Year	8.53	0.764	8.41
100-Year	11.67	1.092	11.84

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Pond 14P: Forebay #2

Inflow Area = 1.150 ac, Inflow Depth > 1.37" for 1-Year event
Inflow = 2.36 cfs @ 12.04 hrs, Volume= 0.131 af
Outflow = 2.34 cfs @ 12.05 hrs, Volume= 0.127 af, Atten= 1%, Lag= 0.9 min
Primary = 2.34 cfs @ 12.05 hrs, Volume= 0.127 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 788.82' @ 12.05 hrs Surf.Area= 493 sf Storage= 334 cf

Plug-Flow detention time= 20.3 min calculated for 0.127 af (97% of inflow)
Center-of-Mass det. time= 9.0 min (784.1 - 775.1)

Volume	Invert	Avail.Storage	Storage Description
#1	787.50'	1,360 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
787.50	10	0	0
788.00	150	40	40
790.00	898	1,048	1,088
790.25	1,277	272	1,360

Device	Routing	Invert	Outlet Devices
#1	Primary	788.50'	2.5' long x 1.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=2.33 cfs @ 12.05 hrs HW=788.92' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 2.33 cfs @ 2.32 fps)

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Subcatchment 13S: Onsite Contributing Area Str#6

Runoff = 2.36 cfs @ 12.04 hrs, Volume= 0.131 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 1.150	92	Urban commercial, 85% imp, HSG B/C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					Direct Entry,

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Subcatchment 10S: Onsite Contributing Area Str#9

Runoff = 1.35 cfs @ 12.05 hrs, Volume= 0.073 af, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 1.540	78	Urban industrial, 60% imp, HSG A

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	120	0.0500	1.42		Sheet Flow, Rooftop n= 0.015 P2= 2.50"
10.0	900	0.0100	1.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
11.4	1,020	Total			

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Summary for Pond 11P: Forebay #1

Inflow Area = 1.540 ac, Inflow Depth > 0.57" for 1-Year event
Inflow = 1.35 cfs @ 12.05 hrs, Volume= 0.073 af
Outflow = 1.30 cfs @ 12.07 hrs, Volume= 0.068 af, Atten= 4%, Lag= 1.6 min
Primary = 1.30 cfs @ 12.07 hrs, Volume= 0.068 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 784.78' @ 12.07 hrs Surf.Area= 649 sf Storage= 353 cf

Plug-Flow detention time= 31.4 min calculated for 0.068 af (94% of inflow)
Center-of-Mass det. time= 9.5 min (828.2 - 818.7)

Volume	Invert	Avail.Storage	Storage Description
#1	784.00'	6,579 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
784.00	250	0	0
785.00	758	504	504
786.00	2,982	1,870	2,374
787.00	5,428	4,205	6,579

Device	Routing	Invert	Outlet Devices
#1	Primary	784.50'	2.5' long x 1.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=1.28 cfs @ 12.07 hrs HW=784.78' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Weir Controls 1.28 cfs @ 1.84 fps)

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Type II 24-hr 1-Year Rainfall=2.26"
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Stage-Discharge for Pond 2P: Proposed Pond

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
770.00	0.00	0.00	0.00
770.15	0.00	0.00	0.00
770.30	0.00	0.00	0.00
770.45	0.00	0.00	0.00
770.60	0.00	0.00	0.00
770.75	0.00	0.00	0.00
770.90	0.00	0.00	0.00
771.05	0.00	0.00	0.00
771.20	0.00	0.00	0.00
771.35	0.00	0.00	0.00
771.50	0.00	0.00	0.00
771.65	0.00	0.00	0.00
771.80	0.00	0.00	0.00
771.95	0.00	0.00	0.00
772.10	0.00	0.00	0.00
772.25	0.00	0.00	0.00
772.40	0.00	0.00	0.00
772.55	0.00	0.00	0.00
772.70	0.00	0.00	0.00
772.85	0.00	0.00	0.00
773.00	0.00	0.00	0.00
773.15	0.00	0.00	0.00
773.30	0.00	0.00	0.00
773.45	0.00	0.00	0.00
773.60	0.00	0.00	0.00
773.75	0.00	0.00	0.00
773.90	0.00	0.00	0.00
774.05	0.00	0.00	0.00
774.20	0.00	0.00	0.00
774.35	0.01	0.01	0.00
774.50	0.02	0.02	0.00
774.65	0.02	0.02	0.00
774.80	0.03	0.03	0.00
774.95	0.03	0.03	0.00
775.10	0.03	0.03	0.00
775.25	0.04	0.04	0.00
775.40	0.04	0.04	0.00
775.55	0.04	0.04	0.00
775.70	0.05	0.05	0.00
775.85	0.05	0.05	0.00
776.00	0.05	0.05	0.00
776.15	0.06	0.06	0.00
776.30	0.06	0.06	0.00
776.45	0.06	0.06	0.00
776.60	0.06	0.06	0.00
776.75	0.06	0.06	0.00
776.90	0.37	0.37	0.00
777.05	1.20	1.20	0.00
777.20	2.36	2.36	0.00
777.35	3.58	3.58	0.00
777.50	4.41	4.41	0.00
777.65	5.13	5.13	0.00
777.80	5.78	5.78	0.00
777.95	6.33	6.33	0.00
778.10	7.83	7.83	0.00
778.25	11.19	11.19	0.00
778.40	15.59	15.59	0.00
778.55	20.79	20.79	0.00
778.70	28.66	28.66	0.00
778.85	33.17	33.17	0.00
779.00	40.21	40.21	0.00
779.15	46.26	46.26	0.00
779.30	48.90	48.90	0.00
779.45	51.42	51.42	0.00
779.60	53.81	53.81	0.00
779.75	56.09	56.09	0.00
779.90	58.29	58.29	0.00
780.05	61.00	60.40	0.60
780.20	67.24	62.45	4.79
780.35	75.58	64.42	11.16
780.50	85.43	66.34	19.09

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 031872
PROFESSIONAL ENGINEER

**** Permanent Wet Pond Specifications

Afton Mountain Expanded
Prepared by Hewlett-Packard Company
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Type II 24-hr 1-Year Rainfall=2.26"
Printed 12/8/2014

Summary for Pond 2P: Proposed Pond

Inflow Area = 7.120 ac, Inflow Depth > 0.86" for 1-Year event
Inflow = 11.29 cfs @ 11.99 hrs, Volume= 0.573 af
Outflow = 0.06 cfs @ 20.00 hrs, Volume= 0.037 af, Atten= 99%, Lag= 480.5 min
Primary = 0.06 cfs @ 20.00 hrs, Volume= 0.037 af
Secondary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 774.30' Surf.Area= 9,018 sf Storage= 15,778 cf
Peak Elev= 776.43' @ 20.00 hrs Surf.Area= 12,973 sf Storage= 39,092 cf (23,316 cf above start)
Flood Elev= 780.50' Surf.Area= 28,433 sf Storage= 112,440 cf (96,664 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 154.5 min (957.0 - 792.5)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	112,440 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	1,275	0	0
772.00	3,429	4,704	4,704
773.80	4,515	7,150	11,854
774.00	8,472	1,299	13,152
776.00	12,110	20,582	33,734
778.00	18,151	28,261	61,995
779.80	20,131	32,854	94,849
780.00	26,199	4,633	99,282
780.50	26,433	13,158	112,440

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	30.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf
#2	Device 1	774.30'	8.5" Vert. Orifice/Grate X 5.00 C= 0.600
#3	Device 1	776.75'	6.0" Vert. Orifice/Grate X 4.00 C= 0.600
#4	Device 1	778.00'	36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	780.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.05 cfs @ 20.00 hrs HW=776.43' (Free Discharge)
1=Culvert (Passes 0.05 cfs of 63.49 cfs potential flow)
2=Orifice/Grate (Orifice Controls 0.05 cfs @ 6.99 fps)
3=Orifice/Grate (Controls 0.00 cfs)
4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=774.30' (Free Discharge)
5=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Afton Mountain Expanded
Prepared by Hewlett-Packard Company
HydroCAD® 10.00 s/n 08126 © 2013 HydroCAD Software Solutions LLC

Type II 24-hr 100-Year Rainfall=13.14"
Printed 12/8/2014

Events for Pond 2P: Proposed Pond

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-Year	11.28	0.08	0.08	0.00	776.43	39,094
2-Year	15.80	0.31	0.31	0.00	776.87	45,091
5-Year	38.44	4.75	4.75	0.00	777.57	56,221
10-Year	42.73	14.27	14.27	0.00	778.38	67,688
25-Year	64.80	43.80	43.80	0.00	779.07	80,818
50-Year	83.34	53.80	53.80	0.00	779.80	90,858
100-Year	106.39	69.87	62.66	5.41	780.22	104,963

Site Data Summary

[illegible]

Drainage Area A Summary

[illegible]

BMP Selections

[illegible]

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0205 - FAX 434-296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/10/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

SWM NOTES AND DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
16 of 16

PLANT LIST-TREES

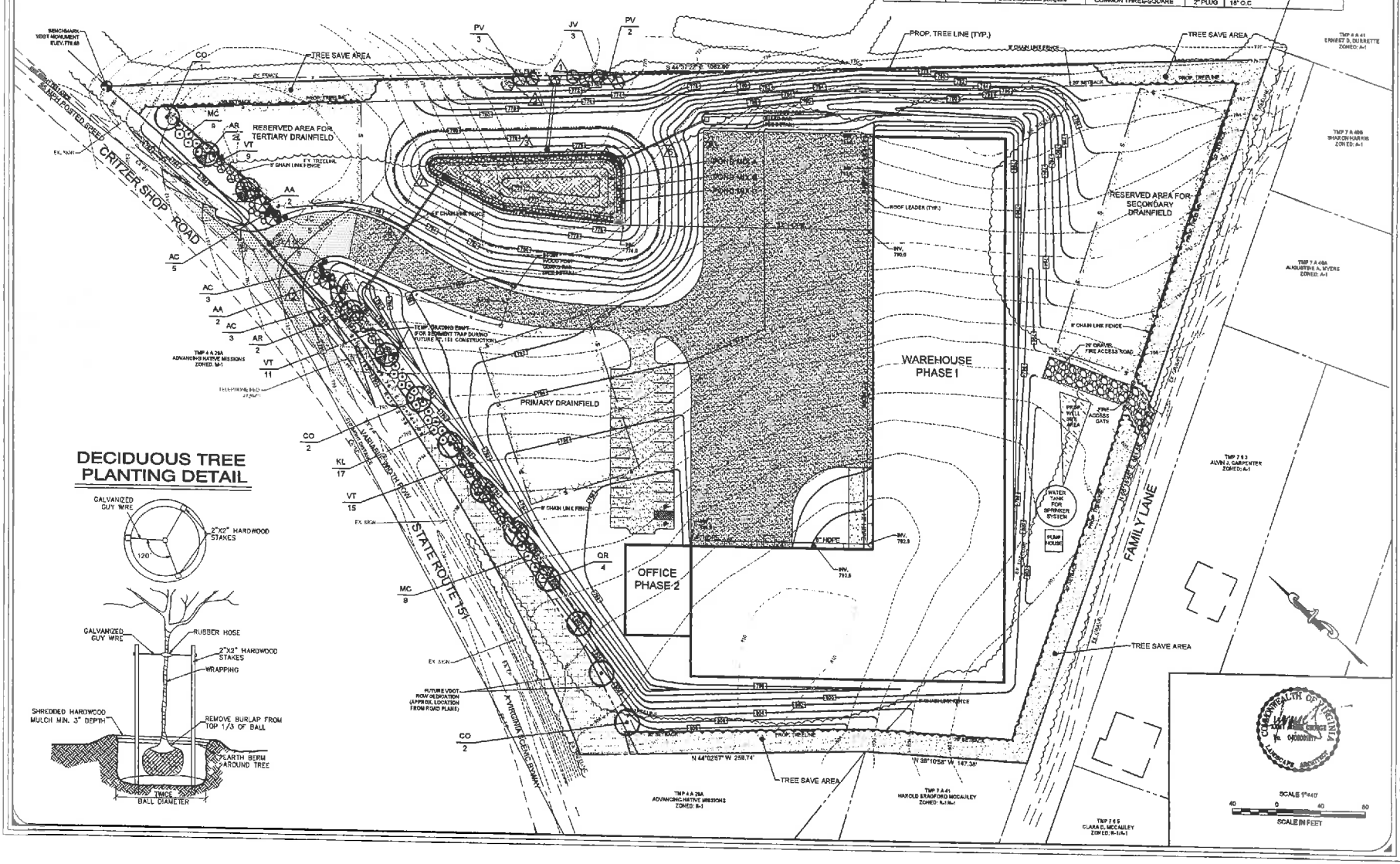
QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
4	AA	Amelanchier arborea	DOWNY SERVICEBERRY	1.5" CAL.	B & B' / MULTI-STEM
4	AR	Acer rubrum "October Glory"	OCTOBER GLORY RED MAPLE	1.5" CAL.	B & B'
5	CO	Carya ovata	SHAGBARK HICKORY	1.5" CAL.	B & B'
4	QR	Quercus rubra	NORTHERN RED OAK	1.5" CAL.	B & B'
3	JV	Juniperus virginiana	EASTERN RED CEDAR	4-5' HT.	B & B'
4	PV	Pinus virginiana	VIRGINIA PINE	4-5' HT.	B & B'

PLANT LIST-SHRUBS

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
11	AC	Aronia arbutifolia	RED CHOKEBERRY	18"-24"	CONT.
10	JC	Juniperus chinensis "Sea Green"	SEA GREEN JUNIPER	18"-24"	CONT.
17	KL	Kalmia latifolia	MOUNTAIN LAUREL	18"-24"	CONT.
18	MC	Morella cerifera	WAX MYRTLE	18"-24"	CONT.
35	VT	Viburnum = rhytidophylloides 'Alleghany'	ALLEGHANY LEATHERLEAF VIBURNUM	18"-24"	CONT.

PLANT LIST-WET POND

QNTY.	KEY	WATER DEPTH	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
1	POND MIX A	+1' BELOW ELEV. 773.3	Lemna minor	DUCKWEED	1 CUP	LIVE PLANTS
18			Valliseria americana	WILD CELERY	2" PLUG	24" O.C/ PLACE ABOVE ELEV. 772.0
5	POND MIX B	6" - 1' (ELEV. 773.3 TO 773.6)	Nuphar lutsua	SPATTERDOCK	1 GAL.	CONT./ RANDOM SPACING
230			Peltandra virginica	ARROW ARUM	2" PLUG	18" O.C
250			Pontederia cordata	PICKERELWEED	2" PLUG	18" O.C
174			Schoenoplectus pungens	COMMON THREE-SQUARE	2" PLUG	18" O.C
25	POND MIX C	0" - 6" (ELEV. 773.6 TO 774.3)	Hibiscus moscheutos	MARSHMALLOW HIBISCUS	1 GAL.	CONT./ 4' O.C./ RANDOM GROUPING
250			Leersia oryzoides	RICE CUTGRASS	2" PLUG	18" O.C
200			Pontederia cordata	PICKERELWEED	2" PLUG	18" O.C
252			Schoenoplectus pungens	COMMON THREE-SQUARE	2" PLUG	18" O.C



DECIDUOUS TREE PLANTING DETAIL

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
614 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE: 434-977-0203 - FAX 434-296-8200 - EMAIL: INFO@ROUDABUSH.COM

REVISIONS
12/18/2014
Comments

DATE
Sept. 18, 2014

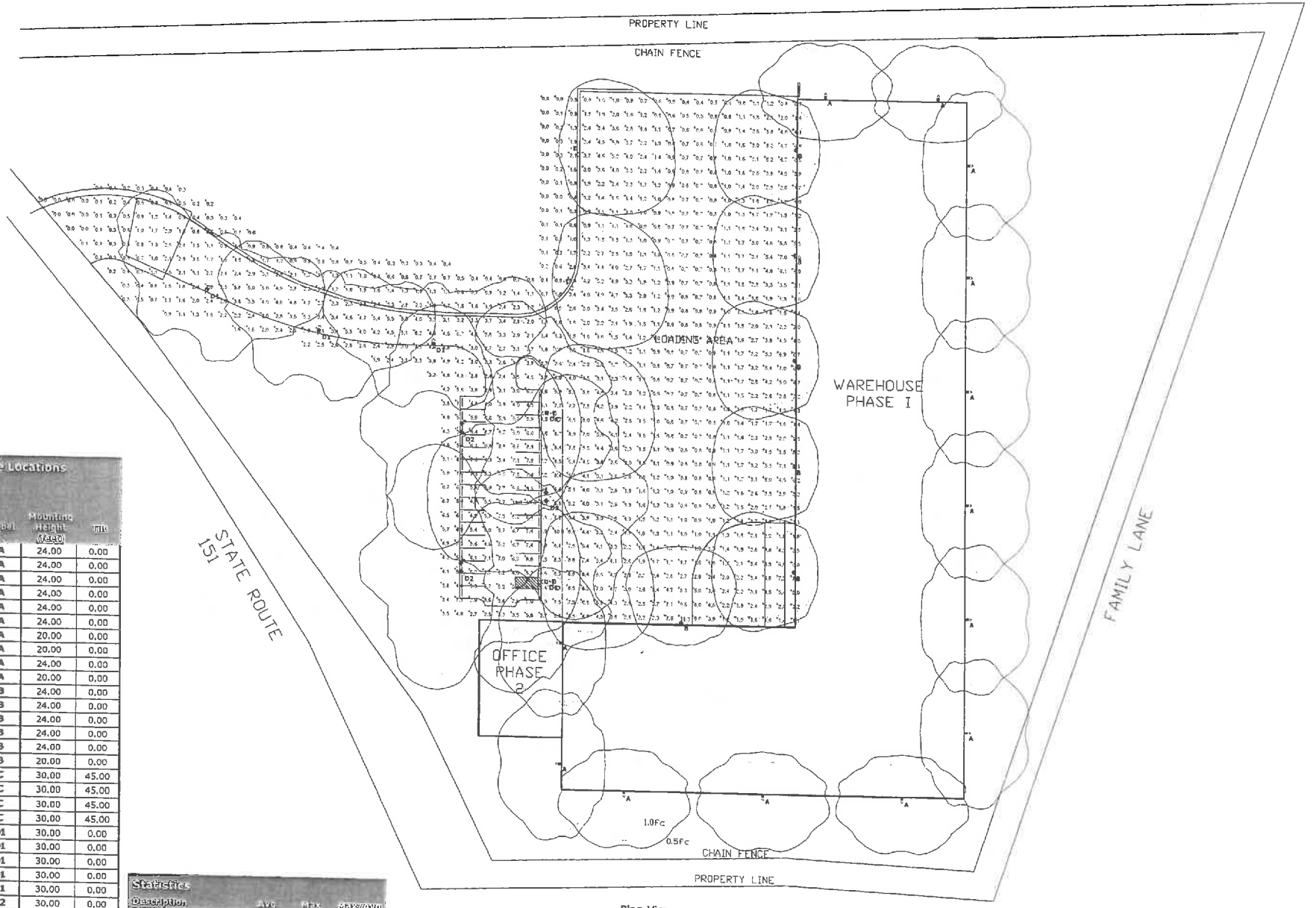
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

LANDSCAPING PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
6572

SHEET
17 of 19



Plan View
Scale - 1" = 30'

Luminaire Locations

No.	Label	Mounting Height (feet)	Tilt
1	A	24.00	0.00
2	A	24.00	0.00
3	A	24.00	0.00
4	A	24.00	0.00
5	A	24.00	0.00
6	A	24.00	0.00
7	A	20.00	0.00
8	A	20.00	0.00
9	A	24.00	0.00
10	A	20.00	0.00
11	B	24.00	0.00
12	B	24.00	0.00
13	B	24.00	0.00
14	B	24.00	0.00
15	B	24.00	0.00
16	B	20.00	0.00
17	C	30.00	45.00
18	C	30.00	45.00
19	C	30.00	45.00
20	C	30.00	45.00
21	D1	30.00	0.00
22	D1	30.00	0.00
23	D1	30.00	0.00
24	D1	30.00	0.00
25	D1	30.00	0.00
26	D2	30.00	0.00
27	D2	30.00	0.00
28	D2	30.00	0.00

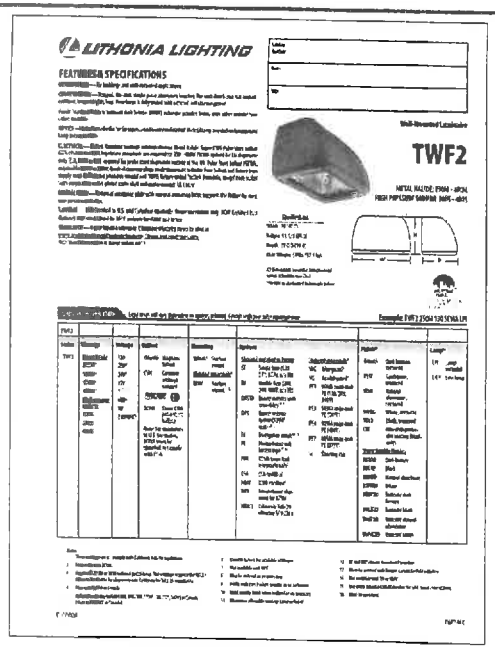
Statistics

Description	Avg	Max	Max/Avg
Loading Area	2.4 fc	11.3 fc	4.71
Parking Lot	6.4 fc	11.6 fc	1.81

MEI engineering, inc.
mechanical electrical industrial consultants
Harrisonburg, VA (540) 432-5272

ZENITH QUEST
AFTON MOUNTAIN
Nelson County, Virginia
SITE PHOTOMETRICS

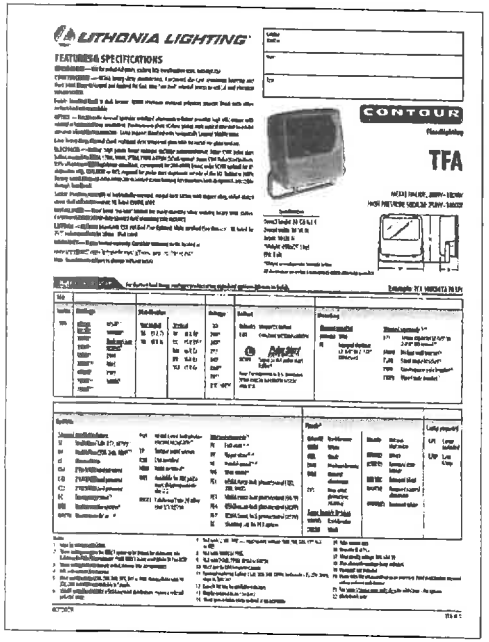
Designer
Wesley Siever, P.E.
Date
12/31/2014
Scale
As Noted
MEI Job No.
14158


LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

TWF2

Wall-Mounted Luminaire

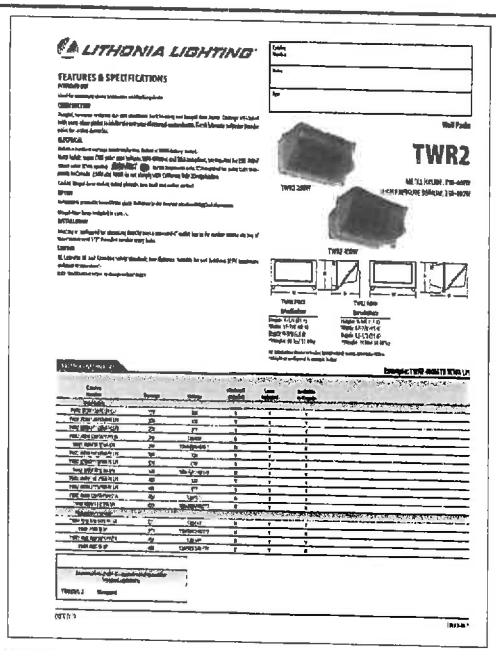

LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

CONTOUR

Floodlighting

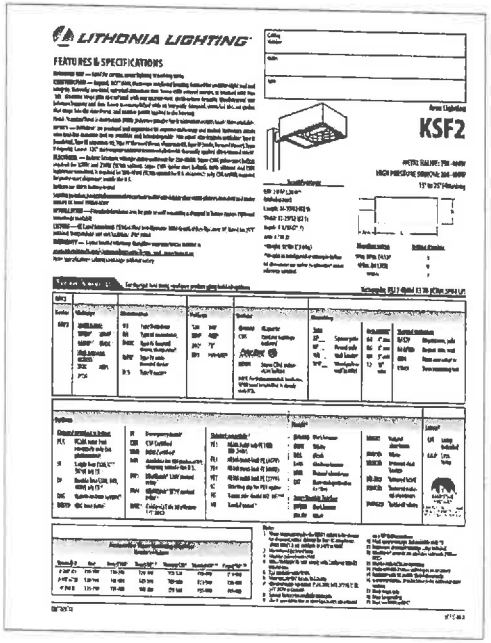
TFA


LITHONIA LIGHTING

FEATURES & SPECIFICATIONS

TWR2

Wall Packs


LITHONIA LIGHTING

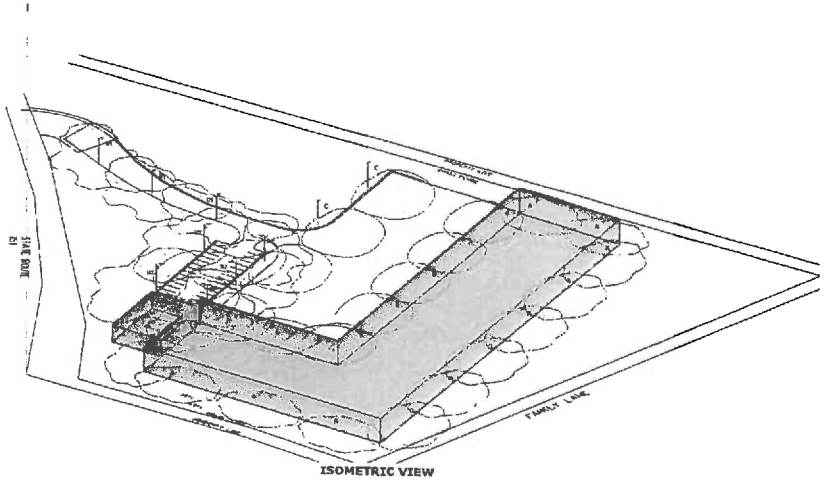
FEATURES & SPECIFICATIONS

Area Lighting

KSF2

Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	Description	Wattage
	A	13	Lithonia Lighting	TWF2 400M (PULSE)	ONE 400-WATT CLEAR BT28 METAL HALIDE, VERTICAL BASE UP POS.	1	36000	0.75	CONTOUR SERIES BUILDING MOUNTED WALLPACK WITH VERTICAL LAMP AND GLASS LENS	458
	B	6	Lithonia Lighting	TWR2 400M (PULSE)	MS400/I PSL SY	1	31000	0.75	DIE-CAST GENERAL PURPOSE WALLPACK WITH GLASS REFRACTOR	435.1
	C	4	Lithonia Lighting	TFA 400M TA2 (PULSE)	ONE 400-WATT CLEAR ED-37 PULSE START METAL HALIDE, VERTICAL BASE-DOWN POSITION	1	42000	0.75	CONTOUR SERIES LARGE SPECIFICATION FLOODLIGHT WITH TA2 (7X6) DISTRIBUTION	455
	D1	5	Lithonia Lighting	KSF2 400M R3 (PROBE)	ONE 400-WATT CLEAR ED-28 METAL HALIDE, HORIZONTAL POSITION.	1	32000	0.75	Specification Area Luminaire, 400W Metal Halide, R3 Reflector, Full Cutoff MEETS THE 'NIGHTTIME FRIENDLY' CRITERIA	462
	D2	3	Lithonia Lighting	KSF2 400M R3 (PROBE)	ONE 400-WATT CLEAR ED-28 METAL HALIDE, HORIZONTAL POSITION.	1	32000	0.75	Specification Area Luminaire, 400W Metal Halide, R3 Reflector, Full Cutoff MEETS THE 'NIGHTTIME FRIENDLY' CRITERIA	924



MET engineering, inc.
mechanical electrical industrial
consultants
1717 Arlington Blvd. (540) 439-3272
Charlottesville, VA 22903 fax (540) 977-3922

ZENITH QUEST
AFTON MOUNTAIN
Nelson County, Virginia

SITE PHOTOMETRICS

Designer
Wesley Sawyer, P.E.
Date
12/11/2014
Scale
As Noted
MET Job No.
14158

2 of 2

To: Ammy George, Roudabush, Gale & Assoc., Inc.

From: Tim Padalino | Director of Planning & Zoning

Date: January 15, 2014

Subject: (Revised) Site Plan Review Comments

Ammy,

Thank you for attending the Site Plan Review Committee meeting on Wednesday, January 14th regarding the review of the (revised) site plan drawings for Zenith Quest Afton Mountain. Thank you for also providing your responses to my original review comments, addressing how the revisions (as shown in the revised submittal, dated 12/19) incorporate the original review comments.

I have used your responses (starting on page 2, below, in **bold**); and I have also added my own review comments (in **blue**) to convey the most recent review comments (in connection with the Site Plan Review Committee meeting on January 14th as well as subsequent follow-up questions and comments from members of the Planning Commission).

In addition to providing **my most recent review comments** to **your written responses** (starting on page 2), the following issues or questions also remain, and should be addressed at the January 28th Planning Commission meeting:

- *Color of building and color of roof material*:
  - suggestion for the building material to be tan or gray in a "flat" finish;
  - concern about the approximately 2-acre roof being "silver" (as described at Site Plan Review Committee meeting), and the roof's visibility and impact on viewsheds from Afton properties and from Blue Ridge Parkway "Afton Overlook" and "Rockfish Valley Overlook"; suggestion to use tan (or other natural color) in "flat" / "matte" finish to minimize glare and reduce visibility

- *Compliance with fire access and emergency access requirements:*
  - request to provide documentation that ZQI has legal right to access / use Family Lane (private road) for satisfying secondary emergency access requirements
  - request to provide documentation of compliance with Fire Code requirements and Building Code requirements regarding the design and layout of the 20' gravel fire access road

- *Signage:*

- Location, size, and detail of all signage are not supplied as required in Major Site Plan Checklist Item T per (13-4-T). These required details must be addressed as part of the site plan review.

  The sign has been added to Sheet 3 to show the location of where it will be installed. At the end of this letter, I have included an example of the sign that Zenith Quest is planning on installing. It is 8' wide and 3' tall doubled sided sign supported on two posts.

  The proposed sign would be permissible relative to Zoning Ordinance regulations for signs, as contained in Article 4 and Article 12, Section 11. Thank you for including an image of the proposed sign (attached to the final page of this document).

- *Lighting:*

- Location and type of lighting equipment, plus photometric plan, are not supplied as required in Major Site Plan Checklist Item T per (13-4-V).
- Note on Cover Sheet states that the project will use wall-mounted fixtures and that the lighting will be shown on the building permit plan for approval; however, these required details must be addressed as part of the site plan review, not during the building permit application.
- See (12-7-8K) "Lighting"…"Outdoor lighting for parking and loading spaces shall be arranged to deflect glare away from adjoining properties and public streets. Sources of light on a lot shall be hooded or of directional type capable of shielding the light source from shining on adjoining property or public right-of-way."

  The location of the lighting has been shown on Sheet 18. The type of lighting has been specified on Sheet 19. The lighting has been designed to avoid light spill over onto adjacent properties; Sheet 18, a photometric plan has been added to the plan set to demonstrate that the plan meets the intent of 12-7-8K.

  The note about site lighting has been removed from the cover sheet.

  Sheet 18 contains a Photometric Lighting Plan and sheet 19 provides associated lighting details. Thank you for submitting this important information.

  Please note that on Sheet 19, some of the details contained in the table for light fixture "D2" may need to be corrected to reflect that the "KSF2 400M R3" (?) pole-mounted fixture actually has two bulbs and two fixtures. (The "wattage" calculation seems to be correct, but the "number lamps" column appears to be incorrect.) Please also specify the color / finish of the light fixtures and poles.

Landscaping & Screening:

- Additional screening is needed along Route 151 (designated Virginia Scenic Byway), per the following Zoning Ordinance provisions:
    - (12-7-8G): "minimum of 50% of the road frontage shall be landscaped".
    - (9-2-2): "landscaping may be required within any established or required front yard setback area".

A mix of predominately evergreen and deciduous shrubs have been added along the fence line facing Route 151. Approximately 75% of the total length of the road frontage has been landscaped.

The additional landscaping materials along Route 151 are a significant positive improvement. The proposed landscaping plan contains much more plant material, and is comprised of a very interesting and attractive plant palette.

However, please consider that the majority of the proposed canopy trees along Route 151 are deciduous, and will not provide effective screening for a large portion of the year. Therefore, please consider revising this portion of the landscape plan to include additional evergreen trees, staggered behind the proposed deciduous trees and shrubs. That revision would provide greater depth of vegetation materials, with year-round foliage, thereby providing effective screening. (Please reference the attached "comment sketch" for more information.)

- Screening is required adjacent to parking lot and loading area(s) per the following Zoning Ordinance provisions:
    - (13-4-CC): "parking areas shall not be located between the adjacent public right-of-way and principal structure on the site unless topographic features or vegetation provide effective screening".
    - (12-7-8N): "landscaping shall be designed and used to screen adjoining property from storage and loading operation".

The average full-grown height of the shrubs along the Route 151 is approximately 8-10', which will provide adequate screening for the parking and loading areas. Additionally, the trees and shrubs have been located to maximize the screen of the loading and parking area. A portion of the site is located approximately eight (8) to ten (10) above Route 151; for these areas, the additional screening with landscaping was not needed.

The existing tree line for the Mount Armor property to the east of the project site has been added to the Landscape Plan. Evergreen trees have been added to the areas where the existing vegetation on the Mount Armor property is less than 10' in depth to screen the loading area.

As noted above, the additional landscaping materials along Route 151 (and along the property line with the Mount Armour property) are a significant positive improvement. However, there are no landscaping materials to provide screening adjacent to the loading area or the parking area. Please consider revising the landscape plan to include landscaping along the parking lot and loading area. (Please reference the attached "comment sketch" for more information.)

Also, please consider revising the landscape plan to provide for landscaping along portions of the very long façade of the warehouse facing the loading area. With a length of approximately 375', this section of the warehouse must have some landscaping to provide better screening from Route 151 and from adjacent properties, and to reduce the visual impacts of the very large (long) industrial building. Such landscaping could be established in relatively thin "landscape areas" along the building, located in between the loading docks where they would not interfere with operations. A mixture of deciduous canopy trees and evergreen trees (in each landscape area) would provide the most effective screening. (Please reference the attached "comment sketch" for more information.)

- Other general screening considerations:
  - (9-2-1): "permitted uses may be required to be conducted … within an area enclosed on all sides by a solid board fence or an evergreen hedge between six (6) and ten (10) feet in height".
  - (9-2-3): "sufficient area shall be provided to adequately screen permitted uses from adjacent business and residential district".

The dumpster will be located within the loading area. The landscape screening along Route 151 provides the same type of screening for the dumpster as it does the parking and loading areas.

Thank you for including the specifications / details for the "dumpster fence enclosure" on Sheet 7.

- "Tree Save" area correlates with the minimum setback requirements (20') as required by (9-4) … are there opportunities to increase this tree save area to better "buffer" adjacent residential areas?

The Tree Save has been maximized for the proposed improvements on the site. The area outside of the Tree Save area along the southern property contains a secondary drain field, the well and secondary fire access road. The area to the east of the site entrance onto Route 151 contains a tertiary drain field. These areas have been included on the Landscape Plan to illustrate the extents of the improvements proposed on the site and the limits of the Tree Save areas.

- *Parking Spaces:*

- Office use = 33 spaces required per (12-7-6e)
- Industrial use = 1 space required for each employee at maximum shift = (?) per (12-7-6c)
- 32 spaces provided (2 handicap spaces)
- If any of the industrial/warehouse employees (at maximum shift) are distinct and separate from the office workers, additional spaces will be required.

The office will not have personnel separate from the warehouse operations. Therefore, under the parking requirements for industrial use (one space per employee at maximum shift), we have provided 32 parking spaces to serve the 30 employees that will work in the warehouse. Thank you for this clarification.

- 4 "off-street loading spaces" are required per (12-7-7)

There will be eight dock doors and one drive-up loading door opening onto the loading area. The location of the dock doors and the drive up loading door has been added to Sheet 3. Thank you for this clarification.

- *Vehicular Traffic Volume & Patterns:*

- At the previous Site Plan Review Committee meeting, the applicant team stated that there will be six (6) vehicle trips per month associated with the warehouse operation. The vehicular patterns associated with the office use is currently unknown.
- Information providing a summary of anticipated traffic patterns is requested per (13-7-B-2); this may need to be a Traffic Impact Analysis report submitted to Nelson County and VDOT.

The average daily trips for this project is 201 vehicles which includes all vehicle types, i.e. cars and trucks. This is based upon the Trip Generation calculation from the ITE (Institute of Transportation Engineers) Code 110 (General Light Industrial) and Code 710 (General Office). The anticipated 6-truck trips per month, which was given by the owner, is based upon their experience and plans for the proposed building.

In the resubmittal package, I have included the calculations for a turn lane analysis along with the VDOT approval letter for the analysis. The existing and anticipated traffic patterns were included as part of that turn lane analysis.

Thank you. I have received the letter from Mr. Jeff Kessler of VDOT (dated June 9, 2014) stating that the "traffic generation, distribution and turn lane analysis" report (dated May 22, 2014) "is acceptable" and that "neither a right turn lane or a left turn lane would be warranted for a commercial entrance on Route 151."

Please note that Mr. Kessler indicated he has additional review comments for this project, which he stated will be provided to the County and to the applicant team sometime during the week of January 19th.

Required Site Improvements & Bonding Requirements:

- (13-6-1-L): required improvements must be secured through a bond furnished by the developer in an amount calculated and approved by the Planning & Zoning Director in accordance with established specifications and construction schedules.
- (13-6-1-M): plan and specifications for all required improvements to be installed shall be prepared by a licensed engineer.

Acknowledged. We will provide the County with the cost estimate of the improvements once they have been generated by the General Contractor.

Thank you. Please recall that the establishment of the bond is a requirement that must be completed prior to Site Plan approval (per Zoning Ordinance Article 13, Section 6-1-L).

Other Comments:

- Checklist Item E: Remove "NCSA" from signature panel.

NCSA removed from signature panel. Thank you.

- Checklist Item M: Label Route 151/Critzer Shop Road as a designated Virginia Scenic Byway ("feature of particular scenic significance).

Route 151/Critzer Shop Road has been labeled as a Virginia Scenic Byway on the plans. In addition, a note has been added to the Cover Sheet. Thank you.

- Checklist Item N: Provide preliminary plans and elevations for the building.

The preliminary plans and elevations for the building are included in this resubmittal package. Thank you for including that important information, and thank you for also providing those drawings electronically after the meeting.

- Checklist Item EE: Is warehouse project still planned for phased construction? If so, please specify the phasing limits and proposed timing of that phased development.

This project is planned for two phases of construction. The first phase will include the construction of all site improvements, utilities and the warehouse portion of the proposed building. The second phase of construction will include the office portion of the proposed building. At this time, the timing for second phase, the office, is not known. Thank you for specifying that planned phasing on the Cover Sheet.

- Trips into the site is unclear, provide traffic/trip information

In the resubmittal package, I have included the calculations for a turn lane analysis along with the VDOT approval letter for the analysis. The existing and anticipated traffic patterns were included as part of that turn lane analysis.

Thank you. I have received the letter from Mr. Jeff Kessler of VDOT (dated June 9, 2014) stating that the "traffic generation, distribution and turn lane analysis" report (dated May 22, 2014) "is acceptable" and that "neither a right turn lane or a left turn lane would be warranted for a commercial entrance on Route 151."

Please note that Mr. Kessler indicated he has additional review comments for this project, which he stated will be provided to the County and to the applicant team sometime during the week of January 19th.

Example of Sign

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4219 CAMPBELL AVENUE
LYNCHBURG, VIRGINIA 24501
VDOT.Virginia.gov

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

January 15, 2015

VIA EMAIL: JANUARY 15, 2015

Mr. Timothy M. Padalino
Director | Dept. of Planning & Zoning
County of Nelson, Virginia
P. O. Box 558
Lovingston, Virginia 22949

RE: Major Site Plan #2014-005: Zenith Quest Site Plan – Revision Dated September 19, 2014
Route 151, Avon Area, Nelson County

Dear Mr. Padalino; ~~Padalino~~ Tim

We have completed our review of the revised site plans for the Zenith Quest project dated September 19, 2014 presented for this month's Nelson County Site Plan Review Committee meeting. The revised plans took into consideration the VDOT's suggestions offered during the preliminary planning stages, and are now detailed to the point where we could offer specific comments. As we discussed by telephone, we do not foresee any major issues and the majority of our following remarks pertain to requests for clarification in the details and for additional information in line with VDOT's previous comments. We have organized our comments by plan sheet.

1. **Plan Sheet 3 of 19**
   a. Provide the width of the commercial entrance.
   b. Provide offset distance from existing edge of pavement (white edge line) to face of proposed CG-3 curb, i.e. twelve feet plus the proposed lane widening under VDOT Project HSIP-062-S02, M-501 –UPC #104677.
   c. The outside edge of future 6 ft. paved shoulder is incorrectly identified as the future edge of pavement (FUT. EP). Please correct.
   d. Identify the "Future 6 ft. Pave Shoulders"
   e. Replace notes for wipe down curb (CG-3) for commercial entrance to indicate a normal end of curb transition as standard with VDOT projects.

2. **Plan Sheet 4 of 19**
    a. Verify the spot elevations and final grade contours shown for the commercial entrance and curbing – some do not match.
    b. Provide Ditch Section(s) for proposed roadside ditch work. Ditch slopes to match 3:1 front slope.
    c. We question the need for the additional 15 inch diameter entrance pipe (designated #11) beneath the commercial entrance. Both the existing drainage and the drainage outfall designed under the VDOT project follow existing contours that will be picked up by the onsite driveway pipe culvert (designated #8) which leads into the stormwater retention facility. Thought should be given to eliminate the proposed line of pipe (#8), which will reduce the cost of construction.

3. **Plan Sheet 5 of 19**
    a. Intersection sight distance triangle was provided for 55 mph; however, measured intersection sight distance was not. In addition, we need the measured stopping sight distance for both the north bound and southbound directions along Route 151,along with the stopping sight distance for left turns from Route 151.
    b. WB-50 (design vehicle) turning template was provided for right turns into the commercial site. We also need the turning template for left turns into the site from Route 151 and right turns out of the site onto Route 151 north.
    c. See Comments 1.c and 1.d.
    d. If the 15 inch diameter entrance pipe culvert can be eliminated (see Comment 2.c), please remove from the plan sheet. If not, adequacy of the roadside ditch from the outlet needs to be verified. See Comment 5.a. Also, verify the elevations provided for the inverts of pipe culvert #8 in the profile view.
    e. Please include the VDOT station number of the centerline for the proposed commercial entrance denoted in the profile view. This will help with to determining its location in the field.

4. **Plan Sheet 6 of 19**
    a. Please verify the length of pipe culvert (#11) in the diagram for Entrance Culvert Storm Str. #11 as it differs from the length used in the drainage calculation. If this line of pipe is eliminated, then please remove the diagram.

    b. In the diagram titled "Pavement Joint Detail", please include the notation that the boundary between the existing pavement and the proposed pavement is the painted edge line (otherwise identified as the edge of pavement or edge of travel lane).
    c. In the diagram titled "Pavement Section in VDOT ROW", the aggregate base material is to extend one foot beyond the bituminous asphalt material. Also, correct the bottom asphalt layer asphalt base material to "Asphalt Base Course (BM-25.0A)" Please note that this pavement design does not end at the right of way line but extends through the commercial entrance to the back of the 45 foot radius (approximately Entrance Centerline Station 10+70). Please denote this in the diagram title and notation.
    d. In the diagram titled "Site Entrance Profile", please verify grades and location of grade break (location of the proposed lane widening and paved shoulder) with the VDOT

project plans at this location. Also, to aide in the construction of the commercial entrance that incorporates the proposed lane widening under the upcoming VDOT project, please provide two additional cross sections on the southern side of the entrance where the roadway transition will occur. One at the beginning of the 75 foot taper and one at the beginning of the CG-3 radial curbing. This will assist in identifying the grade breaks in pavement are of the commercial entrance.

e. This sheet includes guidance for traffic control while performing work within VDOT's right of way. We foresee the need for a lane closure in addition to the cited shoulder operation with minor encroachment. Please include the appropriate references, details and guidance related to lane closure operations as well.

5. **Plan Sheet 7 of 19**
   a. The ditch calculations do not provide the ditch cross section/geometry along Route 151 between Stations 127+ 50 for 129+00 for out fall from the 15 inch entrance pipe culvert. Please provide additional information to verify adequacy of channel along the primary roadway.

6. **Plan Sheet 8 of 19**
   a. Along with the VDOT's standard CG-3 diagram (Standard 4" Curb), please add a plan note or notation that the stone sub-base material is to extend the full width under the concrete CG-3 curbing. Also, the soil backfill behind the CG-3 is to extend a minimum of 2 feet before falling at a maximum 3:1 slope (Fill Section) to grade.
   b. In the detail for "Pavement Section Outside of VDOT ROW", please clarify that this pertains to the roadway section beyond the end of the entrance's 45 foot radius (approximately Entrance Centerline Station 10+70).

7. **Plan Sheet 9 of 19**
   a. Include "Ditch Sections" for the proposed Route 151 roadside ditch to be constructed, if the 15 inch diameter entrance pipe culvert (#11) is not eliminated.

A copy of this letter is being provided to the consultant engineers with Roudabush, Gale & Associates, Inc. I will be happy to meet and discuss any questions regarding these comments. Please provide me with an electronic copy of the signed and sealed revised site plans for our final review.

Sincerely,

Jeffery B. Kessler, P.E.
Area Land Use Engineer
(434) 856-8293

CC: Matthew D. Clark
Christopher C. Mulligan, P.E.
Ammy George

NELSON COUNTY PLANNING COMMISSION
MEETING MINUTES
January 28, 2015

Present: Chair Philippa Proulx, Commissioners Linda Russell, Mary Kathryn Allen, Mike Harman, and Robert Goad.

Absent: Larry Saunders (Board of Supervisors Liaison) and Stormy Hopkins, Secretary

Staff Present: Tim Padalino, Director of Planning & Zoning

Call to Order: Chair Proulx called the meeting to order at 7:00 P. M. in the General District Courtroom, County Courthouse, Lovingston.

Election of Officers: Commissioner Russell made a motion to elect Philippa Proulx as Chair; Michael Harman as Vice-Chair; and Stormy Hopkins as Secretary to the Planning Commission. Commissioner Goad provided a second; the vote 5-0.

Approval of Minutes – December 17, 2014: Chair Proulx asked to postpone the approval of minutes until next month's meeting. The Planning Commission members agreed.

Chair Proulx stated that there are no public hearing items; and noted that there are items that will be discussed but will not be open for public comment.

1. **Major Site Plan #2014-005 – Ms. Ammy George / Roudabush, Gale and Associates "Zenith Quest International"**

Mr. Padalino stated that the Planning & Zoning Department received revised Site Plan materials for Major Site Plan #2014-005 at the end of December. He noted that this resubmittal represents the applicant's responses to the initial Site Plan Review Committee and Planning Commission meetings; which were conducted in October. Mr. Padalino provided an overview of the resubmittal, which contained the following:

- a revised Site Plan (which addresses many of the issues identified in the original drawings);
- a lighting plan, which is contained on sheets 18 and 19;
- a photograph showing the size and appearance of a proposed new sign; and
- architectural drawings showing the preliminary plans and elevations for the proposed warehouse facility and future office building

Mr. Padalino noted that the applicant provided narrative responses to each of the review comments that were originally provided by the County. He also noted that, he too, provided updated comments to the applicant's responses. Mr. Padalino then indicated that there are some topics that still require further review by the Planning Commissioners. Those topics include: landscaping and improved screening of industrial uses; color and material of the warehouse structure, including exterior walls and the roof; ability to use Family Lane for secondary emergency access purposes; and the need to establish a developers bond for all the required improvements prior to final approval of the Site Plan.

Mr. Padalino provided updated comments from the Site Plan Review Committee members, as follows:

- Mr. Jeff Kessler of Virginia Department of Transportation (VDOT) stated that the, "traffic report is acceptable and that, neither a right turn lane or a left turn lane would be warranted for a commercial entrance on Route 151."
- Ms. Alyson Sappington of the Thomas Jefferson Soil & Water Conservation District, which provides review of the Erosion & Sediment Control Plan (E&S), indicated on January 9th that the E&S Control Plan was acceptable, and that she was prepared to provide her approval signature on the final plan

drawings. She also reminded the applicant of the need to obtain permit coverage through the Virginia Department of Environmental Quality (DEQ) for the Storm Water Management Program.

- Mr. Tom Eick of the Health Department noted that he has not received permits and has only approved a permit for a "IIIB well", which does not appear to satisfy the whole project. The applicant team indicated that they would be submitting those permit applications to the Health Department sometime this week.
- Mr. David Thompson, Building Code Official, confirmed that the layout of the proposed fire access road is sufficient and it does meet code requirements. It would be a twenty (20) foot wide (gated) gravel road, accessing the rear of the property. Mr. Thompson also confirmed that the secondary emergency access provides acceptable access to all areas of the warehouse, with respect to maximum distances allowed between the end of the emergency access road and the farthest extent of the building footprint.
- Mr. Kenneth L. Kent, Assistant Fire Marshall in the Western Region of the State Fire Marshall's Office, clarified that they do not get involved in plan review; they only do walk-throughs after a building is permitted and constructed; and only engage in any necessary enforcement activities after buildings are planned, permitted, constructed and operated.

Mr. Padalino showed various slides to summarize the location and characteristics of the subject property and its surroundings. Mr. Padalino also showed excerpts from the revised resubmitted Site Plans.

- The Existing Conditions sheet shows the topography; some of the drainage areas; adjoining properties; and the long frontage on Critzer Shop Road.
- The General Site Layout Plan shows the 80,000 square foot warehouse with multiple loading docks, and a two-story office building that will be constructed in the future as a second phase. The site would be accessed from a new commercial entrance from Route 151. There will be a gated and fenced access road up to a large loading area to access docks and an employee parking area.
- The Grading Plan shows a large Stormwater Management facility.
- The Landscaping Plan has been significantly revised since the first submission, with a lot of positive improvements. There have been a lot of plantings added along the road (including both trees and shrubs, as well as canopy trees). There is an interesting mix of native plants, including some species that are not that common. However, the majority of those proposed canopy trees along the road frontage are deciduous, and are arranged in a single linear format. Mr. Padalino stated that he believes the proposed Landscaping Plan would not provide effective screening for a large portion of the year, due to the layout and the deciduous foliage. There is a recommendation to revise this portion of the Landscaping Plan; to include additional evergreen trees that could be staggered behind the proposed deciduous trees and shrubs to provide greater depth of vegetation materials, which would provide year-round foliage, and thereby create more effective screening. Mr. Padalino also explained that there are no proposed landscaping materials to screen the loading area or the parking area adjacent to the warehouse. He noted that staff recommends trying to incorporate additional landscaping areas along the warehouse, situated in between the loading dock areas, to provide more effective screening of the very large warehouse façade without interfering with the building's operations. Mr. Padalino then noted that the applicant recently submitted an updated "sketch" offering additional landscaping and screening considerations. The sketch shows additional coniferous vegetation along the right-of-way, and some landscaping along the parking lot and loading area. Mr. Padalino deferred to the applicant to further comment on the updated sketch.
- The Lighting Plan shows a photometric plan to portray that the lights will not leave the property; there will not be a glare on adjoining properties or on the right-of-way; which is required by the ordinance. On Sheet 19, there are details specific about the type of light fixtures that will be used.
- Mr. Padalino showed images that were provided by the applicant to show the proposed roof color; which appears to be light in color. Images were also provided to show the details of the proposed sign.

Ms. Ammy George, Roudabush, Gale and Associates: Ms. George indicated that she represents the clients for Zenith Quest International. Ms. George stated that in regards to the landscaping and screening, they have agreed to add evergreen trees along Route 151, which will be staggered behind the evergreen shrubs to add a second layer to screen the building. She also noted that they are proposing canopy trees, low growing shrubs and ornamental grasses. She indicated that security is a big concern and visibility is key in that area, which is why they went with the low growing shrubs.

Ms. George noted that in regards to concerns with the face of the building not having any landscaping, it is not typical to have landscaping along the front of a building in a situation such as this with a loading area. She noted that due to the compaction of the soil, there is not a lot of root zone area for anything to grow or survive in the loading area or parking lot. She also noted that having landscaping adjacent to the building would create a blind spot for the employees that would be looking out from the inside of the building, which would add to the security concern.

Chair Proulx asked about the scale of the proposed evergreens. Ms. George noted they were looking at Virginia Pines, Scotch Pines and Red Cedars. The Virginia & Scotch Pines grown to be about thirty (30) to sixty (60) feet in height at maturity. The Red Cedars grow to be about twenty-five (25) to thirty (30) feet in height. She noted that both the Virginia Pines and Red Cedars are fast growing.

Commissioner Russell asked about the dumpster. Ms. George noted that the dumpster would be enclosed with a board-on-board fence with no landscaping. She also indicated that a color had not been chosen for the fencing. Chair Proulx asked about the color of the roof. Ms. George stated that it would be the off-white color and they have considered other colors but that is the preference due to cost.

Ray Miles, Zenith Quest International: Mr. Miles stated that they are working with Harman Construction in Harrisonburg on the colors. He noted that the roof is a Galvalume roof that already comes pre-coated. The basic color is the off-white and it could be a different color for an additional cost. For the colors of the side walls, they are thinking of trying to go with more of an earth tone as opposed to an off-white or tan.

Commissioner Harman asked if the sign out front would be lighted. Ms. George stated that the sign would have lighting on it; and it would be small. Commissioner Russell asked about the private road issue and if there was more information. Ms. George stated that they have been talking with some of the Fire Chiefs in the area to discuss whether they needed legal access to enter the rear of the ~~building~~ property. Mr. Miles noted that back in September, the Building Official, David Thompson, deferred to the Fire Chief. He also noted that he met with Tommy Harvey and Don Fitzgerald, former Fire Chief at Wintergreen; and they came up with the option to have a back gate with a driveway. He stated that during conversation, it was asked several times if an easement was needed for Family Lane due to it being a private property. He noted that Mr. Harvey and Mr. Fitzgerald stated that from their experience, fire or emergency services do not need an easement to go anywhere during an emergency. At that point, he did not pursue an easement. He noted that he later met with Mr. Harvey, who stated that he should meet with David Graves of the fire department and Don Fitzgerald and share the proposed plans. From that meeting, he stated that Mr. Graves indicated that he did not know of anything that would prohibit the fire company to go anywhere they needed to in order to fight fire; so he didn't see a need for an easement. He stated that Mr. Graves reviewed the plans and stated that a lock box should be put up so that the crews could get through the gates. He noted that he has not met with Mr. Fitzgerald. Mr. Miles indicated that he plans to go back to Mr. Harvey and request something in writing from the Rockfish Valley Fire Department.

Chair Proulx asked about any outstanding issues with the Health Department. Ms. George stated that the permit for the septic field will be turned in to the Health Department within the next week. Chair Proulx asked if the fence is going to be angled with wire on top. Ms. George stated that had not been decided.

Commissioner Russell stated that as one member of the Planning Commission, she appreciates all of the work that Ms. George, Mr. Miles and various others have done to try to comply with the regulations of the County and with the concerns that the people in the County have for the proposed project. She also noted that she does not feel prepared to approve the landscaping plan, but does not have a problem deferring to the Planning Director for his review and approval. She stated that she is still concerned with the fire issue and unseen hazards, and is personally uncomfortable with approving this without some assurance that the County is not going to be held liable for lack of preparation, should there be some sort of issue.

Chair Proulx asked Commissioner Allen if she knew about the availability of HAZMAT~~,~~ teams should such ~~an instance~~ need arise there. Commissioner Allen stated that a HAZMAT crew would be called out of Charlottesville; and noted that she feels the Rockfish department should be trained and would be capable of

handling such a situation. Mr. Padalino indicated that he reached out to the Nelson County Emergency Services Coordinator, Ms. Jaime Miller, and she clarified that a big part of the issue is awareness and having local fire crews understand what the facility is used for and what materials are inside, in order to be able to respond safely and correctly. The other point that Ms. Miller shared was that, upon permits being obtained and the facility being constructed, she would perform a walk-through with Zenith Quest to understand how to then train and coordinate with local emergency crews. Mr. Padalino stated that as far as HAZMAT is concerned, Ms. Miller informed him that ammunition is not considered the highest grade hazardous material.

Commissioner Russell made a motion in relation to the Major Site Plan application #2014-005 for construction of an 80,000 square foot storage warehouse, which would be one-story and a 10,000 square foot two-story attached office for storage of ammunition and light assembly of handheld guns. Supporting documents including a nineteen (19) page submittal by Roudabush, Gale & Associates, dated September 19, 2014, revised December 19, 2014; and preliminary building plans submitted by Harman Construction Company dated November 26, 2014, consisting of pages A101 and A201. This project is approved with the following conditions:

1. **The roof and siding colors shall be non-reflective and blend with the surrounding area to reduce impact on designated public overlooks, along Scenic Byways and the Blue Ridge Parkway. Final approval with rest with the Director of Planning & Zoning.**
2. **Additional plantings to soften the overall impact must be provided. Final approval with will rest with the Director of Planning & Zoning with advice from the Chairman of the Planning Commission. This should also include particular attention to heavy screening of the dumpster in the front of the warehouse.**
3. **A written clarification should be provided of the availability of Family Lane as a legal access for Nelson County fire department.**
4. **This approval is also subject to final approval by required state agencies, such as, but not limited to the Department of Conservation and regulations for a VSAP permit, and Health Department for septic and drainfield permits.**

Commissioner Harman provided a second; the vote 5-0.

2. **Major Site Plan #2014-008 – Mr. Michael Penny / Pennywell, LLC**

Chair Proulx indicated that this application was postponed at the applicant's request.

3. **Two Applications for Addition(s) to Existing Agricultural and Forestal District – Davis Creek AFD**

   Application for Addition(s) to Existing Agricultural and Forestal District – Dutch Creek AFD

   Application to create new Agricultural and Forestal District – Afton / Greenfield

Mr. Padalino provided an overview of the AFD review process that was discussed at the December Planning Commission meeting. He began with the two applications for additions to the Davis Creek AFD, which were submitted by Mr. Bolton and Mr. Derdeyn. Mr. Padalino showed maps of the existing AFD's. Mr. Derdeyn's application was received on January 9, 2015. Mr. Bolton modified his application and resubmitted it on January 20, 2015, with the addition of a sixth landowner, which would make a total of two hundred sixteen (216) acres. Mr. Derdeyn's acreage did not change.

Mr. Padalino stated that there is also an application for an addition to the Dutch Creek AFD, and he provided a map for that existing AFD area. The application was received on January 15, 2015 for the proposed addition of three (3) property owners, which includes eleven (11) parcels, for a total of seven hundred thirty-one (731) acres.

Mr. Padalino noted that the County also received an application for the creation of a new district, titled the Greenfield AFD, submitted by Ms. Joyce Burton, on January 16, 2015. There are thirty-eight (38) property

Other (as determined by Planning Commission members / as applicable):

Mr. Padalino stated that in regards to the Blue Mountain Brewery Amended Site Plan #2014-007, the applicant previously agreed to submit a traffic summary report to VDOT. The report has since been submitted; however, VDOT requested revisions to that traffic summary, which is currently pending. During the postponement and the revised traffic summary process, there has been some question as to what the appropriate review process should be. Mr. Padalino asked the Planning Commission for their take on this matter, and whether the amended site plan should return to them for their review, or if it should be reviewed administratively. Chair Proulx stated that she does not see what role the Planning Commission would play at this point, as the plan being submitted shows what is already there, not a proposed expansion, and she thinks ~~and that~~ staff could do the approval.

Commission Russell made a motion that stated the Planning Commission does not normally concern itself with Amended Site Plans and has previously referred this determination to the Director of Planning & Zoning. Therefore, in the matter of the Amended Site Plan application #2014-007 for Blue Mountain Brewery, the Planning Commission wishes to continue this policy. However, the Commission understands that this application will be subject to comment and approval by certain State Agencies represented on the Site Plan Review Committee.

Commissioner Allen provided a second; the vote 5-0.

Mr. Padalino stated that Virginia Distillery Company, in Eades Hollow in Lovingston, received administrative approval for their amended site plan, pending the establishment of the developers bond for the required improvements.

Mr. Padalino then noted that the Village at Glen Mary is also going through an Amended Site Plan process, which was handled administratively from the beginning. He noted that revised final plans were received by the Planning & Zoning office this morning, which should presumably address all the review comments that were previously provided. Mr. Padalino stated that he was told by the applicant that approvals have been obtained from some regulatory agencies, such as VDOT and Soil & Water Conservation District for the Erosion & Sediment Control Plan; but that there are a few other pending approvals, which are expected to be obtained by Friday.

Commissioner Russell asked about Page's Palette. Mr. Padalino stated that he reached out to Mr. Jeff Kessler last week and he has not received an updated report from Mr. Morris Foster. Therefore, Mr. Kessler had no new information or review comments. Mr. Padalino noted that he did receive a message from Mr. Kessler today stating that he and Mr. Foster have been playing phone tag, but does have an update.

Commissioner Russell stated that she would like the minutes to reflect that on January 6th, the Department of Planning & Zoning received an email from Ms. Cheryl Taylor, who is the representative for AT&T in their request for a Class III Communication Tower Permit #2013-007. This email conveyed the applicant's request to withdraw the application. Commissioner Russell stated that the PC had given Ms. Taylor a deferral, and then had asked staff to notify Ms. Taylor that the PC was considering terminating this deferral.

Adjournment:
At 9:12 P.M. Commissioner Harman motioned to adjourn.

Respectfully submitted,

Stormy V. Hopkins

Stormy V. Hopkins
Secretary, Planning & Zoning

DEPARTMENT OF
PLANNING & ZONING

PLANNING COMMISSION
BOARD OF ZONING APPEALS

CERTIFIED MAIL

February 9, 2015

Mr. Hanri Kaya, CFO
Zenith Quest International, LLC
522 Chinquapin Drive
Lyndhurst, VA 22952

Hello Mr. Kaya,

Greetings from Nelson County. I am contacting you as the listed applicant for Major Site Plan #2014-005 on behalf of Zenith Quest International, LLC.

This letter acknowledges that on January 28th, 2015, the Nelson County Planning Commission conducted a review of (revised) Major Site Plan #2014-005 "Zenith Quest – Afton Mountain."

Specifically, this letter confirms that the Planning Commission provided conditional approval of the site plan with the following motion, which was provided by Commissioner Russell, seconded by Commissioner Harman, and which received unanimous "yes" votes from the five (5) Commissioners present:

Commissioner Russell made a motion in relation to the Major Site Plan application #2014-005 for construction of an 80,000 square foot storage warehouse, which would be one-story and a 10,000 square foot two-story attached office for storage of ammunition and light assembly of handheld guns. Supporting documents including a nineteen (19) page submittal by Roudabush, Gale & Associates, dated September 19, 2014, revised December 19, 2014; and preliminary building plans submitted by Harman Construction Company dated November 26, 2014, consisting of pages A101 and A201. This project is approved with the following conditions:

1. ***The roof and siding colors shall be non-reflective and blend with the surrounding area to reduce impact on designated public overlooks, along Scenic Byways and the Blue Ridge Parkway. Final approval will rest with the Director of Planning & Zoning.***
2. ***Additional plantings to soften the overall impact must be provided. Final approval will rest with the Director of Planning & Zoning with advice from the Chairman of the Planning Commission. This should also***

include particular attention to heavy screening of the dumpster in the front of the warehouse.

3. ***A written clarification should be provided of the availability of Family Lane as a legal access for Nelson County fire department.***
4. ***This approval is also subject to final approval by required state agencies, such as, but not limited to the Department of Conservation and regulations for a VSAP permit, and Health Department for septic and drainfield permits.***

Therefore, Major Site Plan #2014-005 has obtained County approval with conditions. Please note the following information, regarding the conditions specified in the Planning Commission's conditional approval:

- Please endeavor to satisfy the language contained in the first condition. When those details are finalized, please submit appropriate documentation representing the color/finish of the roof materials and siding materials for my review and acceptance.
- Please submit a revised landscaping plan for my review and approval, in accordance with the issues and concerns that were discussed during the review of the site plan drawings at the January 28th PC meeting.
- The review and approval of Registered Land Disturbance Permits, Building Permits, and/or Certificate(s) of Occupancy are administered by the Building Inspections Department. All such reviews and approvals take place after site plan approval is obtained; therefore, you may now proceed with those permit applications.
- Please proceed with securing all necessary approvals and authorizations from applicable state agencies.

If you have any questions or comments, or if we may provide additional assistance, please don't hesitate to let us know.

Thanks very much; sincerely,

Timothy M. Padalino

Director of Planning & Zoning

TMP/svh

Copy to: Ms. Ammy George, Roudabush Gale & Associates

VDOT STANDARD NOTES

1. THESE PLANS WERE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF (SELECT ONE):
   - ☐ VDOT SUBDIVISION STREET REQUIREMENTS (SSR) PRE-2009
   - ☐ VDOT SUBDIVISION STREET ACCEPTANCE REQUIREMENTS (SSAR) 7-1-2009
   - ☒ N/A
2. TRIP GENERATION DATA

USE: GENERAL LIGHT INDUSTRY/GENERAL OFFICE
ITE CODE: 110/710
TOTAL DAILY TRIPS: 201 VPD*
AM PEAK HOUR TRIPS: 15 VPH
PM PEAK HOUR TRIPS: 14 VPH
*20 TRUCKS PER MONTH WILL ACCESS THE PROJECT SITE. THE TOTAL DAILY TRIPS INCLUDE THOSE TRIPS GENERATED BY THE TRUCKS.

3. THE DESIGN VEHICLE IS WB-50 TRUCK.
4. ALL CONSTRUCTION METHODS AND MATERIALS WITHIN STATE MAINTAINED RIGHT OF WAY SHALL BE IN ACCORDANCE WITH CURRENT VDOT STANDARDS, SPECIFICATIONS, CURRENT "WORK AREA PROTECTION MANUAL", AND ALL APPLICABLE LOCATION AND DESIGN INSTRUCTIONAL AND INFORMATIONAL MEMORANDUM. INSPECTION DOCUMENTATION SHALL BE PROVIDED CONSISTENT WITH THE VDOT INSPECTION DOCUMENTATION BEST PRACTICES MANUAL.
5. A LAND USE PERMIT SHALL BE OBTAINED FROM VDOT BEFORE ANY CONSTRUCTION IS STARTED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS, INCLUDING ACCESS. ALL LAND USE PERMIT APPLICATIONS MUST HAVE TWO (2) SETS OF APPROVED PLANS, A COPY OF THE PLAN APPROVAL LETTER, A CHECK FOR THE PROCESSING FEE MADE PAYABLE TO TREASURER OF VIRGINIA, AND SURETY OR BOND IN THE REQUIRED AMOUNT.
6. IN ACCORDANCE WITH THE PROVISIONS OF THE INSPECTION DOCUMENTATION BEST PRACTICES MANUAL, VDOT SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK WITHIN STATE MAINTAINED RIGHT OF WAY. THE CONTRACTOR WILL COORDINATE WITH THE VDOT POINT OF CONTACT AT SIGNIFICANT STAGES OF THE PROJECT.
7. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL CONSULT THE ENGINEER WHO SEALED THE PLANS TO VERIFY THE APPROVAL OF THE PLANS BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL AGENCIES.
8. THE CONTRACTOR SHALL HAVE AVAILABLE A COPY OF THE LAND USE PERMIT(S), FINAL APPROVED PLANS, ANY APPROVED REVISIONS, AND A COPY OF THE APPROVAL LETTER ON SITE.
9. THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF ALL POINTS OF CONNECTION OR PROPOSED WORK TO EXISTING CURBS, SANITARY LINES, WATERLINES, ETC., PRIOR TO CONSTRUCTION.
10. ANY ERRORS, CONFLICTS, OR DISCREPANCIES FOUND ON THE APPROVED PLANS SHALL BE REPORTED TO THE ENGINEER WHO SEALED AND SIGNED THE PLANS. VDOT SHALL BE NOTIFIED FOR RESOLUTION BEFORE PROCEEDING FURTHER WITH THE WORK, IF THE STATE MAINTAINED RIGHT OF WAY IS AFFECTED.
11. DESIGN CHANGES, SPECIFIED MATERIAL CHANGES, AND /OR FIELD CHANGES FROM THE APPROVED PLANS SHALL BE RE-SUBMITTED TO VDOT FOR REVIEW AND APPROVAL, PRIOR TO PROCEEDING WITH THE WORK.
12. THE DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS, UTILITIES, AND ANY OTHER INSTALLATIONS ALREADY IN PLACE WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO STATE RIGHT OF WAY LIMITS.
13. THE COMMONWEALTH TRANSPORTATION BOARD, MEMBERS OF THE BOARD, THE COMMONWEALTH AND ALL COMMONWEALTH EMPLOYEES, AGENTS, AND OFFICES, SHALL BE ABSOLVED FROM ALL RESPONSIBILITIES, DAMAGES AND LIABILITIES AS A RESULT OF WORK ARISING FROM THE EXERCISE OF THE PRIVILEGES GRANTED BY PLAN AND/OR PERMIT APPROVAL.VDOT STANDARD NOTES 2012 2
14. NO STRUCTURE SHALL BE CONSTRUCTED ON VDOT RIGHTS OF WAY UNLESS SHOWN ON VDOT APPROVED CONSTRUCTION PLANS OR COVERED BY A VDOT LAND USE PERMIT.
15. VDOT SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ANY STORMWATER MANAGEMENT FACILITY OR OUTFALL STRUCTURE LOCATED OUTSIDE OF STATE MAINTAINED RIGHT OF WAY LIMITS AND SHALL BE ABSOLVED FROM ALL RESPONSIBILITIES, DAMAGES AND LIABILITIES AS A RESULT OF SUCH.
16. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK AND VIRGINIA STORMWATER MANAGEMENT PROGRAM. AN INDIVIDUAL CERTIFIED BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION, HOLDING A RESPONSIBLE LAND DISTURBER CERTIFICATION, SHALL BE IN CHARGE OF THE LAND DISTURBING ACTIVITY AND ON THE WORK SITE AT ALL TIMES.
17. PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA. THE COMPLETED DESIGN WORKSHEET SHALL BE INCLUDED WITH THE INITIAL PLAN SUBMITTAL FOR EACH PROPOSED PAVEMENT SECTION UTILIZING THE PREDICTED SOIL SUPPORT VALUE SHOWN IN THE APPENDIX OF THE PAVEMENT DESIGN GUIDE. FOR PRIMARY ROADS AND INTERSTATE HIGHWAYS WHERE TRUCK TRAFFIC EXCEEDS 5%, PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH AASHTO GUIDELINES. THE FINAL PAVEMENT DESIGN MUST BE BASED ON THE ACTUAL CBR.
18. AN ACTUAL COPY OF THE COMPLETE CBR REPORT SHALL BE SUBMITTED TO VDOT IN CONJUNCTION WITH FINAL PAVEMENT DESIGNS. ALL PAVEMENT DESIGN RECOMMENDATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF "THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA".
19. ASPHALT PAVEMENT WIDENING SHALL CONFORM TO VDOT STANDARD WP-2.
20. ALL PAVEMENT MARKINGS ERADICATED DURING CONSTRUCTION MUST BE OVERLAID WITH SURFACE MIX OR SLURRY SEAL #4.
21. ALL VEGETATION AND ORGANIC MATERIAL SHALL BE REMOVED FROM THE RIGHT OF WAY LIMITS PRIOR TO CONDITIONING OF THE SUB-GRADE.
22. WHEN UNSUITABLE MATERIALS FOR SUB-GRADES AND OTHER ROADWAY CONSTRUCTION ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT A GEOTECHNICAL ENGINEER AND VDOT. SUCH MATERIALS SHALL BE UNDERCUT AND BACKFILLED AS DIRECTED BY A GEOTECHNICAL ENGINEER, ACCORDING TO VDOT SPECIFICATIONS.
24. THE NECESSITY FOR ADDITIONAL VDOT STANDARD UNDER DRAINS SHALL BE DETERMINED AT TIME OF SUB-GRADE INSPECTION.
25. THE SCHEDULING OF AGGREGATE BASE INSTALLATION AND SUBSEQUENT PAVING ACTIVITIES SHALL ACCOMMODATE FORECAST WEATHER CONDITIONS ACCORDING TO VDOT "ROAD AND BRIDGE SPECIFICATIONS".
26. A GEOTECHNICAL REPORT SHALL VERIFY/APPROVE STONE DEPTHS IN ACCORDANCE WITH VDOT APPROVED PAVEMENT DESIGNS, PRIOR TO ASPHALT PLACEMENT.
27. A PRIME COAT SEAL BETWEEN THE AGGREGATE BASE AND BITUMINOUS CONCRETE SHALL BE REQUIRED PER VDOT STANDARDS AND SPECIFICATIONS.
28. VDOT SHALL HAVE APPROVED ALL BASE COURSES FOR DEPTH AND TEMPLATE AND PERFORMED THE REQUIRED VISUAL, PROOF ROLL, COMPACTION, AND ANY ADDITIONAL INSPECTIONS AS DETERMINED BY THE VDOT INSPECTOR PRIOR TO PLACEMENT OF ANY SURFACE COURSES.VDOT STANDARD NOTES 2012 3
29. VDOT SHALL BE PROVIDED DOCUMENTATION BY A LICENSED GEOTECHNICAL ENGINEER, CERTIFYING THAT ALL IN-PLACE PAVEMENTS MEET OR EXCEED THE APPROVED PAVEMENT DESIGN THICKNESS PRIOR TO VDOT ACCEPTANCE FOR MAINTENANCE. THE CERTIFYING DOCUMENTATION SHALL CONFORM TO VDOT SPECIFICATIONS AND THE APPROVED PLANS.
30. A LICENSED GEOTECHNICAL ENGINEER SHALL ASCERTAIN THE CAUSE AND CERTIFY A RECOMMENDED METHOD OF REPAIR FOR ALL PAVEMENT STRUCTURAL FAILURES PRIOR TO VDOT ACCEPTANCE FOR MAINTENANCE.
31. INSTALLATION OF PIPE CULVERTS AND STORM SEWERS SHALL CONFORM TO VDOT STANDARD PB-1.
32. ALL STORM SEWER SHALL BE A MINIMUM DIAMETER OF 15".
33. ALL PRE-CAST UNITS SHALL BE VDOT APPROVED. CERTIFICATION AND VDOT STAMP WILL BE REQUIRED ON ALL UNITS. SHOP DRAWINGS, GEOTECHNICAL DATA, SOIL BEARING CAPACITY, AND PLAN VIEW SHALL BE SUBMITTED AS A PACKAGE FOR VDOT REVIEW AND APPROVAL.
35. ALL ENTRANCES SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CURRENT VDOT STANDARDS.
36. THE DEVELOPER IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SIGNS FOR THE PROPOSED DEVELOPMENT. THE CONTRACTOR SHALL CONTACT VDOT TO ESTABLISH LOCATIONS FOR STOP SIGNS AND STOP BARS.
37. ALL FIXED OBJECTS SUCH AS UTILITY CABINETS, PEDESTALS, AND STREETLIGHTS SHALL BE LOCATED IN ACCORDANCE WITH CLEAR ZONE REQUIREMENTS, AS NOTED IN THE ROAD DESIGN MANUAL. THERE SHALL NOT BE ANY CABINETS, PEDESTALS, OR FIRE HYDRANTS LOCATED ON THE SHOULDER.
38. FLOWERS, SHRUBS, AND TREES SHALL NOT BE PLACED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT AN APPROVED SET OF PLANS AND AN APPROVED PLANTING AGREEMENT. NO IRRIGATION (SPRINKLER) SYSTEMS, BRICK COLUMNS, ENDWALLS, AND/OR BRICK MAILBOXES WILL BE CONSTRUCTED OR INSTALLED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT A PERMIT. ANY OF THE ABOVE ITEMS FOUND IN THE RIGHT OF WAY WITHOUT A PERMIT SHALL BE REMOVED, AND ALL COSTS OF THE REMOVAL SHALL BE BORNE BY THE OWNER AND/OR DEVELOPER.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND OVERHEAD UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THE PLANS, PRIOR TO STARTING WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRS, AT HIS OWN EXPENSE, OF ANY UTILITIES DAMAGED BY HIS CONSTRUCTION METHODS. MISS UTILITY MUST BE CONTACTED AT 811 AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITY WITHIN EXISTING OR PROPOSED RIGHT OF WAY.
40. ALL CONSTRUCTION DEBRIS, MATERIALS, DUMPSTERS, ETC, SHALL BE LOCATED OUTSIDE THE RIGHT OF WAY.
41. AUTHORIZED UNDERGROUND UTILITY INSTALLATIONS SHALL MAINTAIN A MINIMUM OF 36 INCHES OF COVER, INCLUDING UNDER DITCHES.
42. OVERHEAD UTILITY INSTALLATIONS WITHIN LIMITED ACCESS AND NON LIMITED ACCESS RIGHT OF WAY SHALL BE INSTALLED IN ACCORDANCE WITH VDOT LAND USE PERMIT REGULATIONS.VDOT STANDARD NOTES 2012 4
43. ALL ROADWAY LIGHTING SHALL BE INSTALLED IN ACCORDANCE WITH IESNA LIGHTING CRITERIA AND IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS. ALL ROADWAY LIGHTING SHALL ADHERE TO THE VIRGINIA LIGHTING LAW.
44. CONTACT TRAFFIC ENGINEERING OPERATIONS A MINIMUM OF 48 HOURS IN ADVANCE WHENEVER EXCAVATION IS WITHIN 500 FEET OF A TRAFFIC SIGNAL, SO THE LINES CAN BE MARKED.
45. CONTACT TRAFFIC ENGINEERING OPERATIONS A MINIMUM OF 48 HOURS IN ADVANCE OF GUARDRAIL PLACEMENT. THE FINAL LOCATION OF GUARDRAIL WILL BE DETERMINED UPON PROJECT COMPLETION.
46. SIGHT DISTANCES AT ENTRANCES AND INTERSECTIONS SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. ANY OBJECT OR LANDSCAPING THAT OBSTRUCTS DRIVER VIEW SHALL BE RELOCATED AT THE DEVELOPER'S EXPENSE OR THE ENTRANCE MAY BE CLOSED AT VDOT'S DISCRETION.
51. THE PERMITEE IS RESPONSIBLE FOR PURSUING AND OBTAINING ANY AND ALL ENVIRONMENTAL PERMITS INCLUDING, BUT NOT LIMITED TO, WETLANDS, WATERS OF THE US, WATER QUALITY, THREATENED AND ENDANGERED SPECIES, HAZARDOUS MATERIALS, AND CULTURAL RESOURCES, REQUIRED TO PURSUE THE PROPOSED ACTIVITY BEFORE ANY CONSTRUCTION IS STARTED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS. DOCUMENTS RELATED TO THESE ACTIVITIES SHALL BE SUBMITTED WITH THE LAND USE PERMIT APPLICATION.
52. VDOT AND COUNTY APPROVAL OF CONSTRUCTION PLANS DOES NOT PRECLUDE THE RIGHT TO REQUIRE ADDITIONAL FACILITIES AS DEEMED NECESSARY FOR ACCEPTANCE FOR VDOT MAINTENANCE.

ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN

VICINITY MAP
SCALE: 1"=2000 FEET

LEGEND

EXISTING INTERMEDIATE CONTOUR
EXISTING INDEX CONTOUR
PROPOSED CONTOUR
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
TRANSITION FROM CG-6 CG-6R
EXISTING TELEPHONE LINE
PROPOSED TELEPHONE LINE
EXISTING STORM SEWER
PROPOSED STORM SEWER
EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
EXISTING ELECTRIC SERVICE
PROPOSED ELECTRIC SERVICE
EXISTING GAS LINE
PROPOSED GAS LINE
PROPERTY LINE
EASEMENT LINE
CENTERLINE
LIMITS OF CLEARING AND/OR GRADING
EXISTING SPOT ELEVATION
PROPOSED SPOT ELEVATION
EXISTING TREE DRIP LINE
EXISTING TREE
PROPOSED TREE
100-YR FLOOD OVERLAND RELIEF
FLOW LINE
EXISTING FENCE LINE
EXISTING UTILITY POLE
PROPOSED UTILITY POLE
EXISTING WATERLINE W/ TEE
PROPOSED WATERLINE W/ TEE
EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT
EXISTING WATER VALVE
PROPOSED WATER VALVE
PROPOSED WATER METER
EXISTING REDUCER
PROPOSED REDUCER
HANDICAP RAMP (CG-12)
PARKING INDICATOR
BENCHMARK
CRITICAL SLOPE
VEHICLES PER DAY COUNT
PROPOSED BUILDING ENTRANCE
EXISTING STREET LIGHT
PROPOSED STREET LIGHT
PROPOSED STREET NAME SIGN
EXISTING SIGN
PROPOSED SIGN
SANITARY MANHOLE IDENTIFIER
STORM DRAIN STRUCTURE IDENTIFIER

APPROVALS

	DATE
PLANNING AND ZONING DIRECTOR	
VIRGINIA DEPT. OF HEALTH	
THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT	

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 031672
PROFESSIONAL ENGINEER

SHEET INDEX

SHEET 1 —— COVER SHEET
SHEET 2 —— EXISTING CONDITIONS & SOILS PLAN
SHEET 3 —— LAYOUT & UTILITY PLAN
SHEET 4 —— GRADING PLAN
SHEET 5 —— ENTRANCE PLAN & TRAFFIC CONTROL
SHEET 5A —— ENTRANCE - SIGHT DISTANCE PROFILES
SHEET 6 —— ENTRANCE PROFILE & TRAFFIC CONTROL
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SHEET 7 —— PROFILES, COMPUTATIONS & DETAILS
SHEET 8 —— TYPICAL DETAILS
SHEET 9 —— DRAINAGE MAP
SHEET 10 —— SWM/BMP PLAN
SHEET 11 —— EROSION CONTROL PLAN - PHASE 1
SHEET 12 —— EROSION CONTROL PLAN - PHASE 2
SHEET 13 —— EROSION CONTROL NARRATIVE
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SHEET 17 —— LANDSCAPE PLAN
SHEET 18 —— SITE PHOTOMETRICS - LIGHTING PLAN
SHEET 19 —— SITE PHOTOMETRICS - LIGHTING DETAILS

SITE DATA

OWNER/DEVELOPER:	ZENITH QUEST INTERNATIONAL LLC 522 CHINQUAPIN DRIVE LYNDHURST , VA 22952
PLAN PREPARER:	ROUDABUSH, GALE & ASSOCIATES 914 MONTICELLO ROAD CHARLOTTESVILLE, VA 22902
(434) 293-4251	CMulligan@roudabush.com
TAX MAP PARCEL No:	4A-44A
PARCEL SIZE:	10.00 AC (435,845 SF) 0.36 AC (15,772 SF) APPROX. AREA OF FUTURE VDOT ROW DEDICATION 9.64 AC (420,073 SF) REMAINING SITE AREA
ZONING:	M2 INDUSTRIAL DISTRICT
USE:	WAREHOUSE WITH AFFILIATED OFFICE 80,000 SF WAREHOUSE 10,000 SF OFFICE 90,000 SF TOTAL
MAGISTERIAL DISTRICT:	03
TOPOGRAPHY:	ROUDABUSH, GALE & ASSOCIATES FIELD SURVEY ON JUNE 18, 2014
DATUM:	NAVD 88
BENCHMARK:	VDOT MONUMENT AT NORTHERN PROPERTY CORNER AT CRITZER SHOP ROAD ELEV = 778.68

PROJECT SITE IS APPROXIMATELY 720' FROM INTERSECTION OF CRITZER SHOP ROAD (RT. 151) AND AFTON MOUNTAIN ROAD (RT. 6)

SETBACK:	NONE
YARDS:	20' SIDE/REAR ADJACENT TO RESIDENTIAL, AGRICULTURAL OR CONSERVATION DISTRICT
SITE COVERAGE:	
BUILDING	85,000 SF BUILDING FOOTPRINT (20.25%)
PARKING/LOADING	79,608 SF (18.95%)
OPEN SPACE	255,487 SF (60.81%)
BUILDING HEIGHT:	LESS THAN 30'
PARKING REQUIRED:	1 SPACE PER EMPLOYEE MAXIMUM SHIFT
PARKING PROVIDED:	30 REGULAR PARKING SPACES (30 EMPLOYEES) 2 ACCESSIBLE PARKING SPACES 32 TOTAL PARKING SPACES

ALL UTILITY LINES SHALL BE INSTALLED UNDERGROUND. THIS INCLUDES ELECTRIC, TELEPHONE, CABLE, FIBER OPTIC, ETC...

ROUTE 151 - CRITZER SHOP ROAD IS A VIRGINIA SCENIC BYWAY.

THIS PROJECT IS PLANNED FOR TWO PHASES OF CONSTRUCTION. THE FIRST PHASE WILL INCLUDE THE CONSTRUCTION OF ALL SITE IMPROVEMENTS, UTILITIES AND THE WAREHOUSE PORTION OF THE PROPOSED BUILDING. THE SECOND PHASE OF CONSTRUCTION WILL INCLUDE THE OFFICE PORTION OF THE PROPOSED BUILDING.

ACCETABLE TO VDOT

VDOT REPRESENTATIVE: ______________ DATE: ________

"VDOT'S REVIEW IS NOT INTENDED TO BE EITHER COMPLETE OR COMPREHENSIVE AS IT IS THE RESPONSIBILITY OF THE SUBMITTING ENGINEER/SURVEYOR THAT SIGNS AND SEALS THESE PLANS TO ENSURE THE COMPLETENESS AND ACCURACY OF THEIR PLANS IN ACCORDANCE WITH GOVERNING LAWS, REGULATIONS, SPECIFICATIONS AND STANDARDS. PLAN ERRORS AND OR OMISSIONS THAT ARE DISCOVERED DURING CONSTRUCTION REMAINS THE RESPONSIBILITY OF THE SUBMITTING ENGINEER/SURVEYOR."

ROUDABUSH, GALE & ASSOCIATES, INC.
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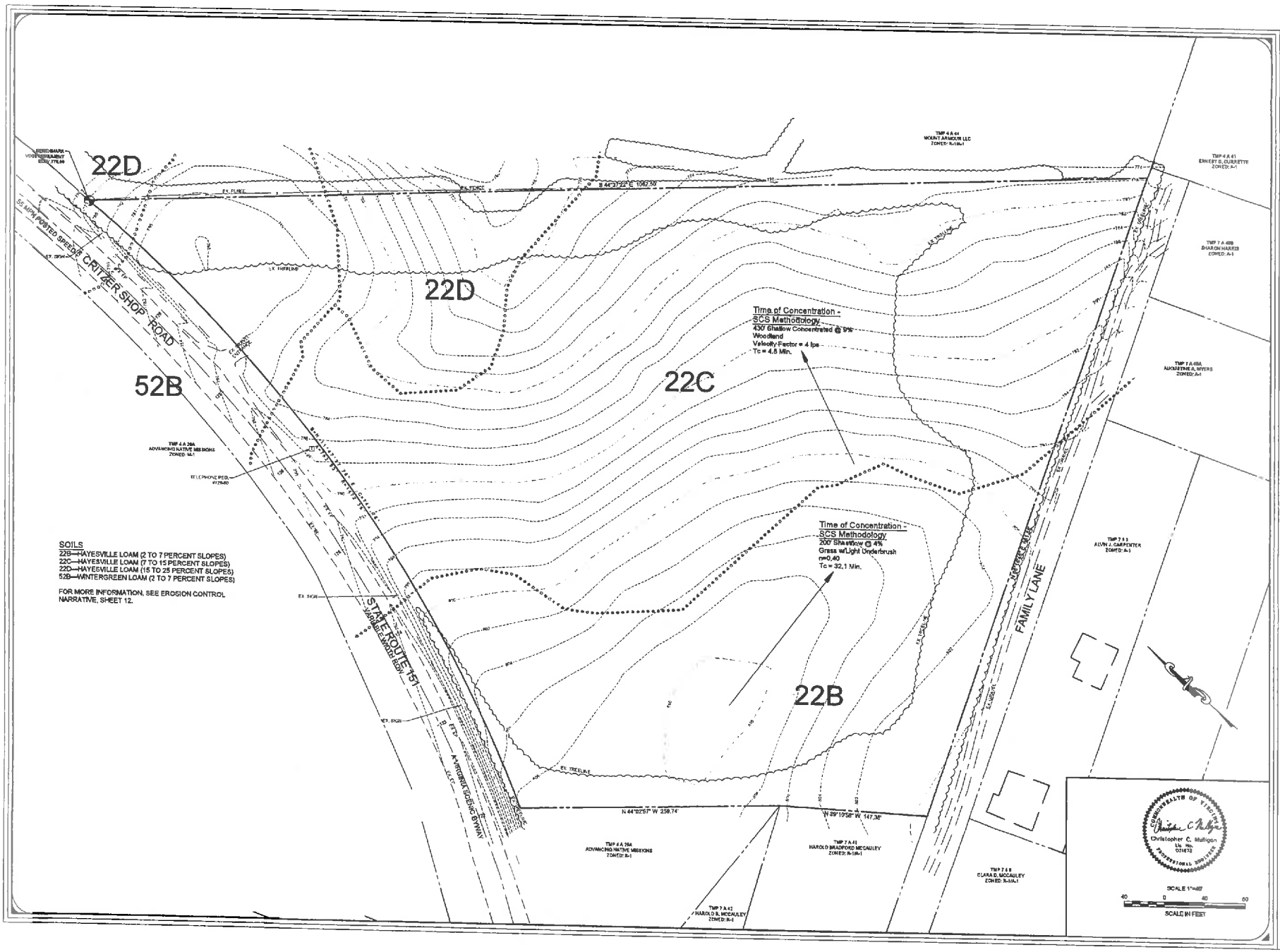
PHONE (434) 977-0205 - FAX (434) 296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/19/2014 Comments
03/11/2015 Comments

DATE: Sept. 19, 2014
SCALE: AS SHOWN
CONTOUR INTERVAL: N/A

COVER SHEET
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER: 8572



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REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

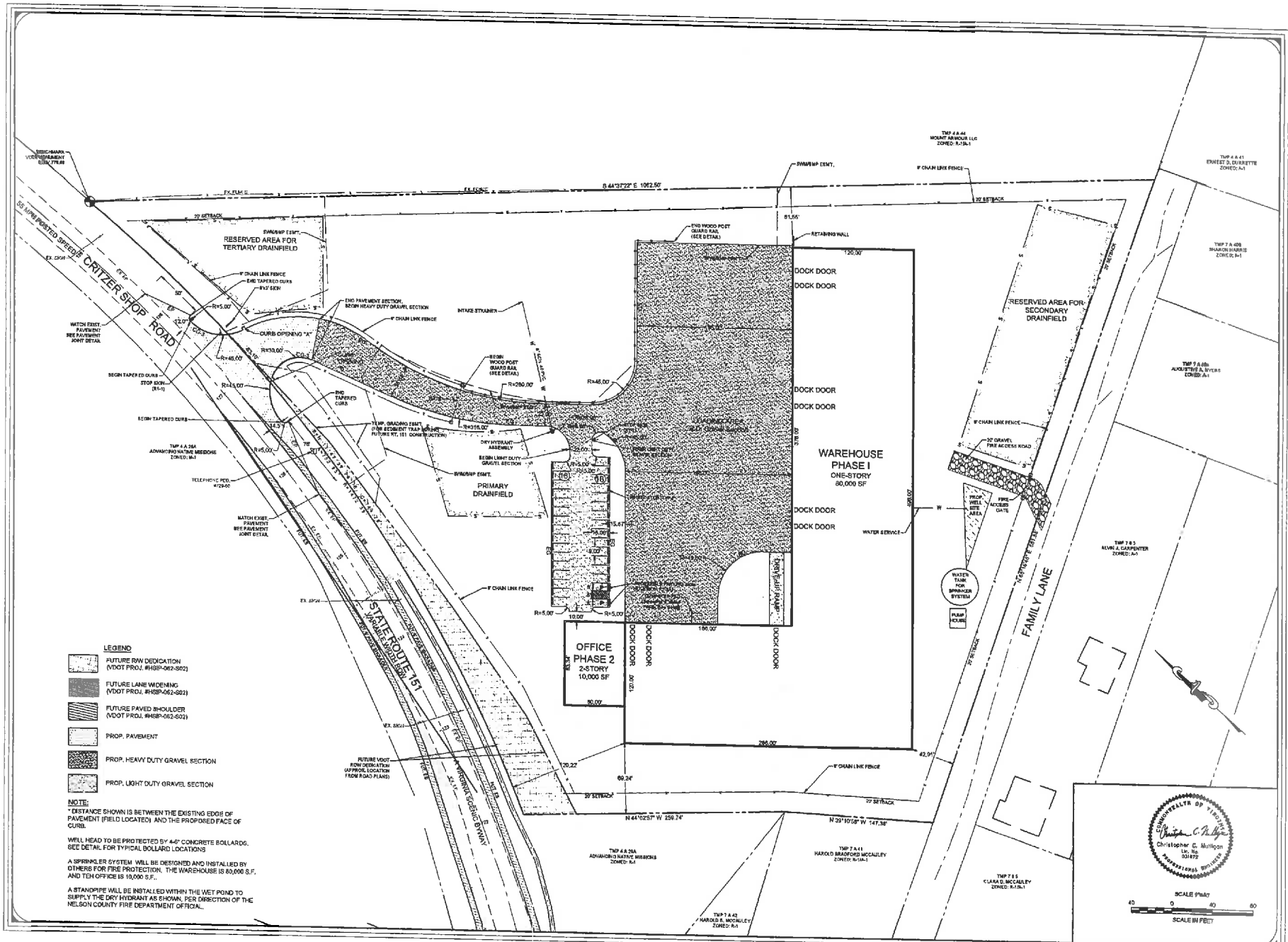
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

EXISTING CONDITIONS & SOIL PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8672

SHEET
2 of 19



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REVISIONS
12/19/2014 Comments
02/11/2015 Comments

DATE
Sept. 19, 2014

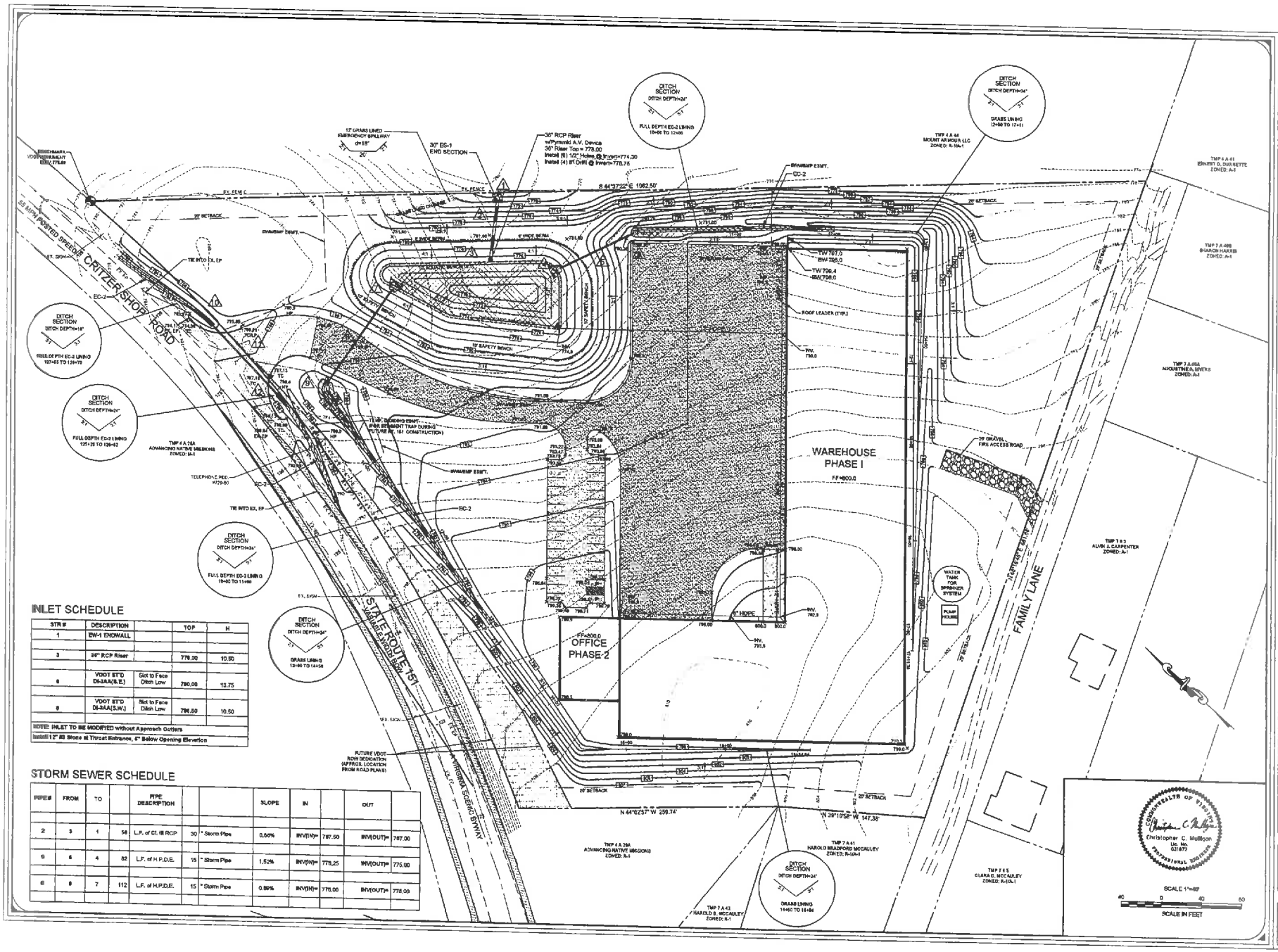
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

LAYOUT & UTILITY PLAN
ZENITH QUEST AFTON MOUNTAIN SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
3 of 18



INLET SCHEDULE

STR #	DESCRIPTION		TOP	H
1	EW-1 ENDWALL			
3	36" RCP Riser		778.00	10.50
6	VDOT ST'D DI-3A/B(S.E.)	Slot to Face Ditch Low	780.00	13.75
8	VDOT ST'D DI-3AA(S.W.)	Slot to Face Ditch Low	786.50	10.50

NOTE: INLET TO BE MODIFIED without Approach Gutters
Install 12" #3 Stone at Throat Entrance, 6" Below Opening Elevation

STORM SEWER SCHEDULE

PIPE#	FROM	TO		PIPE DESCRIPTION			SLOPE	IN		OUT	
2	3	1	58	L.F. of CI. III RCP	30	" Storm Pipe	0.50%	INV(IN)=	787.50	INV(OUT)=	787.00
5	6	4	82	L.F. of H.P.D.E.	15	" Storm Pipe	1.52%	INV(IN)=	778.25	INV(OUT)=	775.00
6	8	7	112	L.F. of H.P.D.E.	15	" Storm Pipe	0.89%	INV(IN)=	778.00	INV(OUT)=	778.00

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REVISIONS
12/18/2014 Comments
02/11/2015 Comments

DATE
Sept. 18, 2014

SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

GRADING PLAN
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 031677
PROFESSIONAL ENGINEER

FILE NUMBER
8672

SHEET
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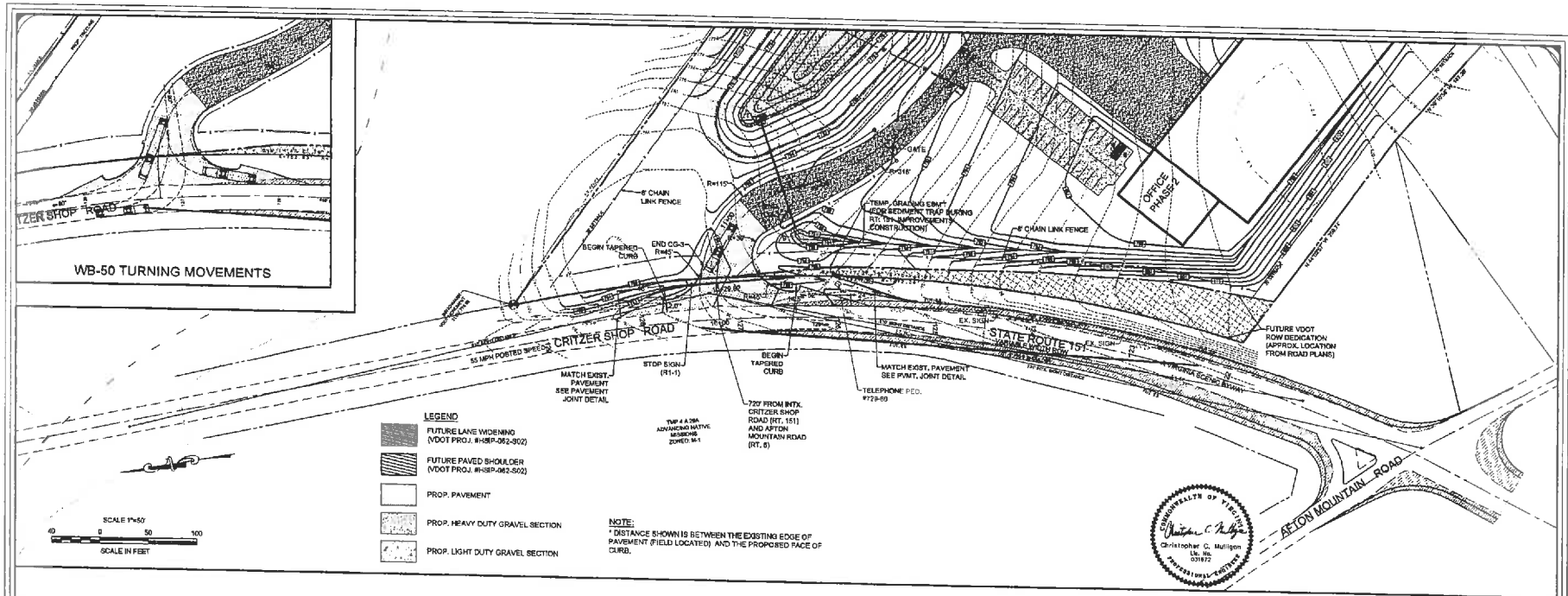

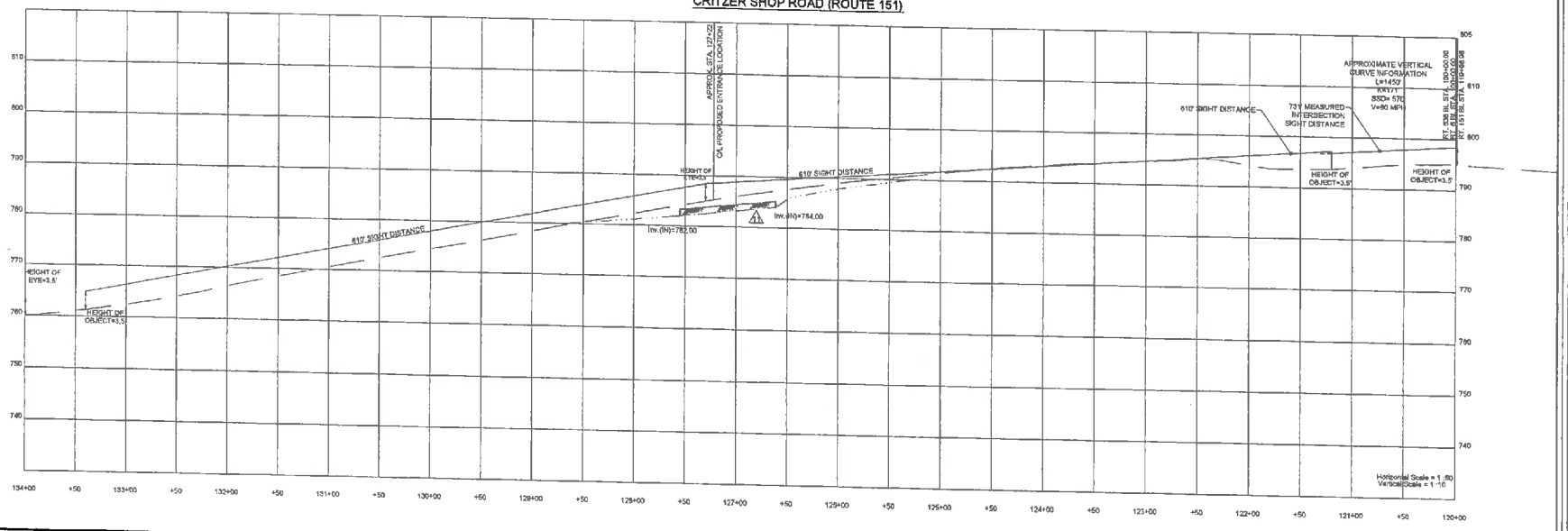

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REVISIONS
10/13/2014 Comments
02/11/2015 Comments

DATE
Sept. 16, 2014

SCALE
As Shown

CONTOUR INTERVAL
2 Feet

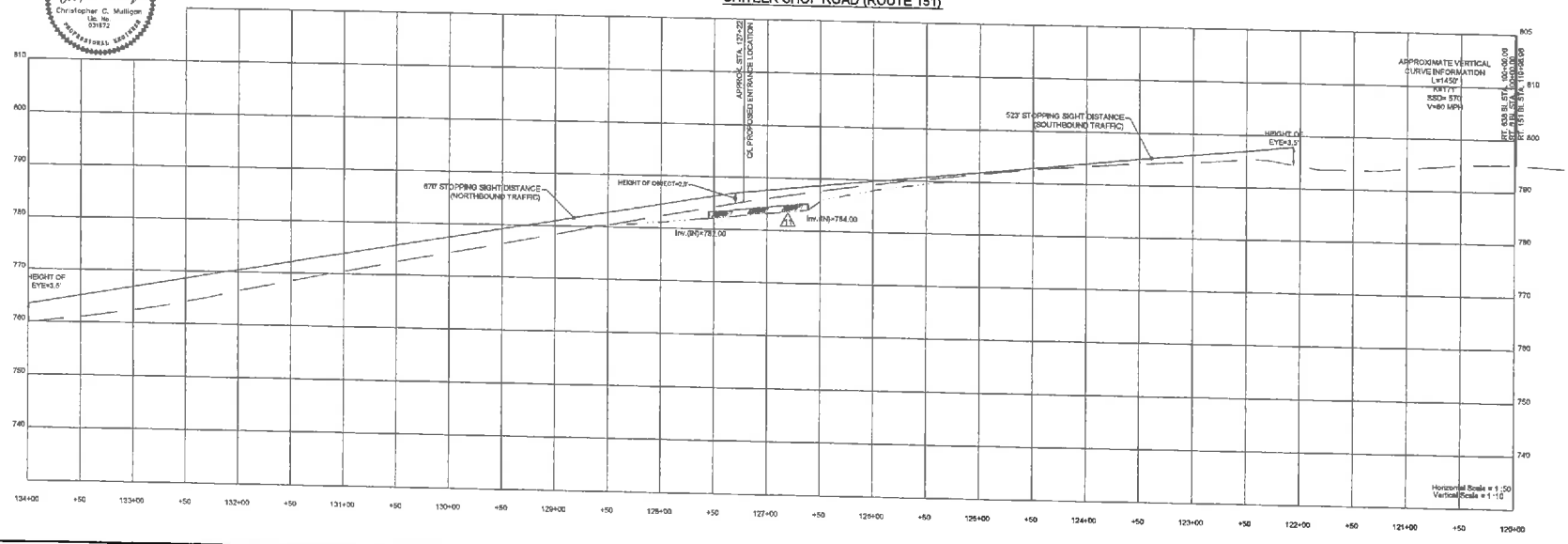
ENTRANCE PLAN & TRAFFIC CONTROL
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

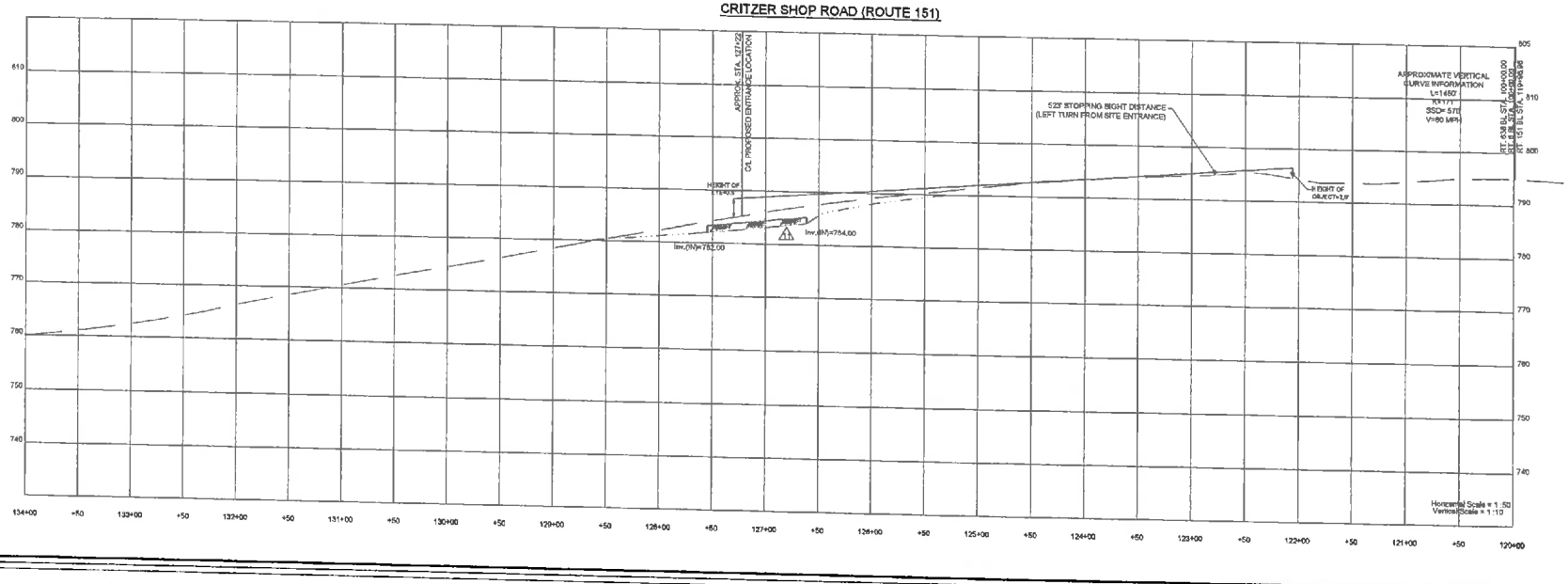
SHEET
5 of 19

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No 031872
PROFESSIONAL ENGINEER

CRITZER SHOP ROAD (ROUTE 151)



CRITZER SHOP ROAD (ROUTE 151)



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REVISIONS
12/19/2014
Comments

08/11/2015
Comments

DATE
Sept. 19, 2014

SCALE
As Shown

CONTOUR INTERVAL
2 Feet

ENTRANCE PLAN & TRAFFIC CONTROL

ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN

NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
5 of 19

LD-268
Rev. 3-93

Project	Zenith Quest, Strm. Str. 10 to 12	Plan Sheet No.		Designer	AMG	Sheet 1 of 1
		Rev. Date		Date	12/5/2014	

STATION: Culvert at Entrance

HYDROLOGICAL DATA:
D.A. = 1.09 AC.

AHW Controls
100 yr. Flood plain ______ elev. ______
Design AHW depth ______ elev. ______
Structures ______ elev. ______

freq. TWelev.

Shoulder elev. 785.46
Shoulder elev. 785.19
Skew · Cover 1.5 ft.
Inv. El. 784 · So= 2.08 · Inv. El. 782
Orig. Gr. Elev. · L= 96 · Orig. Gr. Elev.

DISCHARGES USED
Q 2 = 1.45 CFS
Q 10 = 2.01 CFS
Q 25 = 2.41 CFS
Q 100 = 2.96 CFS
Q ___ = ___ CFS

RISK ASSESSMENT
ADT ______
Detours Available ______, Length ______
Overtopping Stage ______
Flood Plain Management ______
Criteria and Significant Impact ______

CULVERT TYPE & SIZE	Q	O/S	HEADWATER COMPUTATIONS: INLET CONT. HW/D	HW	OUTLET CONTROL: Ke	dc	(dc+D)/2	ho	H	LSo	HW	CONT. HW. ELEV.	OUTLET VELOCITY C.M.	Smooth	End Treat.	COMMENTS
2 year	1.45		0.53	0.68								784.66		Smooth		S= 2.08% D= 15 in. L= 96 ft.
10 year	2.01		0.65	0.81								784.81		Smooth		S= 2.08% D= 15 in. L= 96 ft.
25 year	2.41		0.73	0.91								784.91		Smooth		S= 2.08% D= 15 in. L= 96 ft.
100 year	2.96		0.82	1.03								785.03		Smooth		S= 2.08% D= 15 in. L= 96 ft.

SUMMARY & RECOMMENDATIONS.

Design Flood Exceed. Prob. ______ Elev. ______
Overtop Flood Exceed. Prob. ______ Elev. ______
Base Flood 1% Exceed. Prob. ______ Elev. ______

ENTRANCE CULVERT STORM STR #11

CROSS SECTION @ STA. 125+62.8
NOT TO SCALE

CROSS SECTION @ STA. 126+42.7
NOT TO SCALE

COMMONWEALTH OF VIRGINIA
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SECTION 6G.08 WORK ON THE SHOULDER WITH MINOR ENCROACHMENT
(FROM 2011 VIRGINIA WORK AREA PROTECTION MANUAL)

SUPPORT:
01 CHAPTER 6D AND SECTIONS 6F.82 AND 6G.05 CONTAIN ADDITIONAL INFORMATION REGARDING THE STEPS TO FOLLOW WHEN PEDESTRIAN OR BICYCLE FACILITIES ARE AFFECTED BY THE WORKSITE.

GUIDANCE:
02 WHEN WORK TAKES UP PART OF A LANE, VEHICULAR TRAFFIC VOLUMES, VEHICLE MIX (BUSES, TRUCKS, CARS, MOTORCYCLES, AND BICYCLES), SPEED, AND CAPACITY SHOULD BE ANALYZED TO DETERMINE WHETHER THE AFFECTED LANE SHOULD BE CLOSED. UNLESS THE LANE ENCROACHMENT PERMITS A REMAINING LANE WIDTH OF 11 FEET, THE LANE SHOULD BE CLOSED.
03 TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMUM LANE WIDTH OF 11 FEET IS ADEQUATE.
OPTION:
04 A LANE WIDTH OF 10 FEET MAY BE USED FOR SHORT-TERM STATIONARY WORK ON LOW-VOLUME (LESS THAN 500 VPD), LOWSPEED (BELOW 45 MPH) ROADWAYS WHEN VEHICULAR TRAFFIC DOES NOT INCLUDE LONGER AND WIDER HEAVY COMMERCIAL VEHICLES.
05 A LANE WIDTH OF 10 FEET MAY BE USED FOR WORK ACTIVITIES LOCATED ON ENTRANCE AND EXIT RAMPS OF LIMITED ACCESS HIGHWAYS.
06 A LANE WIDTH OF 10 FEET MAY BE USED FOR INTERMEDIATE-TERM STATIONARY OPERATIONS SUCH AS MILLING/PAVING OPERATIONS WHERE THE RESTRICTION IS LIMITED TO THE AREAS WHERE THE WORK ACTIVITIES ARE OCCURRING BY MOVING THE CHANNELIZING DEVICES OUT AS WORK PROGRESSES AND THEN BACK ONCE THE WORK ACTIVITY HAS PAST.
07 FOR LONG-TERM STATIONARY OPERATIONS SUCH AS CONSTRUCTION PROJECTS, A TRAVEL LANE WIDTH OF NO LESS THAN 10 FEET MAY BE ALLOWED ONLY WHEN A TRAFFIC ENGINEERING STUDY, AS DEFINED IN PARAGRAPH 08, IS MADE AND DOCUMENTED BY THE REGIONAL TRAFFIC ENGINEER OR AUTHORITY WITH JURISDICTION OVER THE ROADWAY.

STANDARD:
08 A TRAFFIC ENGINEERING STUDY SHALL CONSIDER AS A MINIMUM, TRAFFIC VOLUMES, VEHICLE MIX, SPEED, CAPACITY, AND TYPE OF OPERATION. THIS ASSESSMENT MUST DEMONSTRATE THAT IF NOT ALLOWED, TRAFFIC DELAYS AND BACK-UPS WILL CREATE UNACCEPTABLE SAFETY FACTORS AND/OR ROAD NETWORK FAILURE.
SUPPORT:
09 FIGURE TTC-5 ILLUSTRATES A METHOD FOR HANDLING VEHICULAR TRAFFIC WHERE THE STATIONARY OR SHORT DURATION WORK SPACE ENCROACHES SLIGHTLY INTO THE TRAVELED WAY.
10 FIGURE TTC-10 ILLUSTRATES THE METHOD OF HANDLING VEHICULAR TRAFFIC WHERE NON-LICENSED VEHICLE OPERATIONS ENCROACH INTO THE TRAVELWAY OF A LIMITED ACCESS HIGHWAY.

STANDARD:
11 DUE TO OCCASIONAL TRAVEL BY OVER WIDTH VEHICLES, WORK ZONES WHICH REDUCE THE ONE WAY TRAVEL PATH OF ROADWAYS OR RAMPS TO WIDTHS LESS THAN 14'-0" WIDE MEASURED FROM EDGELINE TO EDGELINE SHALL BE SIGNED WITH A ROAD NARROWS (W5-1) OR RAMP NARROWS (W5-4) SIGN AND A SUPPLEMENTAL PLAQUE MOUNTED BELOW STATING THE ACTUAL WIDTH OF THE ROADWAY OR RAMP ROUNDED DOWN TO THE NEAREST FOOT OR HALF FOOT INCREMENT, SEE FIGURE TTC-38.
GUIDANCE:
12 THE ROAD NARROWS OR RAMP NARROWS SIGN ASSEMBLY SHOULD BE PLACED APPROXIMATELY 1000 FEET IN ADVANCE OF THE RESTRICTED LOCATION, AS WELL AS IN ADVANCE OF THE LAST ALTERNATE ROUTE PRIOR TO THE LANE WIDTH RESTRICTION.

Page 6H-16 · August 2011

Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)

NOTES

Standard
1. On divided highways having a median wider than 8', right and left sign assemblies shall be required. See Note 1, TTC-4 for addition sign information.

Guidance
2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:
4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:
5. A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating, or strobe light shall be parked 80' - 120' in advance of the first work crew.
6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.
7. Taper length (L) and channelizing device spacing shall be of the following:

Taper Length (L)				
Speed Limit (mph)	Lane Width (Feet)			
	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum taper lengths for Limited Access highways shall be 1000 feet.				
Shoulder Taper = ⅓ L Minimum				

Channelizing Device Spacing		
Location	Speed Limit (mph)	
	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'
* Spacing may be increased to this distance, but shall not exceed one access per ¼ mile.		

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

8. The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.
9. A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.
10. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

August 2011 · Page 6H-17

Shoulder Operation with Minor Encroachment
(Figure TTC-5.0)

SITE ENTRANCE PROFILE
Horizontal Scale = 1:50
Vertical Scale = 1:5

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REVISIONS
12/19/2014 Comments
08/11/2015 Comments

DATE
Sept. 19, 2014

SCALE
AS SHOWN

CONTOUR INTERVAL
2 Feet

ENTRANCE PROFILE & TRAFFIC CONTROL
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

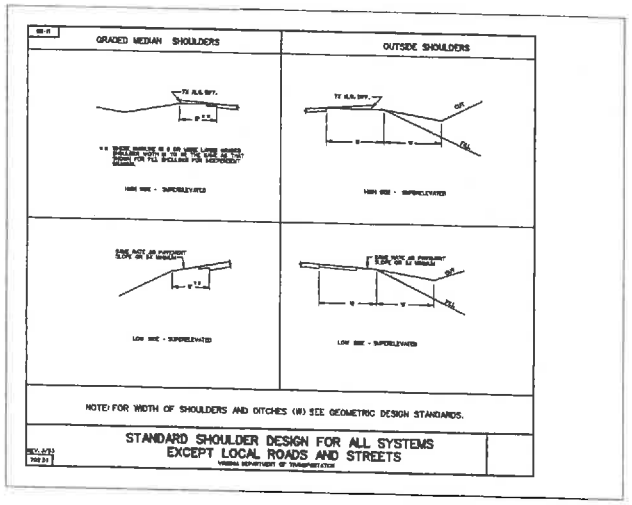
FILE NUMBER
8572

SHEET
6 of 19

SECTION 6G.10 WORK WITHIN THE TRAVELED WAY OF A TWO-LANE HIGHWAY

(FROM 2011 VIRGINIA WORK AREA PROTECTION MANUAL)

SUPPORT:
01 CHAPTER 6D AND SECTIONS 6F.62 AND 6G.06 CONTAIN ADDITIONAL INFORMATION REGARDING THE STEPS TO FOLLOW WHEN PEDESTRIAN OR BICYCLE FACILITIES ARE AFFECTED BY THE WORKSITE.
02 TECHNIQUES FOR CONTROLLING VEHICULAR TRAFFIC UNDER ONE-LANE, TWO-WAY CONDITIONS ARE DESCRIBED IN SECTIONS 6C.11, 6E.07, AND 6E.08.
OPTION:
03 FLAGGERS MAY BE USED AS SHOWN IN FIGURE TTC-23.
04 STOP/YIELD SIGN CONTROL MAY BE USED ON ROADS WITH LOW TRAFFIC VOLUMES (LESS THAN 500 VPD) AS NOTED IN FIGURE TTC-25. CONDITIONS ARE BASED ON AN ENGINEERING STUDY AND APPROVAL OF THE REGIONAL TRAFFIC ENGINEER.
FIGURE 6H-11 OF THE 2009 MUTCD MAY ALSO BE REFERENCED.
05 A TEMPORARY TRAFFIC CONTROL SIGNAL MAY BE USED AS SHOWN IN FIGURE TTC-26.



Typical Traffic Control
Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)
NOTES

Guidance:
1. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.*
2. *Cone should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-1. Generally speaking, motorists should have a clear line of sight from the approach flagger control sign to the flagger.*

Option:
3. Where Right-of-Way or geographic conditions prevent the use of 48" x 48" signs, 36" x 36" signs may be used.

Standard:
4. Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic (see Table 6H-3 on Page 6H-8).
5. All flaggers shall be state certified and have their certification card in their possession when performing flagging duties (see Section 6E.01, Qualifications for Flaggers).
6. Cone spacing shall be at the following:

Location	Posted Speed Limit (mph)	
	0 – 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'

7. A shadow vehicle with at least one high intensity amber rotating, oscillating, or strobe light shall be parked 80'-120' in advance of the first work crew.

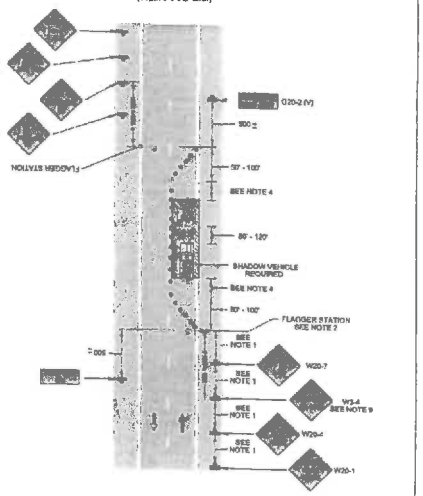
Option:
8. A supplemental flagger may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or crossed traffic.

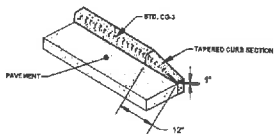
Guidance:
9. *If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign, then the signs should be repositioned as greater distances.*
10. *When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-35 for additional information on highway-rail crossings).*

Standard:
11. At night, flagger stations shall be illuminated, except in emergencies (see Section 6F.08).

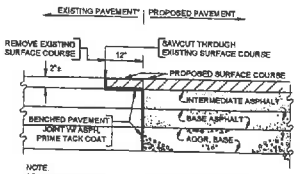
Option:
12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

Lane Closure on a Two-Lane Roadway Using Flaggers
(Figure TTC-23.0)





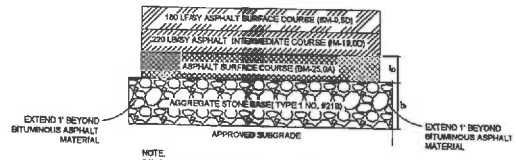
TAPERED CG-3 CURB
NOT TO SCALE



NOTE
* THE BOUNDARY BETWEEN THE EXISTING AND PROPOSED PAVEMENT IS THE PAINTED EDGE LINE UNLESS OTHERWISE SPECIFIED AS THE EDGE OF PAVEMENT OR THE EDGE OF THE TRAVEL LANE.

PROPOSED PAVEMENT MUST TIE IN WITH EXISTING PAVEMENT

PAVEMENT JOINT DETAIL
NOT TO SCALE



NOTE.
PAVEMENT SECTION DESIGN TAKEN FROM VDOT PLANS

ALL PAVING WITHIN THE R/W SHALL MATCH THIS SECTION

EXTEND VDOT PAVEMENT SECTION TO STA. 10+53.7 (15.0' LT AND 10+53.7 (40.2' RT) OF COMMERCIAL ENTRANCE

PAVEMENT SECTION IN VDOT ROW
NOT TO SCALE

COMMONWEALTH OF VIRGINIA
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REVISIONS
08/11/2015 Comments

DATE
Sept. 18, 2014

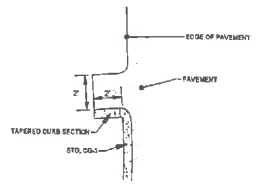
SCALE
AS SHOWN

CONTOUR INTERVAL
2 Feet

ENTRANCE DETAILS & TRAFFIC CONTROL
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
6A of 18



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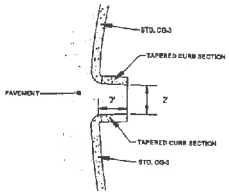

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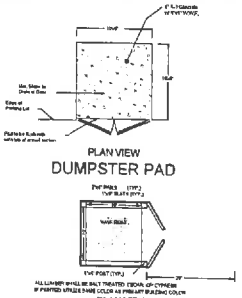


DITCH COMPUTATIONS (VDOT LD-268)

STATION TO STATION		FLOW	AREAS C-1	AREAS C-2	AREAS C-3	CA INCR.	CA ACC.	Tc	I-2	Q-2	OUT or FILL	SLOPE FT/FT	FLOW CFS	EARTH n=.035 VEL.	EARTH n=.035 Qm	PROTECTIVE LINING n=.05 VEL.	PROTECTIVE LINING n=.05 DEP.	PROTECTIVE LINING n=.05 Qm	PROTECTIVE LINING n=.015 VEL.	PROTECTIVE LINING n=.015 DEP.	PROTECTIVE LINING n=.015 Qm	I-10	Q-10	DEP.	REMARKS
NORTH																									
16+00	15+00	↓		0.34		0.17	0.17	5.00	5.18	0.88	CUT	0.0100		1.50								5.87	1.13	5"	
15+00	14+00	↓		0.28		0.14	0.31	5.01	5.18	1.60	CUT	0.0100		1.74								6.86	2.06	6"	
14+00	13+00	↓		0.28		0.13	0.44	5.03	5.17	2.28	CUT	0.0100		1.99								6.85	2.93	7"	
13+00	12+00	↓	0.11			0.04	0.48	5.05	5.17	2.47	CUT	0.0100		1.94								6.85	3.19	7"	
12+00	11+00	↓	0.19			0.07	0.55	5.07	5.16	2.81	CUT	0.0400		3.37		2.58						6.84	3.82	6"	
11+00	10+00	↓	0.12			0.04	0.59	5.10	5.16	3.02	CUT	0.0400		3.43		2.63						6.83	3.89	6"	
		↓	0.25			0.09	0.67	5.14	5.14	3.47	CUT	0.0400		3.55		2.72						6.82	4.68	6"	
SOUTH																									
17+81	16+00	↓			0.41	0.29	0.29	5.00	5.18	1.49	CUT	0.0100		1.77								6.87	1.91	6"	
16+00	15+00	↓			0.21	0.15	0.43	5.02	5.17	2.25	CUT	0.0100		1.96								6.86	2.89	7"	
15+00	14+00	↓			0.19	0.13	0.57	5.04	5.17	2.93	FW	0.0100		2.09								6.85	3.77	8"	
14+00	13+00	↓			0.19	0.13	0.70	5.06	5.16	3.61	FW	0.0100		2.21								6.85	4.65	8"	
13+00	12+00	↓	0.05			0.02	0.72	5.08	5.16	3.70	FW	0.0120		2.38								6.84	4.76	8"	
12+00	11+00	↓	0.05			0.02	0.74	5.10	5.15	3.79	FW	0.0250		3.15		2.33						6.83	4.87	7"	
11+00	10+00	↓	0.05			0.02	0.76	5.14	5.14	3.87	FW	0.0360		3.63		2.69						6.82	4.96	7"	
ALONG RT. 161																									
120+00	124+00	↓			0.81		0.41	0.41	5.00	5.18	2.10		0.0070		1.63								6.67	2.70	7"	Existing Ditch
124+00	126+00	↓			0.10		0.05	0.46	5.02	5.18	2.35		0.0175		2.37								6.66	3.63	8"	
126+00	126+00	↓			0.09		0.05	0.50	5.04	5.17	2.58	FW	0.0322		3.04		2.33						6.65	3.33	8"	
126+00	126+82	↓			0.00		0.05	0.55	5.07	5.16	2.81	FW	0.0400		3.37		2.58						6.64	3.82	8"	Str. 12
127+85	126+00	↓	0.05			0.03	0.57	12.00	3.82	2.19	CUT	0.0300		2.64		2.17						5.00	2.86	5"	Outfall Str. 10
126+00	129+00	↓	0.09			0.05	0.62	12.05	3.81	2.36		0.0600		2.97								5.00	3.09	5"	Existing Ditch
129+00	130+00	↓	0.04			0.02	0.64	12.05	3.81	2.43		0.0600		3.04								4.99	3.18	5"	Existing Ditch
ES Dimension Channel																									
	SB	↓	3.00			1.05	1.05	6.00	4.48	4.70	FW	0.0120		2.52		1.87						5.81	8.10	9"	

STORM SEWER COMPUTATIONS (VDOT LD-229)

FROM POINT	TO POINT	DA (ACRES)	C	CA INCR.	CA ACCUM.	TC MINUTES	RAINFALL I=IN/HR	RUN-OFF CFS	INVERT UPPER	INVERT LOWER	LENGTH FEET	SLOPE %	DIAM. INCHES	CAPACITY CFS	VELOCITY F.P.S.	FLOW TIME MIN.
6	4	1.16	0.70	0.81	0.81	5.14	6.82	5.37	776.25	775.00	82	1.52%	15	7.97	6.69	0.20
9	7	1.09	0.46	0.50	0.50	5.14	6.82	3.32	776.00	775.00	112	0.89%	15	6.10	5.06	0.37

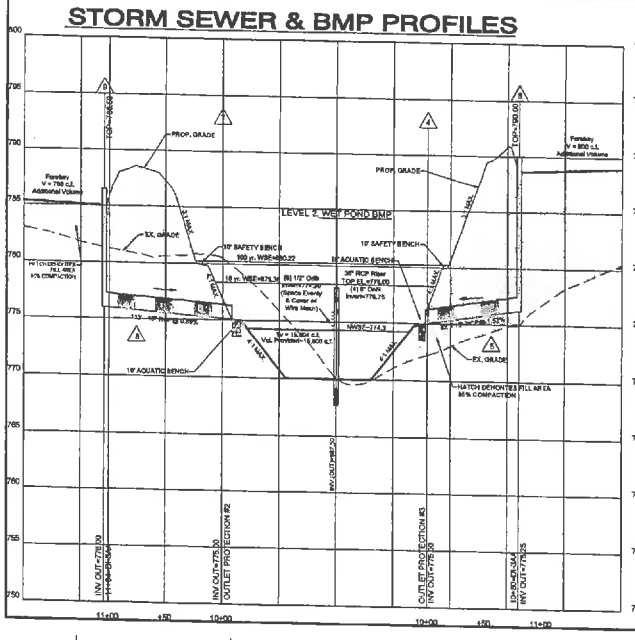
INLET COMPUTATIONS - @ 4" PER HOUR (VDOT LD-204)

INLET	L	STATION	DA	DA SUITE	C	C SUITE	CA	Tc (min)	CA SUITE	INTENSITY (in/hr)	Qmax CFS	Qact CFS	GI SUITE FLOW	S SUITE SLOPE	Sx CROSS SLOPE	SUITE SPREAD	W (FT)	WT	Sw	Sw/Sx +	Sx	n	Qmax = WT(T/W)	Sx/Sw + Sw*Sx	Le (INTAKE) Perf. LENGTH	L / Lt	SUITE FLOW DEPTH	S (in/ft)	h FT	h SAG	Sx (in/ft) a GRADE	Depth / h FT	Qb CARRYOVER	SPREAD AT GAS (FT)	SPREAD REMARKS
8	2.5		1.16	1.16	0.70	0.70	0.81		0.81	4.0	3.25		3.25	0.025	0.05	3.5	2	0.566	0.0833	1.7	0.94	0.8	0.033	0.128	13.9	0.2	0.24	0.301	0.46	3.80		0.38		7.54	1" Bump
9	2.5		1.09	1.09	0.46	0.46	0.50		0.50	4.0	2.01		2.01	0.025	0.05	3.0	2	0.678	0.0833	1.7	0.98	0.8	0.033	0.130	11.2	0.2	0.21	0.364	0.46	3.29		0.27		5.47	1" Bump

INLET COMPUTATIONS - @ 6.5" PER HOUR (VDOT LD-204)

INLET	L	STATION	DA	DA SUITE	C	C SUITE	CA	Tc (min)	CA SUITE	INTENSITY (in/hr)	Qmax CFS	Qact CFS	GI SUITE FLOW	S SUITE SLOPE	Sx CROSS SLOPE	SUITE SPREAD	W (FT)	WT	Sw	Sw/Sx +	Sx	n	Qmax = WT(T/W)	Sx/Sw + Sw*Sx	Le (INTAKE) Perf. LENGTH	L / Lt	SUITE FLOW DEPTH	S (in/ft)	h FT	h SAG	Sx (in/ft) a GRADE	Depth / h FT	Qb CARRYOVER	SPREAD AT GAS (FT)	SPREAD REMARKS
8	2.5		1.16	0.87	0.70	0.70	0.81		0.81	6.5	5.26		3.86	0.025	0.05	3.8	2	0.525	0.0833	1.7	0.80	0.8	0.033	0.125	17.3	0.1	0.26	0.245	0.46	4.53		0.52		13.42	Forebay
9	2.5		1.09	0.82	0.46	0.46	0.50		0.36	6.5	3.26		2.44	0.025	0.05	3.2	2	0.629	0.0833	1.7	0.92	0.8	0.033	0.127	14.0	0.2	0.23	0.298	0.46	3.86		0.38		7.88	Forebay

STORM SEWER & BMP PROFILES



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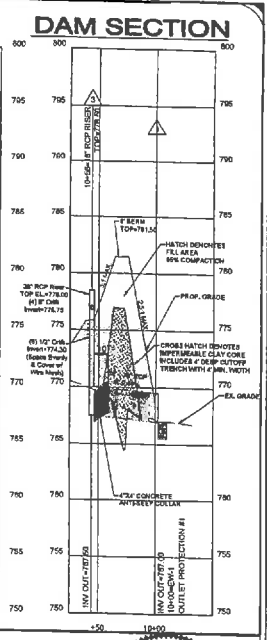

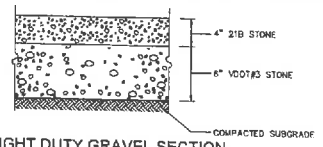

LIGHT DUTY GRAVEL SECTION
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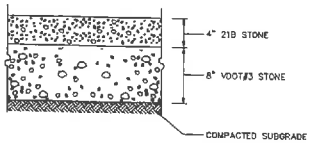

HEAVY DUTY GRAVEL SECTION
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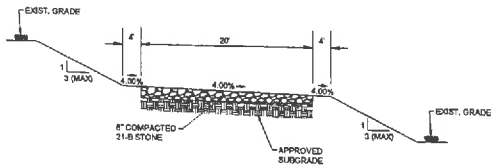

FIRE ACCESS ROAD
NOT TO SCALE

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
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PROFESSIONAL ENGINEER

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PHONE 434-977-0205 - FAX 434-296-8223 - EMAIL INFO@RGADUBUSH.COM

REVISIONS
12/16/2014 Comments
02/11/2015 Comments

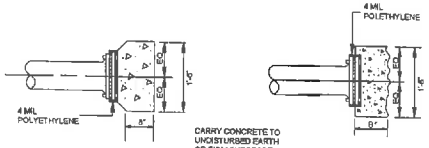
DATE
Sept. 15, 2014

SCALE
HORZ. 1" = 50'
VERT. 1" = 5'

CONTOUR INTERVAL
N/A

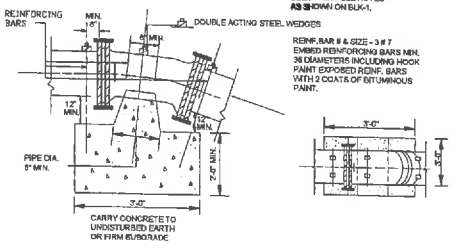
PROFILES, COMPUTATIONS & DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572



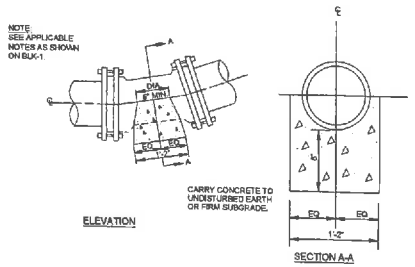
NOTE
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI

HYDRANT BLOCKING DETAIL
NOT TO SCALE



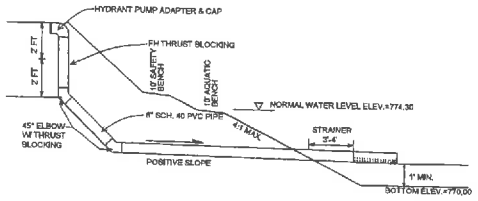
NOTE
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI

UPPER VERTICAL BEND BLOCKING DETAIL

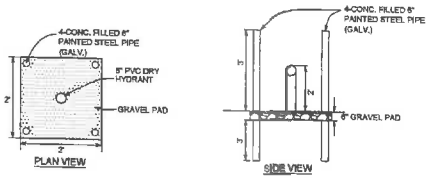


NOTE
BLOCKING BASED ON PRESSURE OF 150 PSI AND ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. CONCRETE TO BE 3000 PSI

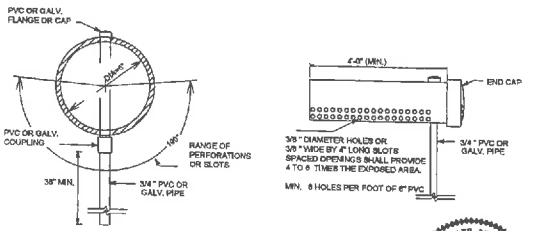
LOWER VERTICAL BEND BLOCKING DETAIL



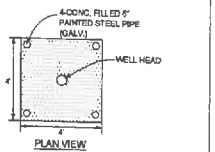
DRY HYDRANT DETAIL
NOT TO SCALE



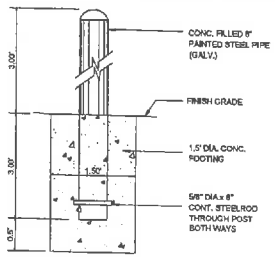
DRY HYDRANT PROTECTIVE BASE PAD DETAILS
NOT TO SCALE



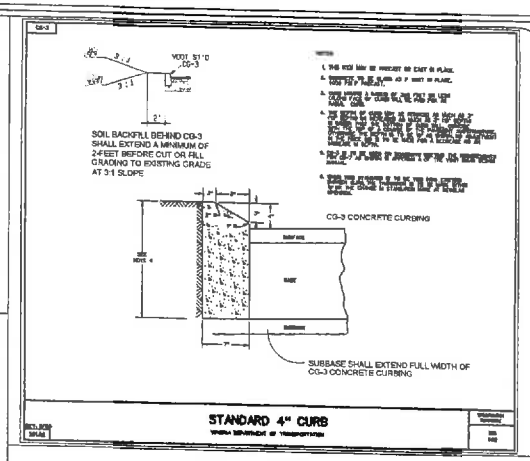
STRAINER AND PIPE SUPPORT DETAILS
NOT TO SCALE

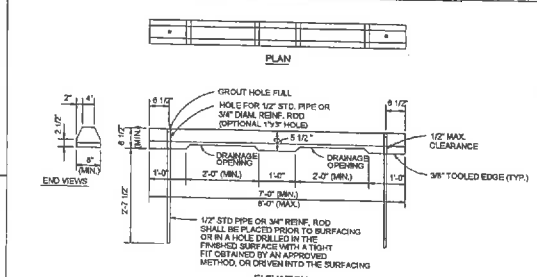


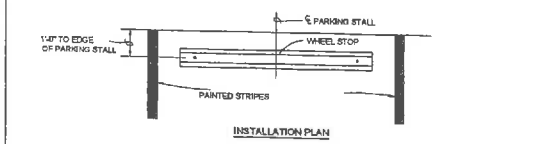
WELL HEAD PROTECTION BOLLARD LOCATION DETAIL
NOT TO SCALE



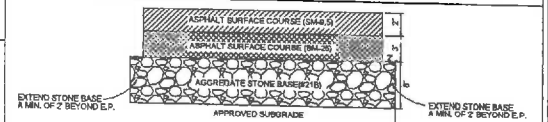
TYPICAL BOLLARD DETAIL
NOT TO SCALE





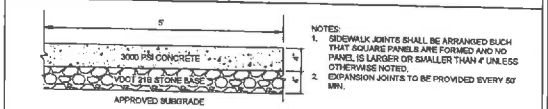


PRECAST CONCRETE WHEEL STOP
NOT TO SCALE



NOTE:
BEGIN HEAVY DUTY PAVEMENT SECTION AT STA. 10+53.7 (15.0' L) AND 10+83.7 (40.2' R) OF COMMERCIAL ENTRANCE

HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE



NOTES:
1. SIDEWALK JOINTS SHALL BE ARRANGED SUCH THAT SQUARE PANELS ARE FORMED AND NO PANEL IS LARGER OR SMALLER THAN 4' UNLESS OTHERWISE NOTED.
2. EXPANSION JOINTS TO BE PROVIDED EVERY 50' MIN.

CONCRETE SIDEWALK
NOT TO SCALE

ROUDABUSH, GALE & ASSOCIATES, INC.
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A PROFESSIONAL CORPORATION
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PHONE 434-977-0205 - FAX 434-296-2820 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/19/2014 Comments
08/11/2015 Comments

DATE
Sept. 19, 2014

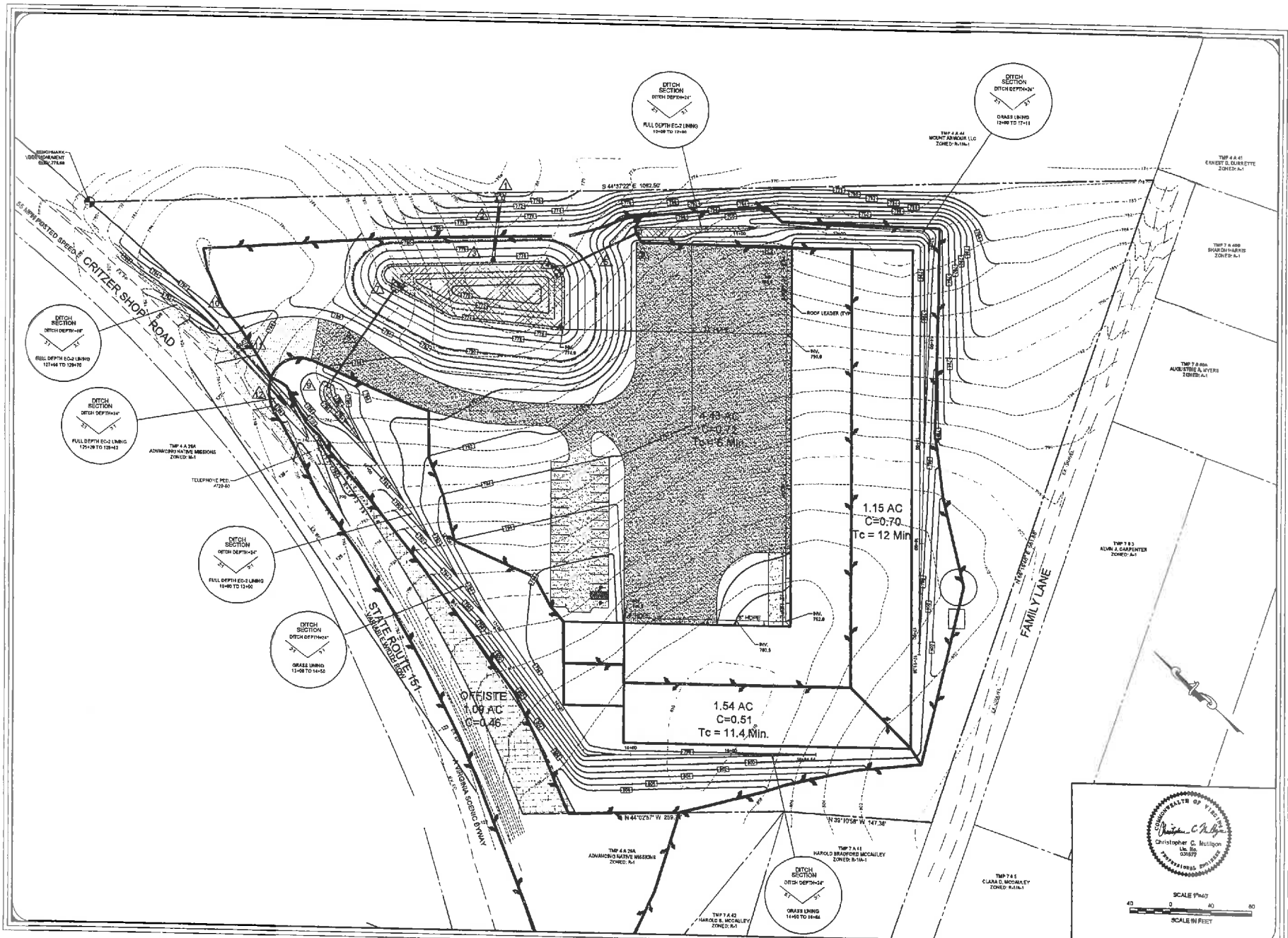
SCALE
N/A

CONTOUR INTERVAL
N/A

TYPICAL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
6572

SHEET
8 of 18



ROUDABUSH, GALE & ASSOCIATES, INC.
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REVISIONS
12/18/2014
Comments
08/11/2015
Comments

DATE
Sept. 19, 2014

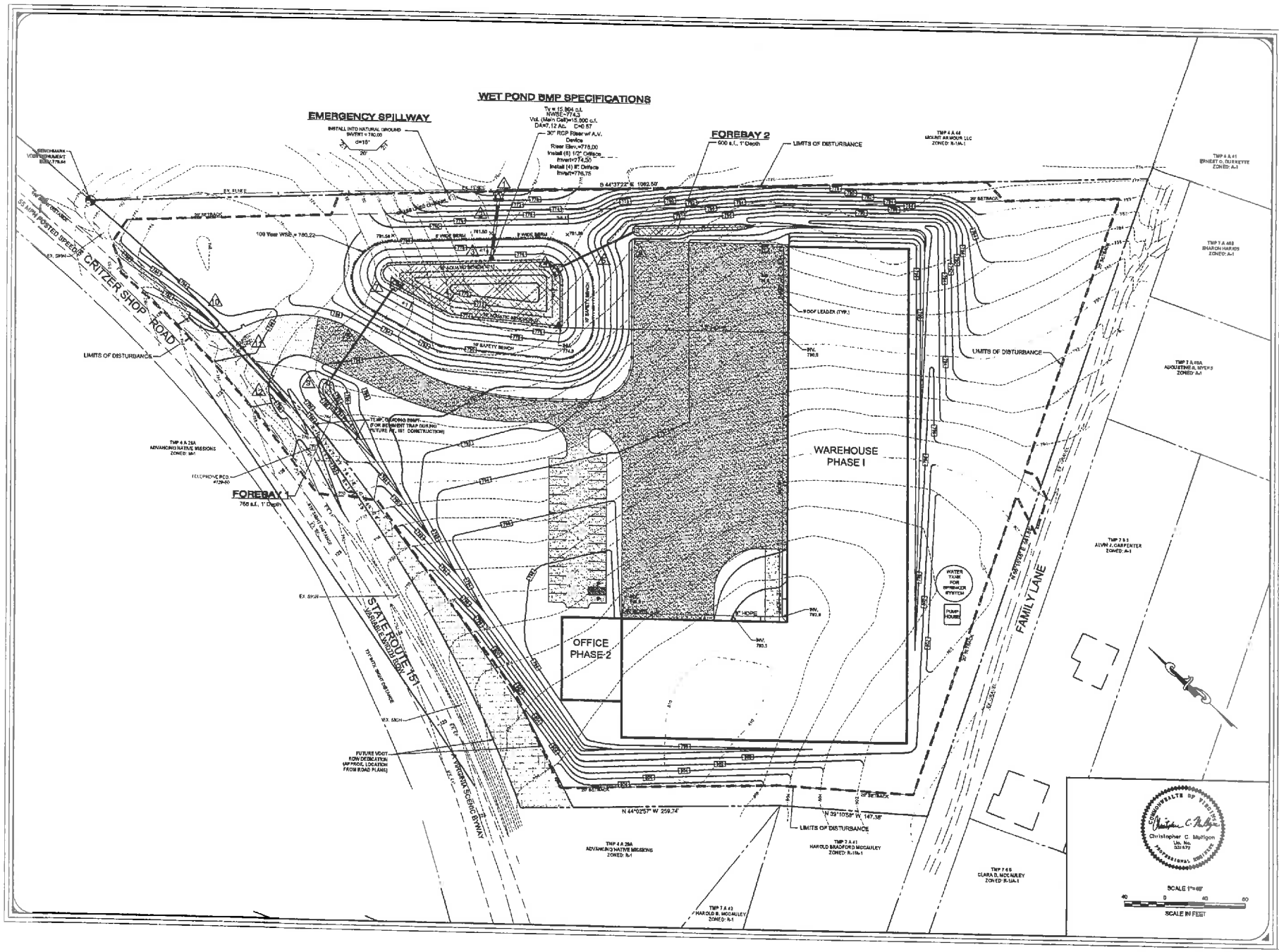
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

DRAINAGE MAP
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
9 of 19



ROUDABUSH, GALE & ASSOCIATES, INC.
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REVISIONS
12/18/2014
Comments

DATE
SEPT. 19, 2014

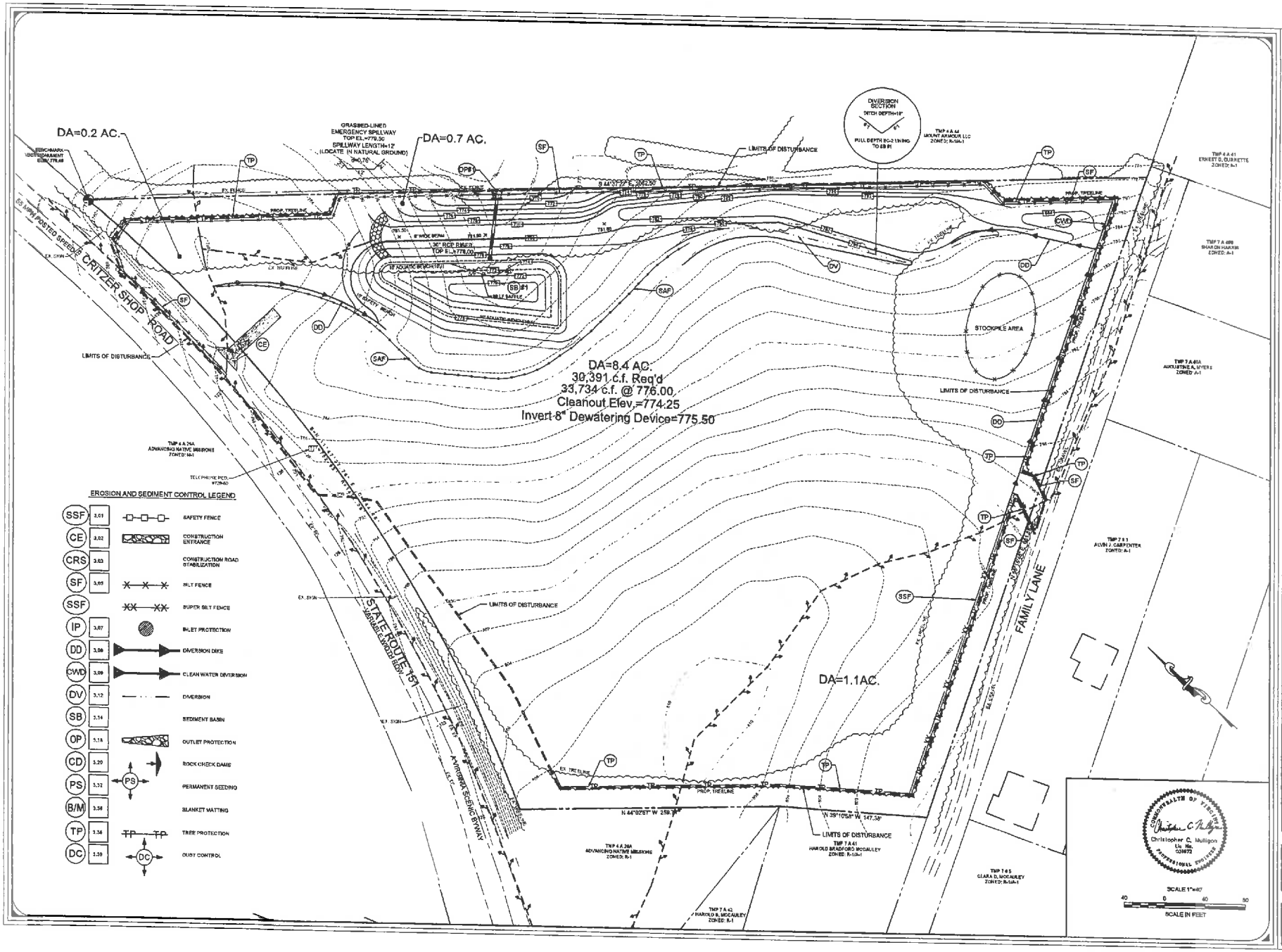
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

SWM/BMP PLAN
ZENITH QUEST
AFTON MOUNTAIN
SWM & BMP PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
10 of 19



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REVISIONS
12/19/2014
Comments

DATE
Sept. 19, 2014

SCALE
1" = 40'

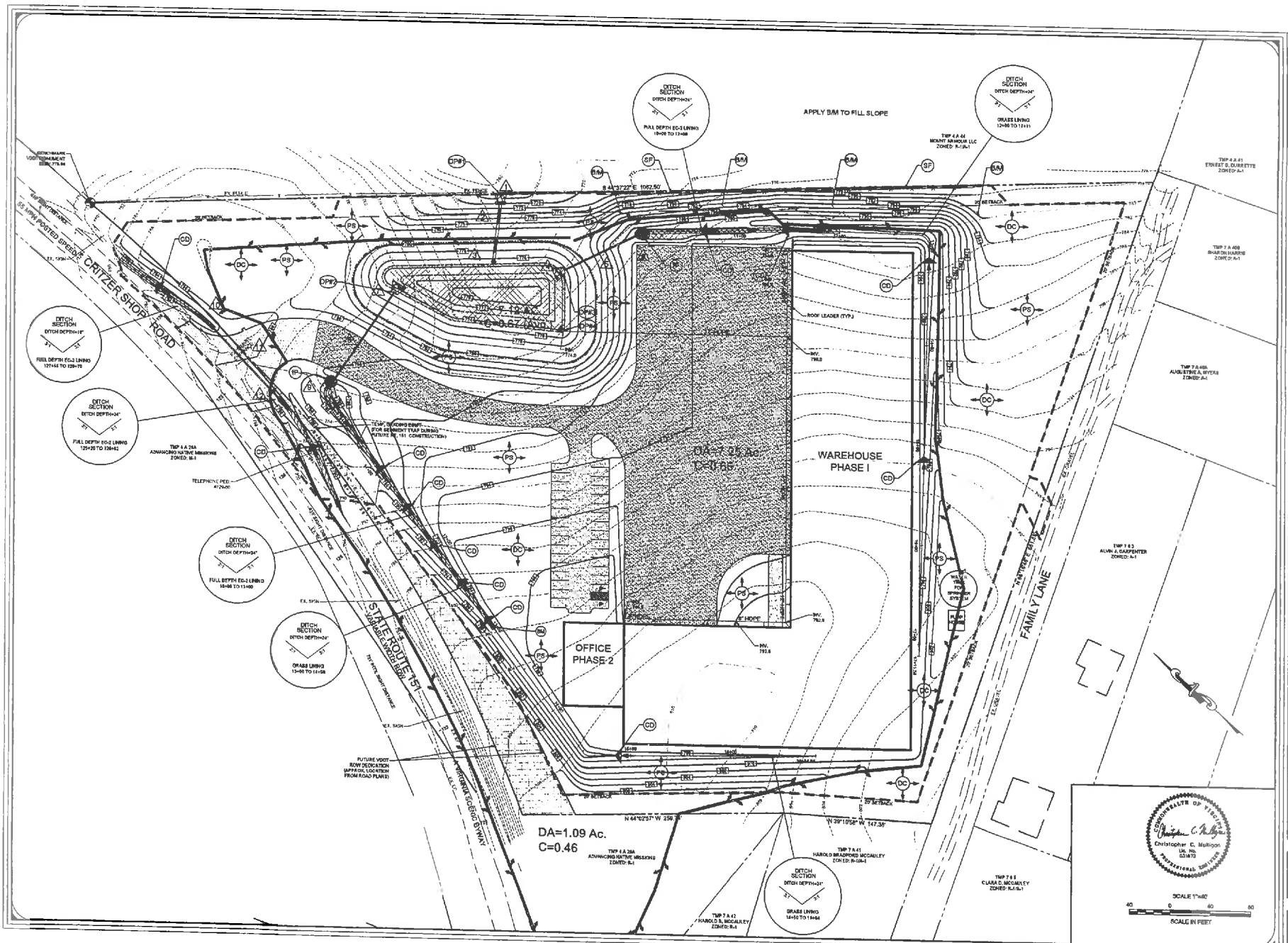
CONTOUR INTERVAL
2 Feet

EROSION CONTROL PLAN - PHASE 1
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
9572

SHEET
11 of 19

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 029972
PROFESSIONAL ENGINEER



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REVISIONS
10/18/2014
Comments

DATE
Sept. 19, 2014

SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

EROSION CONTROL PLAN - PHASE 2
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
12 of 19

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS (Section 4VAC50-30-40)

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

CONTRACTOR SHALL ESTABLISH A STABILIZED SITE, AND NOT ALLOW ANY SEDIMENT TO EXIT THE PROJECT SITE.

2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

SOIL STOCKPILES TO BE LOCATED ONSITE. EXCESS MATERIAL NOT USED FOR ON SITE GRADING TO BE HAULED TO AN APPROVED SITE WITH ADEQUATE EROSION CONTROL PROTECTION.

3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

CONTRACTOR SHALL ESTABLISH A VEGETATIVE COVER ON ALL DENUDED AREAS.

4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.

CONTRACTOR SHALL INSTALL PERIMETER SEDIMENT BARRIERS TO TREAT STORM RUNOFF AS THE FIRST STEP OF CLEARING AND GRADING.

5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

CONTRACTOR SHALL STABILIZE ALL EARTHEN EROSION STRUCTURES IMMEDIATELY AFTER INSTALLATION.

6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.

THE SEDIMENT BASIN IS SIZED FOR THE CONTRIBUTING DRAINAGE AREA.

A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE (3.0) ACRES. SEE SIZING TABLE FOR DIMENSIONS.

B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.

THE SEDIMENT BASIN IS SIZED BASED ON BARE SOIL CONDITIONS FOR THE 25-YEAR STORM.

7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

THIS APPLIES TO THE AREAS GRADED DURING SITE IMPROVEMENTS.

8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

THERE ARE NO CRITICAL AREAS ONSITE.

9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

THERE ARE NO CRITICAL AREAS ONSITE.

10. ALL STORM SEWER INLETS THAT ARE MADE OPERATIONAL DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

INLET SHALL BE PROTECTED WITH INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING THE PIPES.

11. BEFORE NEWLY CONSTRUCTED STORM WATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

CONTRACTOR TO INSTALL THE APPROPRIATE OUTLET PROTECTION AND PERMANENT CHANNEL LINING PRIOR TO CHANNELS OR PIPES ARE MADE OPERATIONAL.

12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

THERE ARE NO CRITICAL AREAS ONSITE.

13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIAL SHALL BE PROVIDED.

THERE ARE NO CRITICAL AREAS ONSITE.

14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

THERE ARE NO CRITICAL AREAS ONSITE.

15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.

THERE ARE NO CRITICAL AREAS ONSITE.

16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
   - A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
   - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
   - C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
   - D. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
   - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
   - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

THIS APPLIES TO ALL UTILITY INSTALLATION OPERATIONS INCLUDING WATER, SEWER, POWER, CABLE OR GAS.

17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.

CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ADJACENT ROADS CLEAN FROM SOIL BUILD-UP.

18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

CONTRACTOR SHALL STABILIZE SITE, AND OBTAIN INSPECTOR APPROVAL PRIOR TO REMOVING ANY EROSION CONTROL MEASURES.

19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORM WATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA: ALL CONCENTRATED RUN-OFF IS DIRECTED TO DRAINAGE DITCHES OR INLETS AND OUTFALLS INTO A TEMPORARY SEDIMENT TRAP. THERE IS ALSO AN EXISTING WET POND LOCATED AT THE TOE OF THE CONVEYANCE CHANNEL.
   - A. CONCENTRATED STORM WATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

   ALL RUN-OFF IS CONVEYED TO THE SAME ORIGINAL OUTFALL LOCATION.
   - B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
     - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION;

     OR
     - (2) (a) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORM WATER WILL NOT OVERTOP THE CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS; AND

THE CHANGES IN RUN-OFF ASSOCIATED WITH THE DEVELOPMENT ARE QUANTIFIED IN THE HYDROLOGIC ANALYSIS AND SUMMARIZED IN THE NARRATIVE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN REVIEWING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN REVIEWING AUTHORITY.

ES-7: ALL DISTURBED ARES ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION HAS BEEN ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION AND SEDIMENT CONTROL NARRATIVE

PRIOR TO CONSTRUCTION

1. CONTRACTOR SHALL OBTAIN PERMITS TO WORK WITHIN STATE RIGHT-OF-WAY (VDOT LAND-USE PERMIT).
2. CONTRACTOR SHALL COORDINATE WITH OWNER TO OBTAIN VSMP PERMITS, AS REQUIRED BY THE STATE DEPARTMENT OF CONSERVATION AND RECREATION (DEQ).
3. CONTRACTOR SHALL OBTAIN LAND DISTURBANCE PERMIT FROM THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO BEGINNING CONSTRUCTION. A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, THE CERTIFIED LAND DISTURBER, AND THE ENVIRONMENTAL INSPECTOR MAY ALSO BE REQUIRED. ALLOW 72 HOURS FOR COORDINATION AND SCHEDULING OF PRE-CONSTRUCTION MEETING.

PROJECT DESCRIPTION

THE PROJECT INVOLVES THE CONSTRUCTION OF AN 80,000 SF WAREHOUSE AND 10,000 SF OFFICE BUILDING ALONG WITH THE ASSOCIATED INFRASTRUCTURE. THE INFRASTRUCTURE INCLUDES AN ACCESS DRIVE, PARKING AREA, LOADING AREA, SEPTIC DRAIN FIELD, STORM SEWER, STORMWATER MANAGEMENT POND AND OTHER ASSOCIATED UTILITIES. APPROXIMATELY 9.4 ACRES WILL BE DISTURBED DURING THE CONSTRUCTION OF THIS PROJECT.

EXISTING SITE CONDITIONS

THE PROJECT SITE IS TEN ACRES LOCATED ON THE EAST SIDE OF CRIZTER SHOP ROAD (ROUTE 151) APPROXIMATELY 500 FEET NORTH OF THE AFTON MOUNTAIN ROAD (ROUTE 638) INTERSECTION. THE PROJECT SITE IS CURRENTLY COVERED BY A LARGE MEADOW WITH A FEW LONE TREES AND A FEW THICKETS OF TREES. THREE OF THE FOUR PROPERTY LINES ARE WOODED; THE NORTHEAST, THE SOUTHEAST AND SOUTHWEST PROPERTY LINES.

CRITICAL AREAS

THERE ARE NO CRITICAL AREAS WITHIN THE PROJECT AREA AND THE LAND DISTURBANCE WILL BE PROTECTED BY A TEMPORARY SEDIMENT BASIN, LATER CONVERTED TO A PERMANENT WET POND/BMP FACILITY.

ADJACENT AREAS

THE PROPERTY TO THE NORTHEST IS CURRENTLY VACANT WITH MEADOWS LOCATED BEYOND THE TREE'D FENCE ROW THAT SEPARATES THE PROPERTIES. FAMILY LANE IS LOCATED ON THE SOUTHEAST PROPERTY LINE. THERE ARE THREE RESIDENTIAL PROPERTIES THAT ACCESS FAMILY LANE THAT ARE DIRECTLY ADJACENT TO THE PROJECT SITE. TO THE SOUTHEAST, THERE ARE TWO RESIDENTIAL PROPERTIES AND A VACANT PROPERTY. THE SITE IS BOUND TO THE NORTHWEST BY CRITZER SHOP ROAD (ROUTE 151). THE PROPERTY ACROSS CRITZER SHOP ROAD IS A NON-PROFIT WAREHOUSE.

OFF-SITE AREAS

THERE IS APPROX. 1.05 AC. OF RUNOFF ALONG CRITZER SHOP ROAD THAT COMBINES WITH THE SITE'S DEVELOPED RUNOFF AND SHALL BE CONTROLLED VIA THE SEDIMENT BASIN.

SOILS

22B—HAYESVILLE LOAM (2 TO 7 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 5 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM. HAZARD OF EROSION IS SLIGHT. NO FLOODING HAZARD. SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

22C—HAYESVILLE LOAM (7 TO 15 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 6 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM. HAZARD OF EROSION IS SLIGHT. NO FLOODING HAZARD. SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

22D—HAYESVILLE LOAM (15 TO 25 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 8 INCHES THICK. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 40 INCHES AND RED CLAY LOAM TO APPROXIMATELY 57 INCHES. SUBSTRATUM IS ABOUT 5 INCHES THICK AND IS RED LOAM WITH REDDISH YELLOW MOTTLES.

PERMEABILITY AND AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS HIGH. HAZARD OF EROSION IS MODERATE. NO FLOODING HAZARD. SEASONAL HIGH WATER TABLE IS MORE THAN 6 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

52B—WINTERGREEN LOAM (2 TO 7 PERCENT SLOPES)
SOIL IS A VERY DEEP AND WELL DRAINED. SURFACE LAYER IS BROWN LOAM ABOUT 3 INCHES THICK. SUBSURFACE SOIL IS STRONG BROWN LOAM TO A DEPTH OF 7 INCHES. SUBSOIL IS RED CLAY TO A DEPTH OF APPROXIMATELY 35 INCHES AND RED CLAY WITH PINKISH WHITE AND STRONG BROWN MOTTLES TO APPROXIMATELY 62 INCHES.

AVAILABLE WATER CAPACITY IS HIGH. SURFACE RUN OFF IS MEDIUM. HAZARD OF EROSION IS SLIGHT. SEASONAL HIGH WATER TABLE IS MORE THAN 5 FEET BELOW SURFACE. K-SAT: MODERATELY HIGH TO HIGH (0.57 TO 1.98 IN/HR). HYDROLOGIC SOIL GROUP: B

ALL SOILS ON SITE
THE HIGH CONTENT OF CLAY IN THE SUBSURFACE LAYER INCREASES THE DIFFICULTY OF DIGGING, FILLING, AND COMPACTING THE SOIL MATERIAL IN SHALLOW EXCAVATIONS.

STRUCTURAL PRACTICES

1. TEMPORARY CONSTRUCTION ENTRANCE (3.02) - A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE EXISTING GRAVEL ENTRANCE OFF OF CRITZER SHOP ROAD (ROUTE 151).
2. ROAD STABILIZATION (3.03) - ACCESS ROADS, PARKING AREAS, AND OTHER ON-SITE VEHICLE TRANSPORTATION ROUTES SHALL BE STABILIZED WITH STONE IMMEDIATELY AFTER GRADING.
3. SILT FENCE BARRIER (3.05) - SILT FENCE BARRIERS WILL BE INSTALLED TO FILTER STORM RUNOFF FROM SHEET FLOW AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. SUPER SILT FENCE BARRIER - WIRE-REINFORCED SILT FENCE BARRIER WILL BE INSTALLED TO FILTER RUNOFF FROM SHEET FLOW AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
5. INLET PROTECTION (3.07) - INLET PROTECTION WILL BE INSTALLED AT THE PROPOSED STORM DRAIN INLET PRIOR TO FINAL STABILIZATION OF THE SITE.
6. TEMPORARY DIVERSION DIKES (3.09) - A SYSTEM OF DIVERSION DIKES TO DIRECT THE FLOW OF STORM RUNOFF INTO THE SEDIMENT BASIN WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
7. CLEANWATER DIVERSION DIKES - A SYSTEM OF DIVERSION DIKES TO DIRECT THE FLOW OF CLEAN OFFSITE WATER AROUND THE SITE WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
8. DIVERSION (3.12) - A DIVERSION CHANNEL TO DIRECT THE FLOW OF STORM RUNOFF INTO THE SEDIMENT BASIN WILL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.
9. TEMPORARY SEDIMENT BASIN (3.14) - A TEMPORARY SEDIMENT BASIN IS TO BE CONSTRUCTED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. CALCULATIONS FOR THE SEDIMENT BASIN ARE SHOWN WITH THE EROSION AND SEDIMENT CONTROL DETAIL FOR THE SEDIMENT BASIN.
10. OUTLET PROTECTION (3.18) - OUTLET PROTECTION WILL BE INSTALLED AT THE END OF ALL STORM SEWER PIPES. CALCULATIONS FOR THE OUTLET PROTECTION ARE SHOWN WITH THE EROSION AND SEDIMENT CONTROL DETAILS. THE RIPRAP SHOULD BE CHECKED PERIODICALLY TO ENSURE SCOURING IS NOT OCCURRING BENEATH FABRIC UNDERLINING OF THE RIPRAP LAYER.
11. CHECK DAM (3.20) - ROCK CHECK DAMS WILL BE INSTALLED IN THE PROPPOSED DITCHES TO REDUCE THE VELOCITY OF CONCENTRATED FLOWS WHICH WILL HELP IN THE ESTABLISHMENT OF THE GRASS LINING. AFTER THE UPSLOPE AREA IS STABILIZED, THE CHECK DAMS MAY BE REMOVED AND PROPERLY DISPOSED IN ACCORDANCE WITH VECSH REGULATIONS.

VEGETATIVE PRACTICES

1. SURFACE ROUGHENING (3.29) - ALL AREAS WITH A GRADE STEEPER THAN 3:1 SHALL BE STAIR-STEP GRADED OR GROOVED (PLATE 3.29-1) TO AID IN GRASS ESTABLISHMENT, INCREASE INFILTRATION, AND TO SLOW RUNOFF VELOCITIES.
2. TOPSOILING & STOCKPILING (3.30) - TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILES ARE TO BE STABILIZED WITH TEMPORARY VEGETATION OR TO HAVE SILT FENCE INSTALLED ALONG THE LOWER PERIMETER TO PROTECT DOWNSTREAM AREAS.
3. TEMPORARY SEEDING (3.31) - AREAS NOT BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE STABILIZED WITH A TEMPORARY SEED MIXTURE ACCEPTABLE FOR THAT TIME OF YEAR. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
4. PERMANENT SEEDING (3.32) - AREAS BROUGHT TO FINAL GRADE SHALL BE STABILIZED WITH A PERMANENT SEED MIXTURE ACCEPTABLE FOR THE PIEDMONT REGION. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
5. MULCH (3.35) - PLANT RESIDUES OR OTHER SUITABLE MATERIALS SHALL BE APPLIED TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. THIS PRACTICE SHOULD BE APPLIED TO ALL SEEDING OPERATIONS, OTHER PLANTER MATERIALS WHICH DO NOT PROVIDE ADEQUATE SOIL PROTECTION BY THEMSELVES, AND BARE AREAS WHICH CANNOT BE SEEDED DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.
6. EROSION CONTROL BLANKETS (3.36) - EROSION CONTROL BLANKETS WILL BE INSTALLED ON FILL SLOPES WITH A SLOPE GREATER THAN 3:1 FOLLOWING FINAL GRADING AND SEEDING. EROSION CONTROL BLANKETS WILL ALSO BE INSTALLED IN DITCHES WHERE POTENTIAL EROSIVE VELOCITIES MAY EXIST AS DETERMINED BY ENGINEERING CALCULATIONS. THIS WILL PROTECT FROM RILL AND GULLY EROSION. SEE EROSION CONTROL PHASE 2 PLAN FOR LOCATION.
7. TREE PROTECTION (3.38) - THE TREE FENCE BARRIER WILL BE INSTALLED TO PROTECT THE TREES OUTSIDE OF THE LIMITS OF DISTURBANCE AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
8. DUST CONTROL (3.39) - DUST CONTROL METHODS MUST BE USED TO REDUCE THE AMOUNT OF AIRBORNE DUST DURING ALL PHASES OF CONSTRUCTION WHERE SOIL IS EXPOSED OR DISTURBED.

MANAGEMENT STRATEGIES

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS THE FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
3. THE SEDIMENT BASIN SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EVERY RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE-HALF OF THE DESIGN VOLUME OF THE WET STORAGE.
4. TEMPORARY SEEDING OR OTHER STABILIZATION METHOD WILL FOLLOW IMMEDIATELY AFTER GRADING.
5. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
6. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
7. WITHIN 30 DAYS AFTER BEING NOTIFIED BY THE EROSION AND SEDIMENT CONTROL ADMINISTRATOR, THE TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE CLEANED UP OR REMOVED, AND ANY SEDIMENT TRAPS OR SEDIMENT BASINS CAN BE CLEANED OUT OR CONVERTED TO PERMANENT STORMWATER MANAGEMENT FACILITIES.
8. THE STORMWATER MANAGEMENT FACILITIES SHOULD BE CHECKED REGULARLY BY THE OWNER TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAVE NOT BEEN DAMAGED BY EROSION. THE EMERGENCY SPILLWAY SHALL BE CHECKED REGULARLY TO ENSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION RESISTANT. GRASS SHALL BE KEPT MOWN BELOW A HEIGHT OF 15" AND THE OUTLET SHOULD BE CHECKED FOR CLOGGING.

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH STRAW AND SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE IN ACCORDANCE TO STANDARD AND SPECIFICATION 3.32, PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ANY FERTILIZER AND LIME APPLICATIONS SHALL BE IN ACCORDANCE WITH SOIL TEST RESULTS. ALL SEEDED AREAS WILL BE STRAW MULCHED TO PROTECT AGAINST RILL EROSION AND TO PRESERVE SOIL MOISTURE THAT WILL ENHANCE SEED GERMINATION. CRIMPING, PUNCH ROLLER-TYPE ROLLERS, OR TRACK WALKING MAY BE USED TO INCORPORATE STRAW MULCH INTO THE SOIL ON SLOPES IF STRAW IS TO BE USED.

STORMWATER RUNOFF CONSIDERATIONS

CALCULATIONS INDICATE THAT THERE WILL BE A NET INCREASE IN POLLUTANTS AND RUNOFF VOLUME AS A RESULT OF THE THE IMPERVIOUS SURFACES PROPOSED WITH THIS DEVELOPMENT. IN PARTICULAR, THE VIRGINIA RUNOFF REDUCTION METHODOLOGY HAS BEEN UTILIZED TO QUANTIFY THE CHNAGES, AND A WET POND SHALL BE PROVIDED FOR STORMWATER MANAGEMENT. INITIALLY INSTALLED AS A TEMPORARY SEDIMENT BASIN, THE BASIN SHALL BE CONSTRUCTED TO THE FINAL BMP SPECIFICATIONS AND INCLUDES BOTH AN AQUATIC AND SAFETY BENCH. IN ADDITION, THE POND HAS BEEN SIZED TO TREAT AND DETAIN ALL INCREASES IN RUNOFF FROM THE PROPOSED DEVELOPED AT REDUCED, PRE-DEVELOPED RATES. REFER TO THE BMP PLAN FOR BMP LOADING, DESIGN VOLUME SIZING, ROUTING CALCULATIONS, DESIGN AND SPECIFICATION INFORMATION.

MAINTENANCE

1. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.
2. THE CONSTRUCTION ENTRANCE SHALL BE CHECKED DAILY FOR SOIL BUILDUP. IF THE ENTRANCE BECOMES CLOGGED WITH SOIL AND FAILS TO PREVENT TRANSPORTATION OF SOIL ONTO THE ROADWAY, ADDITIONAL STONE, REPLACEMENT OF STONE, OR A WASH-RACK MAY BE REQUIRED.
3. SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.
4. DIVERSION DIKES SHALL BE INSPECTED AFTER EVERY STORM AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, OUTLET, OR SEDIMENT TRAPPING FACILITY AS NECESSARY. ONCE EVERY TWO WEEKS, WHETHER A STORM EVENT HAS OCCURRED OR NOT, THE MEASURE SHALL BE INSPECTED AND REPAIRS MADE IF NEEDED. DAMAGES CAUSED BY CONSTRUCTION TRAFFIC OR OTHER ACTIVITY MUST BE REPAIRED BEFORE THE END OF EACH WORKING DAY.
5. STORMWATER CONVEYANCE CHANNELS:
   - 5.1. GRASS LINED CHANNELS - DURING THE INITIAL ESTABLISHMENT, GRASS LINED CHANNELS SHOULD BE REPAIRED IMMEDIATELY AND RE-ESTABLISHED IF NECESSARY. AFTER GRASS HAS BECOME ESTABLISHED, THE CHANNEL SHOULD BE CHECKED PERIODICALLY TO DETERMINE IF THE GRASS IS WITHSTANDING FLOW VELOCITIES WITHOUT DAMAGE. IF THE CHANNEL IS TO BE MOWED, IT SHOULD BE DONE IN A MANNER THAT IT WILL NOT DAMAGE THE GRASS.
   - 5.2. RIPRAP-LINED CHANNELS - RIPRAP LINED CHANNELS SHOULD BE CHECKED PERIODICALLY TO ENSURE THE SCOUR IS NOT OCCURRING BENEATH FABRIC UNDERLINING OF THE RIPRAP LAYER. THE CHANNEL SHOULD ALSO BE CHECKED TO DETERMINE THE STONES ARE NOT DISLODGED BY LARGE FLOWS.
   - 5.3. IF SEDIMENT IS DEPOSITED IN A GRASS-LINED CHANNEL, IT SHOULD BE REMOVED PROMPTLY TO PREVENT DAMAGE TO THE GRASS. SEDIMENT DEPOSITED IN A RIPRAP CHANNEL SHOULD BE REMOVED WHEN IT REDUCES THE CAPACITY OF THE CHANNEL.
6. CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EVERY RUNOFF PRODUCING STORM EVENT. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE-HALF OF THE ORIGINAL HEIGHT OF THE MEASURE. REGULAR INSPECTIONS SHALL BE MADE TO INSURE THE CENTER OF EACH DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHOULD BE CORRECTED IMMEDIATELY.
7. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
8. ALL RUNOFF SHALL BE DIRECTED INTO THE SEDIMENT BASIN THROUGHOUT CONSTRUCTION AND UNTIL THE SITE IS FULLY STABILIZED. REFER TO THE BMP PLAN FOR CONVERSION INTO THE PERMANENT FACILITY.
9. A MINIMUM OF 6 INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS REQUIRING PERMANENT SEEDING.
10. MAINTAIN PERMANENT MAINTENANCE ACCESS TO THE FOREBAY AREAS. DEMARCATION MARKERS SHOULD BE INSTALLED INTO THE FORBAY AREAS TO INDICATE SEDIMENT CLEANOUT LEVELS.

CALCULATIONS

PLEASE REFER TO THE DETAILS, STORM SEWER AND HYDRAULIC CALCULATIONS FOR THE PERFORMANCE OF THE STORM SEWER, DITCHES, AND SEDIMENT BASIN. ALSO REFER TO THE WATER QUALITY CALCULATIONS FOR COMPLIANCE WITH THE VRRM REGULATIONS, INCLUDING THE ACCOMPANYING WET POND SPECIFICATIONS, SPECIFICATION # 14, EARTHEN BERM CONSTRUCTION, FOREBAY SIZING AND PLANTING SCHEDULE.

SEQUENCE OF CONSTRUCTION

1. CONTRACTOR INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION, CLEAN WATER DIVERSION AS FIRST STEP IN CONSTRUCTION.
2. CLEARING AND GRUBBING SHALL FIRST BE LIMITED TO THAT NECESSARY TO INSTALL PERIMETER CONTROL DEVICES. THE TEMPORARY SEDIMENT BASIN, EARTHEN BERM, AND RISER. THE SEDIMENT BASIN GRADING SHOULD INCORPORATE THE GRADING OF THE PREMANENT FACILITY. DONNOT INSTALL LOW FLOW ORIFI DURING GRADING OPERATIONS. SEE SPECIFICATIONS FOR DEWATERING AND CLEANOUT ELEVATIONS
3. INSTALL ADDITIONAL PERIMETER CONTROLS: SUCH AS SILT FENCE, SUPER SILT FENCE AND DIVERSION DIKES.
4. SEDIMENT BASIN SHALL BE MADE FUNCTIONAL PRIOR TO ANY ONSITE GRADING OR GRUBBING OPERATIONS.
5. CONTRACTOR SHALL COORDINATE INSPECTIONS, AS REQUIRED BY THE THOMAS JEFFERSON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO SITE CLEARING AND BULK GRADING OPERATIONS.
6. CLEAR AND GRUB THE REMAINDER OF THE SITE TO BEGIN THE EARTHWORK OPERATIONS AS NECESSARY TO ACHIEVE FINAL GRADES.
7. SOIL STOCKPILES SHALL BE LOCATED IN AREAS THAT WILL NOT INTERFERE WITH CONSTRUCTION PHASES AND AT LEAST 15 FEET AWAY FROM AREAS OF CONCENTRATED FLOWS OR PAVEMENT. THE SIDE SLOPES OF THE STOCKPILE WILL BE ROUGHENED BY EQUIPMENT TRACKING; AND WILL NOT EXCEED 2:1 AND SHALL HAVE SILT FENCE INSTALLED ALONG THE PERIMETER TOE.
8. DENUDED AREAS SHALL DRAIN TO AN APPROVED EROSION CONTROL MEASURE AT ALL TIMES DURING CONSTRUCTION.
9. INSTALL STORM SEWER INLETS, PIPES AND CULVERTS ENSURING THAT ALL DRAIN TO AN APPROVED SEDIMENT TRAPPING DEVICE AT ALL TIMES.
10. LIME, FERTILIZE AND APPLY TEMPORARY OR PERMANENT SEEDING TO ALL DENUDED AREAS IMMEDIATELY AFTER ACHIEVING FINAL GRADES.
11. AFTER SITE HAS REACHED SUBGRADE CONDITIONS, INSTALL UTILITIES AND BEGIN ACCESS DRIVE, PARKING LOT AND LOADING AREA CONSTRUCTION.
12. AFTER THE SITE IS FULLY STABILIZED, AND PRIOR TO APPLYING TOPCOAT ASPHALT TO THE PAVED AREAS, OBTAIN APPROVAL FROM THE EROSION CONTROL INSPECTOR TO CONVERT SEDIMENT BASIN TO THE PERMANENT SWM/BMP FACILITY. SEE CONVERSION DETAILS AND SPECIFICATIONS.
13. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO ALL DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN FOURTEEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
14. AFTER SITE IS STABILIZED AND PERMISSION IS OBTAINED FROM THE EROSION CONTROL INSPECTOR, CONVERT THE SEDIMENT BASIN TO THE PERMANENT WET POND FACILITY. REMOVE DEWATERING DEVICE, INSTALL LOW FLOW ORIFI, GRADE AN AQUATIC AND SAFETY BENCHES AS SPECIFIED.
15. ENSURE THAT FOREBAY AREAS ARE GRADED TO CREATE A MINIMUM OF 1 FOOT OF SUMP ADJACENT TO THE INLET SLOT
16. REMOVE SILT FENCING, INLET PROTECTION AND OTHER REMAINING EROSION CONTROL MEASURES.
17. AN ASBUILT SURVEY INCLUDING CERTIFICATION OF THE PERMANENT WET POND FACILITY IS REQUIRED. ADDITIONALLY, A MAINTENANCE EASEMENT AND AGREEMENT IS NECESSARY TO COPMPLETE FINAL CONVERSION OF THE BMP FACILITY.

Downstream Channel Protection Conditions

Criteria: 1 year 24 Hour Storm Event - Runoff Reduction Requirement

Allowable $Q_{Post\ Dev.} = I.F. \times Q_{Pre\text{-}Dev.} \times Rv_{Pre\text{-}Dev.} / Rv_{Developed}$

$I.F. = 0.80$ for Sites > 1 Acre

$Rv_{Pre\text{-}Dev.} = 0.24$ inches

$Rv_{Post\ Dev.} = 0.48$ inches

Allowable $Q_{Post\ Dev.} = 0.80 \times Q_{Pre\text{-}Dev.} \times 0.24 / 0.48$

Allowable $Q_{Post\ Dev.} = 0.40 \times Q_{Pre\text{-}Dev.}$

Allowable $Q_{Post\ Dev.} = 0.40 \times 0.15$ cfs

Allowable $Q_{Post\ Dev.} = 0.06$ cfs

Allowable $Q_{Post\ Dev.} = 0.06$ cfs where $Q_{Post\ Dev.} = 0.06$ cfs

Required Tv = 15,804 c.f of Storage
Forebay 1 = 1' Storage = 900 c.f
Forebay 2 = 1' Storage = 758 c.f
Wet Pond = 15, 800 c.f @ Elevation = 774.30

Christopher C. Mulligan
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COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
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PHONE 434-977-0205 - FAX 434-296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

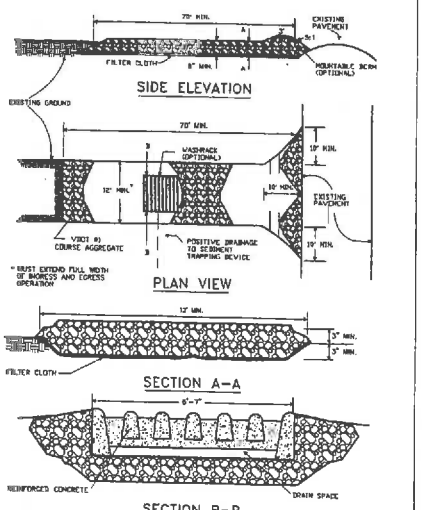
CONTOUR INTERVAL
N/A

EROSION CONTROL NARRATIVE
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

(CE) CONSTRUCTION ENTRANCE

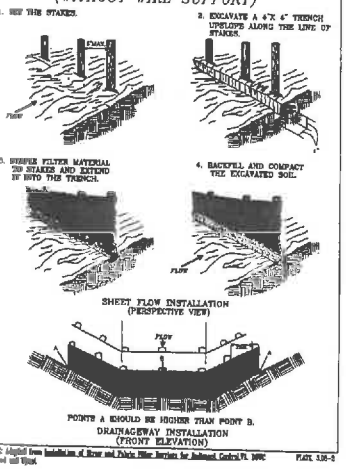
STONE CONSTRUCTION ENTRANCE



SOURCE: ADAPTED from 1983 Maryland Standards for Soil erosion and Sediment Control, and Va. DSWC — Plate 3.07-1

(SF) SILT FENCE

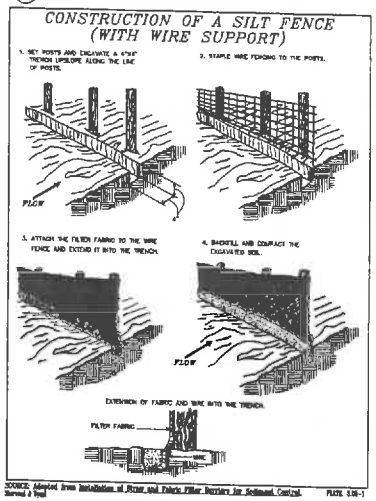
CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, VA. DSWC — Plate 3.08-2

(SSF) SUPER SILT FENCE

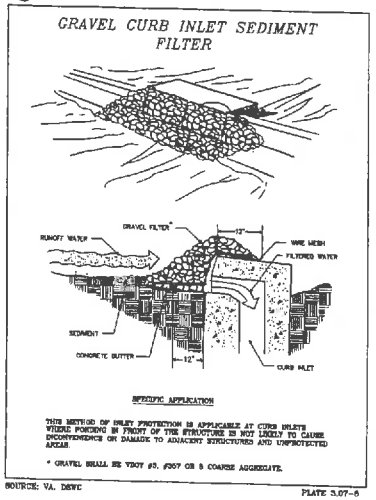
CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Harwood & Wyatt — Plate 3.08-1

(IP) INLET PROTECTION

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

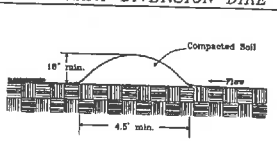
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

* GRAVEL SHALL BE VDOT #3, #357 OR 8 COURSE AGGREGATE.

SOURCE: VA. DSWC — PLATE 3.07-6

(DD) DIVERSION DIKE

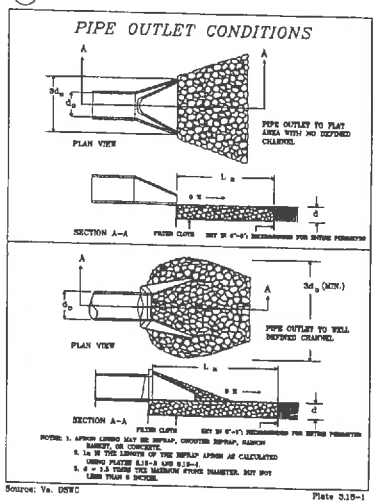
TEMPORARY DIVERSION DIKE



SOURCE: VA. DSWC — PLATE 3.09-1

(OP) OUTLET PROTECTION

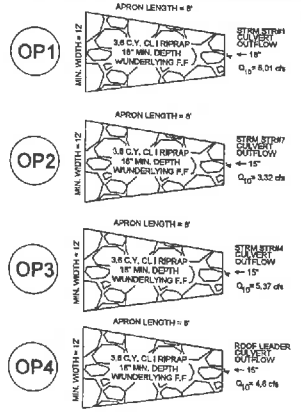
PIPE OUTLET CONDITIONS



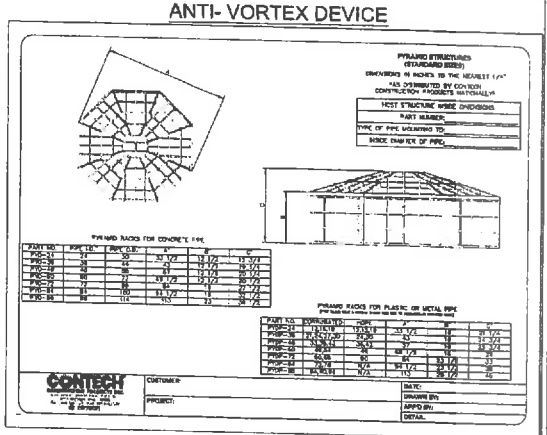
NOTES: 1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, FABRON BASKET, OR CONCRETE.
2. L_a IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.10-3 AND 3.10-4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.

Source: Va. DSWC — Plate 3.18-1

OUTLET PROTECTION SPECIFICATIONS

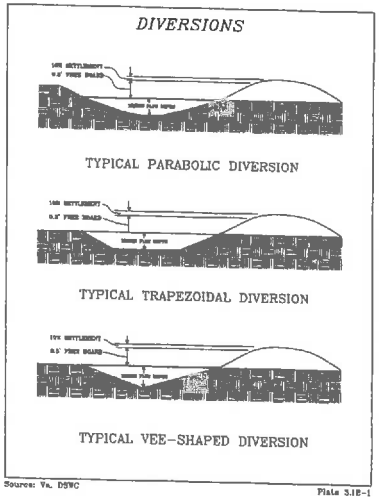


ANTI- VORTEX DEVICE



(DV) DIVERSION

DIVERSIONS



Source: Va. DSWC — Plate 3.18-1

MAINTENANCE LOG:

MAJOR GRADING ACTIVITIES	DATE	STABILIZED CONSTRUCTION AREAS	DATE	MAINTENANCE OF CONTROLS / ADDITIONS	DATE	RAINFALL	WEEKLY INSPECTIONS

COMMONWEALTH OF VIRGINIA — Christopher C. Mulligan — Lic. No. 039172 — PROFESSIONAL ENGINEER

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REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

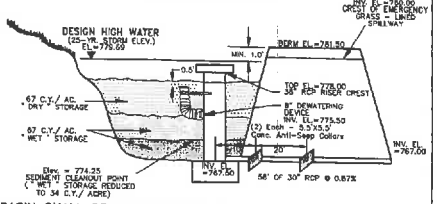
EROSION CONTROL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
PROFILES
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
14 of 19

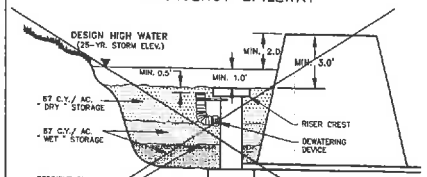
(SB) SEDIMENT BASIN

SEDIMENT BASIN SCHEMATIC ELEVATIONS



BASIN SHALL BE CONSTRUCTED TO PERMANENT SPECIFICATIONS

DESIGN ELEVATIONS WITH EMERGENCY SPILLWAY



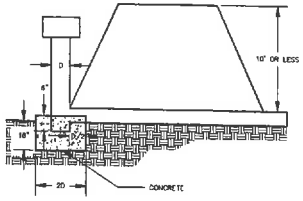
DESIGN ELEVATIONS WITHOUT EMERGENCY SPILLWAY (RISER PASSES 25-YR. EVENT)

SOURCE: VA. DSWC

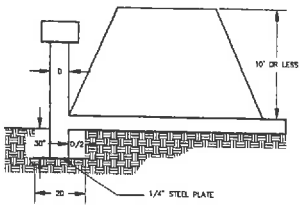
PLATE. 3.14-2

RISER PIPE BASE CONDITIONS FOR EMBANKMENTS LESS THAN 10' HIGH

CONCRETE BASE FOR EMBANKMENT 10' OR LESS IN HEIGHT



STEEL BASE FOR EMBANKMENT 10' OR LESS IN HEIGHT



SOURCE: VA. DSWC

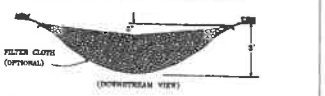
PLATE. 3.14-14

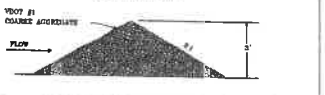
COMMONWEALTH OF VIRGINIA — Christopher C. Mulligan — Lic. No. 03372 — PROFESSIONAL ENGINEER

(CD) CHECK DAM

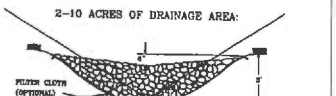
ROCK CHECK DAM

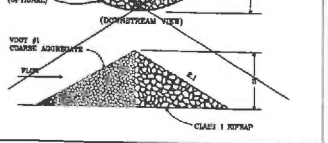
2 ACRES OR LESS OF DRAINAGE AREA:





2-10 ACRES OF DRAINAGE AREA:





SOURCE: VA. DSWC

PLATE. 3.20-1

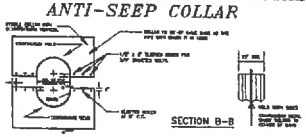
SPACING BETWEEN CHECK DAMS

L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

SOURCE: VA. DSWC

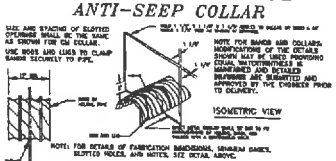
PLATE. 3.20-2

DETAILS OF CORRUGATED METAL ANTI-SEEP COLLAR



NOTES FOR COLLARS:
1. ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR FASHING TO IDENTIFY MATCHING PARTS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2" DIAMETER BOLTS WITH STANDARD TANK LUGS FOR CONNECTING COLLARS TO PIPE.

DETAIL OF HELICAL PIPE ANTI-SEEP COLLAR



USE AND SPACING OF SLOTTED OPENINGS SHALL BE THE SAME AS SHOWN FOR CM COLLAR.
USE BOOTS AND LUGS TO CLAMP BANDS SECURELY TO PIPE.
NOTE FOR BANDS AND COLLARS: MODIFICATIONS OF THE DETAILS SHOWN MAY BE USED PROVIDING EQUAL WATERTIGHTNESS IS MAINTAINED AND DETAILED DRAWINGS ARE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO DELIVERY.
NOTE: FOR DETAILS OF FABRICATION DIMENSIONS, SEAMLESS BANDS, SLOTTED HOLES, AND NOTES, SEE DETAIL ABOVE.
NOTE: TWO OTHER TYPES OF ANTI-SEEP COLLARS ARE:
1. CORRUGATED METAL, SIMILAR TO MP/PS, CROSPY 2-HOP WELDED TO A 2-HOP (4'L.) SECTION OF THE PIPE AND CONNECTED WITH CONNECTING BAND TO THE PIPE.
2. CONCRETE, SEE NOTES THEIR FORMED AROUND THE PIPE WITH 2# REBAR SPACED 12" HORIZONTALLY AND VERTICALLY.

SOURCE: USDA-SCS

Plate 3.14-13

(PS) PERMANENT SEEDING MIXTURES FOR THE PIEDMONT AREA

TABLE 25	TOTAL LBS. PER ACRE
MINIMUM CARE LAWN - COMMERCIAL OR RESIDENTIAL	175-200 LBS.
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE	95-100%
- IMPROVED PERENNIAL RYE GRASS	0-5%
- KENTUCKY BLUEGRASS	0-5%
HIGH MAINTENANCE LAWN	200-250 LBS.
- KENTUCKY 31 OR TURF-TYPE TALL FESCUE	100%
GENERAL SLOPE (3:1 OR LESS)	
- KENTUCKY 31 FESCUE	128 LBS.
- RED TOP GRASS	2 LBS.
- SEASONAL NURSE CROP*	20 LBS.
LOW-MAINTENANCE SLOPE (STEEPER THAN 3:1)	
- KENTUCKY 31 FESCUE	108 LBS.
- RED TOP GRASS	2 LBS.
- SEASONAL NURSE CROP*	20 LBS.
- CROWN VETCH**	20 LBS.
	TOTAL 150 LBS.

*USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW.

FEBRUARY 15TH THROUGH APRIL 30TH.....ANNUAL RYE
MAY 1ST THROUGH AUGUST 15TH.....FOXTAIL MILLET
AUGUST 16TH THROUGH OCTOBER 31ST.....ANNUAL RYE
NOVEMBER 1ST THROUGH FEBRUARY 15TH.....ANNUAL RYE

*** SUBSTITUTE SERICEA LESPEDEZA FOR CROWNVETCH EAST OF FARMVILLE, VA (MAY THROUGH SEPTEMBER USE HULLED SERICEA, ALL OTHER PERIODS, USE UNHULLED SERICEA.) IF FLATPEA IS USED IN LIEU OF CROWNVETCH, INCREASE RATE TO 30 LBS/ACRE. ALL LEGUME SEED MUST BE PROPERLY INNOCULATED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW MAINTENANCE MIX DURING WARMER SEEDING PERIODS; ADD 10- 20 LBS/ACRE IN MIXES.

(PS) PERMANENT SEEDING FERTILIZATION AND MAINTENANCE

TABLE 24
Maintenance Fertilization for Permanent Seedings
Use Soil Test Recommendation or Rates Shown Below

Seeding Mixture	Formulation	Lbs. per Acre	Lbs. per 1000 sf	Time	Mowing
Tall fescue makes up 70% or more of cover.	10-10-10 or 30-10-10	500 400	11.5 9.2	Yearly, or as needed fall	*Not closer than 3" if occasional mowing is desired.
Crownvetch; Sericea lespedeza Birdsfoot trefoil	0-20-0	400	9.2	Spring the year following establishment and every 4-5 years thereafter.	Do not mow crownvetch
Fairly uniform stand of Tall Tescue & Sericea lespedeza, or Birdsfoot Trefoil.	5-10-10	500	11.5	Fall the year following establish-ment and every 3-4 years thereafter.	Not required, not closer than 4" if occasional mowing is desired, and then in fall after seed has matured.
Weeping Lovegrass & Sericea lespedeza; fairly uniform plant distribution	5-10-10	500	11.5	Spring the year following establishment and every 3-4 years thereafter.	Not required, not closer than 4" if occasional mowing is desired, and fall after serisea has matured.
Red & chewings fescue, Kentucky bluegrass, hard fescue mixture:	20-10-10	250	5.8	September, 30 days later December, May 20-June-30, if needed.	Mow no closer than 2" for red fescue and Ky bluegrass; and closer than 3" for fescue.
	20-10-10	100	2.3		

SUGGESTED TEMPORARY SEEDING MIXTURE

FERTILIZER: 10-20-10
1,000 LBS/ACRE
SEPTEMBER-FEBRUARY 15: 50% ANNUAL RYE & 50% WINTER RYE 100 LBS/ACRE FEBRUARY 16-APRIL 30: ANNUAL RYE 100 LBS/ACRE MAY-AUGUST: GERMAN MILLET 60 LBS/ACRE OTHER OPTIONS EXIST, SEE VA EROSION AND SEDIMENT CONTROL HANDBOOK.

SUGGESTED PERMANENT SEEDING MIXTURE

LIME: 2 TONS/ACRE FERTILIZER:
10-20-10 1,000 LBS/ACRE
MARCH-MAY 15: KENTUCKY 31 FESCUE 200 LBS/ACRE, ANNUAL RYE 20 LBS/ACRE MAY 16-AUGUST 15: KENTUCKY 31 FESCUE 200 LBS/ACRE, FOXTAIL MILLET 20 LBS/ACRE AUGUST 16-OCTOBER 31: KENTUCKY 31 FESCUE 200 LBS/ACRE, ANNUAL RYE 20 LBS/ACRE NOVEMBER-FEBRUARY: KENTUCKY 31 FESCUE 200 LBS/ACRE, WINTER RYE 20 LBS/ACRE

(TS) TEMPORARY SEEDING MIXTURES FOR THE PIEDMONT AREA

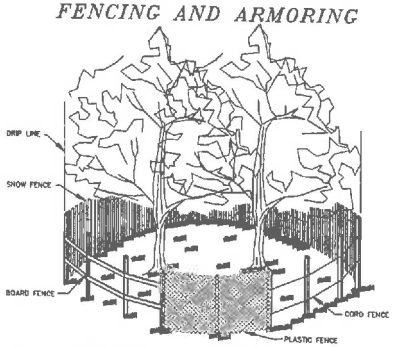
TABLE 26
TEMPORARY SEEDINGS BY RATES, DEPTHS, AND DATES

Species [1]	Seeding Rate Per acre	Seeding Rate Lbs/1000 Sq. ft	Planting depth [3] (inches)	Seeding zones [2] and Seeding Date [3] 7a and 7b 3/1-4/30	5/1-8/14	8/15-11/30	3/1-4/30	5a 5/1-8/14	8/15-11/15	6a and 6b 3/15-6/01	6/1-7/01	3/15-10/31
Cheyne and; Barley	2.5 bu.	3.80	1-2	X	-	10/15	X	-	BY 10/15	X	-	BY 10/1
Oats	3 bu.	2.21	1-2	X	-	-	X	-	-	X	-	-
Rye (4)	2.5 bu.	3.22	1-2	X	-	X	X	-	X	X	-	X
Barley or Rye (4) a Weeping lovegrass (5)	150 lbs.	3.45	1	X X	X X	10/15 X	X X	X X	10/15 X	X X	X X	10/1 X
Annual ryegrass	4 lbs.	0.09	1/4-1/2	-	X	-	-	X	-	-	X	-
Millet (7)	50 lbs.	1.15	1/4-1/2	X	-	11/1	X	-	11/1	X	-	6/15
	50 lbs.	1.15	1/2	-	X	-	-	X	-	-	X	-

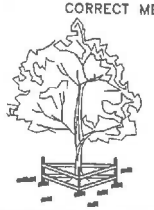
(1) Applicable on slopes of 3:1 or flat.
(2) Refer to figure A - Adopted from USDA, ARS Miscellaneous Publication #1473, January 1960
(3) Between fall and spring seeding dates, use mulch only if ground is frozen and restrict when thawed
(4) May be used as a nurse crop for late fall/early winter permanent seedings. add 50 lbs/ac. to the permanent seeding mix/ac
(4) Maryland State Highway Administration Temporary Seed Mix
(5) May be used as a nurse crop for mid-summer permanent seedings. Add 2 lbs/ac to permanent seed mix.
(6) May be used as a nurse crop for mid-summer permanent seedings. Add 10 lbs/ac. to the permanent seeding mix.

(TP) TREE PROTECTION

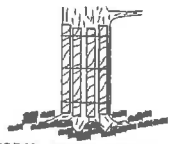
FENCING AND ARMORING



CORRECT METHODS OF TREE FENCING



TRIANGULAR BOARD FENCE



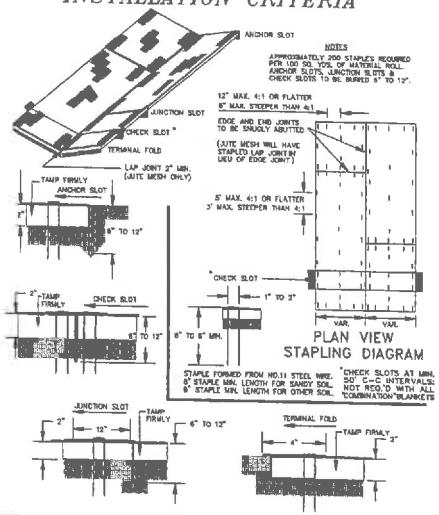
CORRECT TRUNK ARMORING

Source: Va. DSCW

Plate 3.38-2

(BM) BLANKET MATTING (EC-2)

TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



SOURCE: VDOT ROAD AND BRIDGE STANDARDS

PLATE: 3.36-2

ROUDABUSH, GALE & ASSOCIATES, INC.
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A PROFESSIONAL CORPORATION
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REVISIONS
12/19/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

EROSION CONTROL DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8672

SHEET
15 of 19

Afton Mountain Expanded
Prepared by Hewlett-Packard Company
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Type II 24-hr 25-Year Rainfall=6.17"
Printed 12/8/2014

Summary for Pond 8P: Sediment Basin-Prior to Grading

[82] Warning: Early inflow requires earlier time span

Inflow Area =	8.400 ac, Inflow Depth > 6.09"	for 25-Year event
Inflow =	73.19 cfs @ 12.03 hrs, Volume=	4.261 af
Outflow =	25.68 cfs @ 12.22 hrs, Volume=	2.575 af, Atten= 65%, Lag= 11.3 min
Primary =	25.68 cfs @ 12.22 hrs, Volume=	2.575 af
Secondary =	0.00 cfs @ 5.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 779.20' @ 12.22 hrs Surf.Area= 24,578 sf Storage= 100,210 cf
Flood Elev= 780.50' Surf.Area= 24,804 sf Storage= 119,909 cf

Plug-Flow detention time= 150.0 min calculated for 2.574 af (60% of inflow)
Center-of-Mass det. time= 77.2 min (833.1 - 755.9)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	119,909 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	25	0	0
773.00	1,539	1,664	1,664
774.00	6,246	7,887	9,551
776.00	15,214	21,462	31,013
778.00	24,538	39,753	70,766
780.00	24,604	49,143	119,909

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	30.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf
#2	Device 1	778.00'	36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	780.00'	12.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=25.77 cfs @ 12.22 hrs HW=779.19' (Free Discharge)
↳1=Culvert (Passes 25.77 cfs of 78.37 cfs potential flow)
↳2=Orifice/Grate (Orifice Controls 25.77 cfs @ 5.25 fps)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=770.11' (Free Discharge)
↳3=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Afton Mountain Expanded
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Type II 24-hr 25-Year Rainfall=6.17"
Printed 12/8/2014

Summary for Pond 15P: Sediment Basin-Graded

[82] Warning: Early inflow requires earlier time span

Inflow Area =	8.400 ac, Inflow Depth > 6.09"	for 25-Year event
Inflow =	73.19 cfs @ 12.03 hrs, Volume=	4.261 af
Outflow =	44.30 cfs @ 12.15 hrs, Volume=	3.184 af, Atten= 39%, Lag= 6.9 min
Primary =	44.30 cfs @ 12.15 hrs, Volume=	3.184 af
Secondary =	0.00 cfs @ 5.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 774.30' Surf.Area= 8,018 sf Storage= 15,776 cf
Peak Elev= 779.69' @ 12.15 hrs Surf.Area= 19,897 sf Storage= 92,531 cf (76,755 cf above start)
Flood Elev= 780.50' Surf.Area= 26,433 sf Storage= 112,440 cf (96,664 cf above start)

Plug-Flow detention time= 131.2 min calculated for 2.703 af (63% of inflow)
Center-of-Mass det. time= 52.4 min (808.2 - 755.8)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	112,440 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	1,275	0	0
772.00	3,429	4,704	4,704
773.60	4,513	7,150	11,854
774.00	8,472	1,299	13,152
776.00	12,110	20,582	33,734
778.00	16,151	28,261	61,995
779.60	20,131	32,654	94,649
780.00	26,190	4,633	99,282
780.50	26,433	13,158	112,440

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	30.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf
#2	Device 1	778.00'	36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Secondary	780.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=44.27 cfs @ 12.15 hrs HW=779.69' (Free Discharge)
↳1=Culvert (Passes 44.27 cfs of 78.18 cfs potential flow)
↳2=Orifice/Grate (Orifice Controls 44.27 cfs @ 6.26 fps)

Afton Mountain Expanded
Prepared by Hewlett-Packard Company
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Type II 24-hr 1-Year Rainfall=2.26"
Printed 12/8/2014

Summary for Subcatchment 4S: Onsite Post-Dev. Roof Leader/Gravel Sheetflow

Existing Farm Pond ignored in computations. Results are conservative

Runoff = 8.50 cfs @ 11.98 hrs, Volume= 0.377 af, Depth> 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 4.430	87	Urban industrial, 72% imp, HSG C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	230	0.0200	0.64		Sheet Flow, Gravel PArking Area n= 0.030 P2= 2.50"
0.2	80	0.2000	6.71		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
6.2	310	Total			

Afton Mountain Expanded
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Type II 24-hr 2-Year Rainfall=2.75"
Printed 12/8/2014

Summary for Subcatchment 3S: Pre Developed Drainage

Detention Computations are based on Offsite Contributing and Onsite Disturbed Areas. Pre-Dev. Analysis is established from similar contributing Watershed to same point of Analysis.

Runoff = 0.60 cfs @ 12.50 hrs, Volume= 0.120 af, Depth> 0.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=2.75"

Area (ac)	CN	Description
* 4.430	60	Developed Portion of Site
* 1.150	60	Developed Portion of Site
* 1.540	60	Developed Portion of Site
7.120	60	Weighted Average

Tc Length Slope Velocity Capacity Description

Events for Subcatchment 3S: Pre Developed Drainage

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	0.15	0.051	0.09
2-Year	0.60	0.120	0.20
5-Year	4.19	0.467	0.84
10-Year	8.82	0.926	1.56
25-Year	18.10	1.853	3.12
50-Year	27.23	2.780	4.66
100-Year	46.90	4.163	6.92

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Subcatchment 6S: Offsite Contributing Area

Runoff = 1.33 cfs @ 12.21 hrs, Volume= 0.110 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 1.090	90	Paved roads w/open ditches, 50% imp, HSG C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.1	250	0.1000	0.15		Sheet Flow, Shoulder & R/W Grass: Bermuda n= 0.410 P2= 2.50"

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Type II 24-hr 100-Year Rainfall=13.14"
Printed 12/8/2014

Events for Subcatchment 6S: Offsite Contributing Area

Event	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-Year	1.33	0.110	1.21
2-Year	1.77	0.148	1.62
5-Year	3.26	0.279	3.07
10-Year	4.49	0.390	4.30
25-Year	6.87	0.591	6.50
50-Year	8.53	0.764	8.41
100-Year	11.97	1.082	11.94

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Pond 14P: Forebay #2

Inflow Area =	1.150 ac, Inflow Depth > 1.37"	for 1-Year event
Inflow =	2.36 cfs @ 12.04 hrs, Volume=	0.131 af
Outflow =	2.34 cfs @ 12.05 hrs, Volume=	0.127 af, Atten= 1%, Lag= 0.9 min
Primary =	2.34 cfs @ 12.05 hrs, Volume=	0.127 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 788.92' @ 12.05 hrs Surf.Area= 493 sf Storage= 334 cf

Plug-Flow detention time= 20.3 min calculated for 0.127 af (97% of inflow)
Center-of-Mass det. time= 9.0 min (784.1 - 775.1)

Volume	Invert	Avail.Storage	Storage Description
#1	787.50'	1,360 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
787.50	10	0	0
788.00	150	40	40
790.00	898	1,048	1,088
790.25	1,277	272	1,360

Device	Routing	Invert	Outlet Devices
#1	Primary	788.50'	2.5' long x 1.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=2.33 cfs @ 12.05 hrs HW=788.92' (Free Discharge)
↳1=Sharp-Crested Rectangular Weir (Weir Controls 2.33 cfs @ 2.32 fps)

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Type II 24-hr 1-Year Rainfall=2.26"
Printed 12/8/2014

Summary for Subcatchment 13S: Onsite Contributing Area Str#8

Runoff = 2.36 cfs @ 12.04 hrs, Volume= 0.131 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 1.150	92	Urban commercial, 85% imp, HSG B/C

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.0					Direct Entry,

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Type II 24-hr 1-Year Rainfall=2.26"
Printed 12/8/2014

Summary for Subcatchment 10S: Onsite Contributing Area Str#9

Runoff = 1.35 cfs @ 12.05 hrs, Volume= 0.073 af, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=2.26"

Area (ac)	CN	Description
* 1.540	78	Urban industrial, 50% imp, HSG A

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	120	0.0500	1.42		Sheet Flow, Rooftop n= 0.015 P2= 2.50"
10.0	900	0.0100	1.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
11.4	1,020	Total			

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Type II 24-hr 1-Year Rainfall=2.26"
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Summary for Pond 11P: Forebay #1

Inflow Area =	1.540 ac, Inflow Depth > 0.57"	for 1-Year event
Inflow =	1.35 cfs @ 12.05 hrs, Volume=	0.073 af
Outflow =	1.30 cfs @ 12.07 hrs, Volume=	0.068 af, Atten= 4%, Lag= 1.6 min
Primary =	1.30 cfs @ 12.07 hrs, Volume=	0.068 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 784.78' @ 12.07 hrs Surf.Area= 649 sf Storage= 353 cf

Plug-Flow detention time= 31.4 min calculated for 0.068 af (94% of inflow)
Center-of-Mass det. time= 9.5 min (828.2 - 818.7)

Volume	Invert	Avail.Storage	Storage Description
#1	784.00'	6,579 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
784.00	250	0	0
785.00	758	504	504
786.00	2,982	1,870	2,374
787.00	5,428	4,205	6,579

Device	Routing	Invert	Outlet Devices
#1	Primary	784.50'	2.5' long x 1.50' rise Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=1.25 cfs @ 12.07 hrs HW=784.78' (Free Discharge)
↳1=Sharp-Crested Rectangular Weir (Weir Controls 1.25 cfs @ 1.84 fps)

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Type II 24-hr 1-Year Rainfall=2.26"
Printed 12/8/2014

Stage-Discharge for Pond 2P: Proposed Pond

Elevation (feet)	Discharge (cfs)	Primary (cfs)	Secondary (cfs)
770.00	0.00	0.00	0.00
770.15	0.00	0.00	0.00
770.30	0.00	0.00	0.00
770.45	0.00	0.00	0.00
770.60	0.00	0.00	0.00
770.75	0.00	0.00	0.00
770.90	0.00	0.00	0.00
771.05	0.00	0.00	0.00
771.20	0.00	0.00	0.00
771.35	0.00	0.00	0.00
771.50	0.00	0.00	0.00
771.65	0.00	0.00	0.00
771.80	0.00	0.00	0.00
771.95	0.00	0.00	0.00
772.10	0.00	0.00	0.00
772.25	0.00	0.00	0.00
772.40	0.00	0.00	0.00
772.55	0.00	0.00	0.00
772.70	0.00	0.00	0.00
772.85	0.00	0.00	0.00
773.00	0.00	0.00	0.00
773.15	0.00	0.00	0.00
773.30	0.00	0.00	0.00
773.45	0.00	0.00	0.00
773.60	0.00	0.00	0.00
773.75	0.00	0.00	0.00
773.90	0.00	0.00	0.00
774.05	0.00	0.00	0.00
774.20	0.00	0.00	0.00
774.35	0.01	0.01	0.00
774.50	0.02	0.02	0.00
774.65	0.02	0.02	0.00
774.80	0.03	0.03	0.00
774.95	0.03	0.03	0.00
775.10	0.03	0.03	0.00
775.25	0.04	0.04	0.00
775.40	0.04	0.04	0.00
775.55	0.04	0.04	0.00
775.70	0.05	0.05	0.00
775.85	0.05	0.05	0.00
776.00	0.05	0.05	0.00
776.15	0.05	0.05	0.00
776.30	0.06	0.06	0.00
776.45	0.06	0.06	0.00
776.60	0.06	0.06	0.00
776.75	0.06	0.06	0.00
776.90	0.37	0.37	0.00
777.05	1.20	1.20	0.00
777.20	2.36	2.36	0.00
777.35	3.56	3.56	0.00
777.50	4.41	4.41	0.00
777.65	5.13	5.13	0.00
777.80	5.76	5.76	0.00
777.95	6.33	6.33	0.00
778.10	7.83	7.83	0.00
778.25	11.18	11.18	0.00
778.40	15.59	15.59	0.00
778.55	20.79	20.79	0.00
778.70	26.69	26.69	0.00
778.85	33.17	33.17	0.00
779.00	40.21	40.21	0.00
779.15	46.26	46.26	0.00
779.30	48.90	48.90	0.00
779.45	51.42	51.42	0.00
779.60	53.81	53.81	0.00
779.75	56.09	56.09	0.00
779.90	58.29	58.29	0.00
780.05	61.00	60.40	0.60
780.20	67.24	62.45	4.79
780.35	75.58	64.42	11.16
780.50	85.43	66.34	19.09

COMMONWEALTH OF VIRGINIA
Christopher C. Mulligan
Lic. No. 031872
PROFESSIONAL ENGINEER

Permanent Wet Pond Specifications

Afton Mountain Expanded
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Type II 24-hr 1-Year Rainfall=2.26"
Printed 12/8/2014

Summary for Pond 2P: Proposed Pond

Inflow Area =	7.120 ac, Inflow Depth > 0.96"	for 1-Year event
Inflow =	11.29 cfs @ 11.99 hrs, Volume=	0.573 af
Outflow =	0.06 cfs @ 20.00 hrs, Volume=	0.037 af, Atten= 99%, Lag= 480.5 min
Primary =	0.06 cfs @ 20.00 hrs, Volume=	0.037 af
Secondary =	0.00 cfs @ 5.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 774.30' Surf.Area= 8,018 sf Storage= 15,776 cf
Peak Elev= 775.43' @ 20.00 hrs Surf.Area= 12,973 sf Storage= 39,092 cf (23,316 cf above start)
Flood Elev= 780.50' Surf.Area= 26,433 sf Storage= 112,440 cf (96,664 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= 164.5 min (957.0 - 792.5)

Volume	Invert	Avail.Storage	Storage Description
#1	770.00'	112,440 cf	Custom Stage Data (Prismatic)Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
770.00	1,275	0	0
772.00	3,429	4,704	4,704
773.60	4,513	7,150	11,854
774.00	8,472	1,299	13,152
776.00	12,110	20,582	33,734
778.00	16,151	28,261	61,995
779.60	20,131	32,654	94,649
780.00	26,190	4,633	99,282
780.50	26,433	13,158	112,440

Device	Routing	Invert	Outlet Devices
#1	Primary	767.50'	30.0" Round Culvert L= 58.0' Box, headwall w/3 square edges, Ke= 0.500 Inlet / Outlet Invert= 767.50' / 767.00' S= 0.0086 '/' Cc= 0.900 n= 0.013, Flow Area= 4.91 sf
#2	Device 1	774.30'	0.5" Vert. Orifice/Grate X 8.00 C= 0.600
#3	Device 1	776.75'	6.0" Vert. Orifice/Grate X 4.00 C= 0.600
#4	Device 1	778.00'	36.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Secondary	780.00'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.06 cfs @ 20.00 hrs HW=775.43' (Free Discharge)
↳1=Culvert (Passes 0.06 cfs of 66.49 cfs potential flow)
↳2=Orifice/Grate (Orifice Controls 0.06 cfs @ 6.99 fps)
↳3=Orifice/Grate (Controls 0.00 cfs)
↳4=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 5.00 hrs HW=774.30' (Free Discharge)
↳5=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Afton Mountain Expanded
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Type II 24-hr 100-Year Rainfall=13.14"
Printed 12/8/2014

Events for Pond 2P: Proposed Pond

Event	Inflow (cfs)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	Elevation (feet)	Storage (cubic-feet)
1-Year	11.29	0.06	0.06	0.00	775.43	39,094
2-Year	15.60	0.31	0.31	0.00	776.87	45,091
5-Year	30.44	4.75	4.76	0.00	777.37	56,221
10-Year	42.73	14.27	14.27	0.00	778.36	67,[illegible]
25-Year	64.39	43.80	43.80	0.00	779.07	80,816
50-Year	83.34	53.80	53.80	0.00	779.80	90,854
100-Year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Virginia Runoff Reduction Method New Development Worksheet - v2.7 Revised April 2013

Site Data Summary

[illegible]

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0205 - FAX 434-296-5220 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/18/2014
Comments

DATE
Sept. 19, 2014

SCALE
N/A

CONTOUR INTERVAL
N/A

SWM NOTES AND DETAILS
ZENITH QUEST
AFTON MOUNTAIN
SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
6572

PLANT LIST-TREES

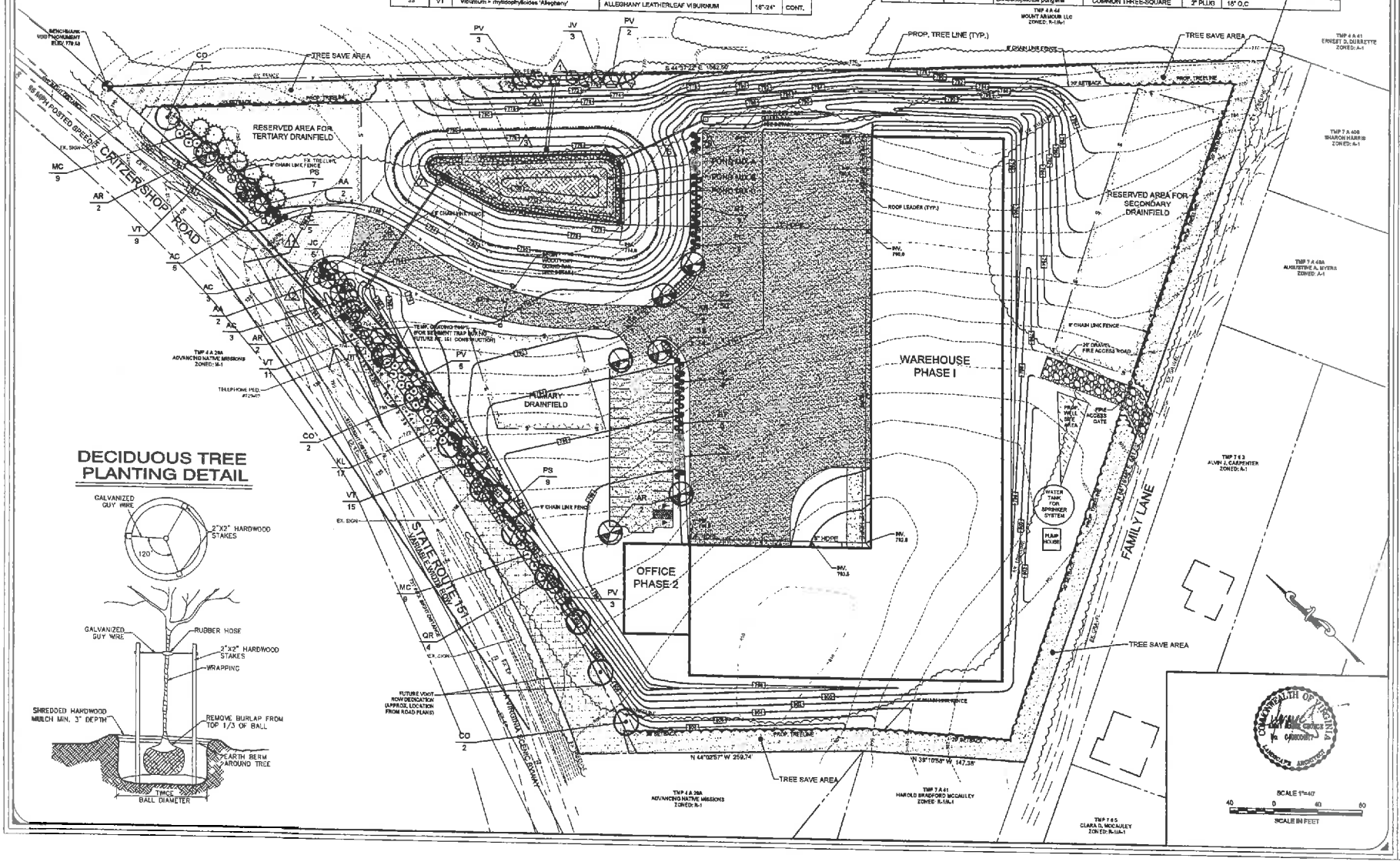
QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
4	AA	Amelanchier arborea	DOWNY SERVICEBERRY	1.5" CAL.	B & B' / MULTI-STEM
4	AR	Acer rubrum "October Glory"	OCTOBER GLORY RED MAPLE	1.5" CAL.	B & B'
5	CO	Carya ovata	SHAGBARK HICKORY	1.5" CAL.	B & B'
4	CR	Quercus rubra	NORTHERN RED OAK	1.5" CAL.	B & B'
7	JV	Juniperus virginiana	EASTERN RED CEDAR	4-5' HT.	B & B'
19	PS	Pinus strobus	WHITE PINE	4-5' HT.	B & B'
16	PV	Pinus virginiana	VIRGINIA PINE	4-5' HT.	B & B'

PLANT LIST-SHRUBS/ORNAMENTAL GRASS

QUANTITY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
11	AC	Aronia arbutifolia	RED CHOKEBERRY	18"-24"	CONT.
18	BT	Berberis thunbergii atropurpurea 'Crimson Pygmy'	CRIMSON PYGMY DWARF JAPANESE BARBERRY	18"-24"	CONT.
10	JC	Juniperus chinensis 'Sea Green'	SEA GREEN JUNIPER	18"-24"	CONT.
17	KL	Kalmia latifolia	MOUNTAIN LAUREL	18"-24"	CONT.
18	MC	Morella cerifera	WAX MYRTLE	18"-24"	CONT.
40	PC	Pyracantha coccinea 'Rutgers'	RUTGERS PYRACANTA	18"-24"	CONT.
74	SS	Schizachyrium scoparium 'Prairie Munchkin'	PRAIRIE MUNCHKIN DWARF LITTLE BLUESTEM	1 GAL.	24" O.C.
35	VT	Viburnum = rhytidophylloides 'Alleghany'	ALLEGHANY LEATHERLEAF VIBURNUM	18"-24"	CONT.

PLANT LIST-WET POND

QNTY.	KEY	WATER DEPTH	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
1	POND MIX A	4"1" BELOW ELEV. 773.3	Lemna minor	DUCKWEED	1 CUP	LIVE PLANTS
18			Vallisneria americana	WILD CELERY	2" PLUG	24" O.C/ PLACE ABOVE ELEV. 772.0
5	POND MIX B	6" - 1" (ELEV. 773.3 TO 773.6)	Nuphar lutea	SPATTERDOCK	1 GAL.	CONT./ RANDOM SPACING
230			Peltandra virginica	ARROW ARUM	2" PLUG	18" O.C
250			Pontederia cordata	PICKERELWEED	2" PLUG	18" O.C
174			Schoenoplectus pungens	COMMON THREE-SQUARE	2" PLUG	18" O.C
25	POND MIX C	0" - 6" (ELEV. 773.6 TO 774.3)	Hibiscus moscheutos	MARSH-MALLOW HIBISCUS	1 GAL.	CONT./ 4' O.C/ RANDOM GROUPING
250			Leersia oryzoides	RICE CUTGRASS	2" PLUG	18" O.C
200			Pontederia cordata	PICKERELWEED	2" PLUG	18" O.C
252			Schoenoplectus pungens	COMMON THREE-SQUARE	2" PLUG	18" O.C



DECIDUOUS TREE PLANTING DETAIL

ROUDABUSH, GALE & ASSOCIATES, INC.
ENGINEERS, SURVEYORS AND LAND PLANNERS
A PROFESSIONAL CORPORATION
SERVING VIRGINIA SINCE 1956
914 MONTICELLO ROAD - CHARLOTTESVILLE, VIRGINIA 22902
PHONE 434-977-0928 - FAX 434-293-8859 - EMAIL INFO@ROUDABUSH.COM

REVISIONS
12/18/2014 Comments
08/11/2016 Comments

DATE
Sept. 19, 2014

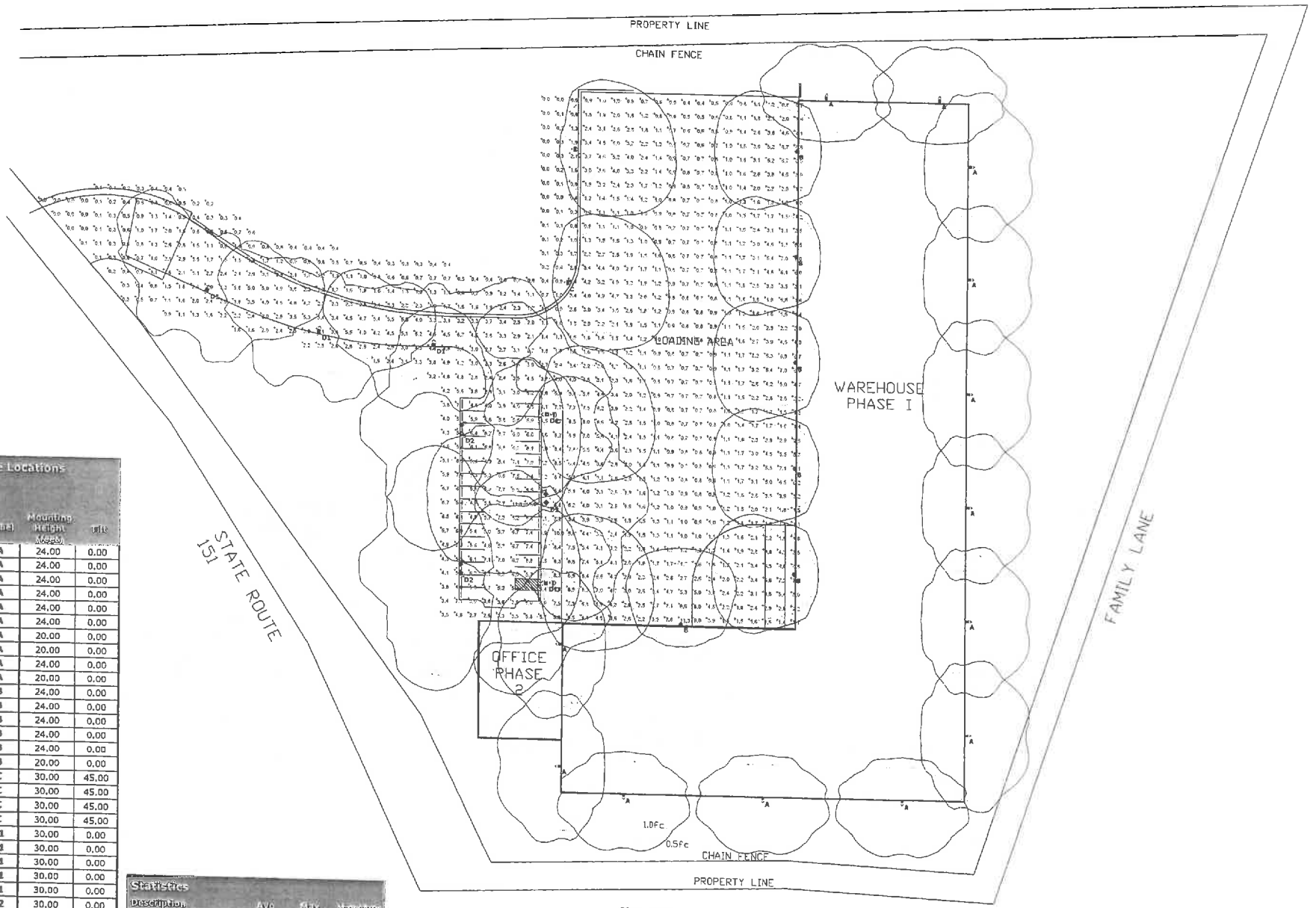
SCALE
1" = 40'

CONTOUR INTERVAL
2 Feet

LANDSCAPING PLAN
ZENITH QUEST
AFTON MOUNTAIN SITE PLAN
NELSON COUNTY, VIRGINIA

FILE NUMBER
8572

SHEET
17 of 19



Plan View
Scale - 1" = 30'

Luminaire Locations

No.	Label	Mounting Height (feet)	Tilt
1	A	24.00	0.00
2	A	24.00	0.00
3	A	24.00	0.00
4	A	24.00	0.00
5	A	24.00	0.00
6	A	24.00	0.00
7	A	20.00	0.00
8	A	20.00	0.00
9	A	24.00	0.00
10	A	20.00	0.00
11	B	24.00	0.00
12	B	24.00	0.00
13	B	24.00	0.00
14	B	24.00	0.00
15	B	24.00	0.00
16	B	20.00	0.00
17	C	30.00	45.00
18	C	30.00	45.00
19	C	30.00	45.00
20	C	30.00	45.00
21	D1	30.00	0.00
22	D1	30.00	0.00
23	D1	30.00	0.00
24	D1	30.00	0.00
25	D1	30.00	0.00
26	D2	30.00	0.00
27	D2	30.00	0.00
28	D2	30.00	0.00

Statistics

Description	Avg	Max	Max/Avg
Loading Area	2.4 fc	11.3 fc	4.71
Parking Lot	6.4 fc	11.6 fc	1.81

MEI engineering, inc.
mechanical electrical industrial consultants
Harrisonburg, VA (540) 432 6372
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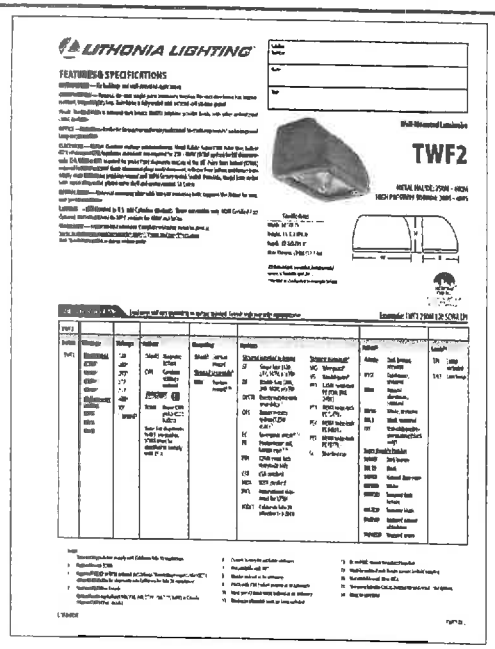
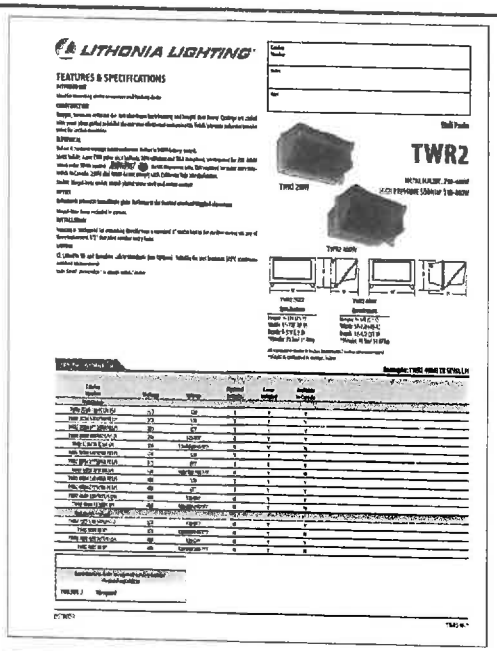
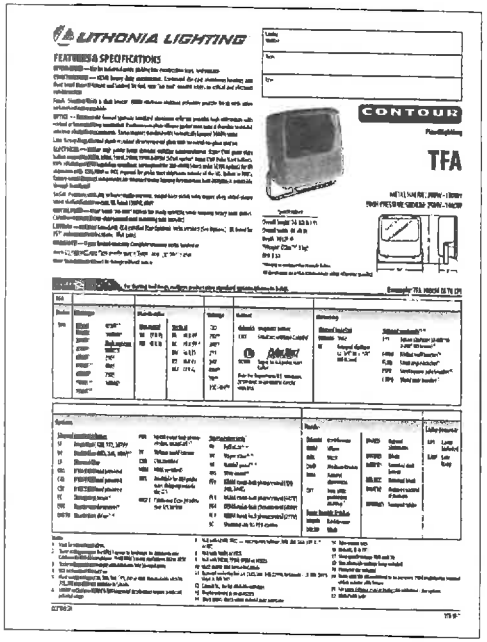
ZENITH QUEST
AFTON MOUNTAIN
Nelson County, Virginia

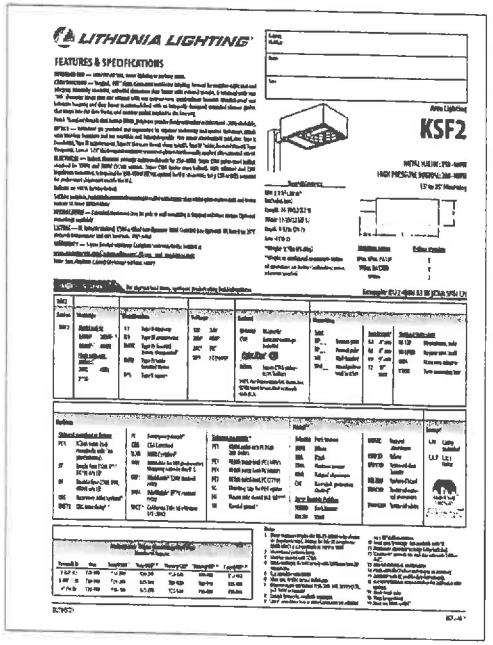
SITE PHOTOMETRICS

Designer
Wesley Siever, P.E.
Date
12/11/2014
Scale
As Noted
MEI Job No.
14158



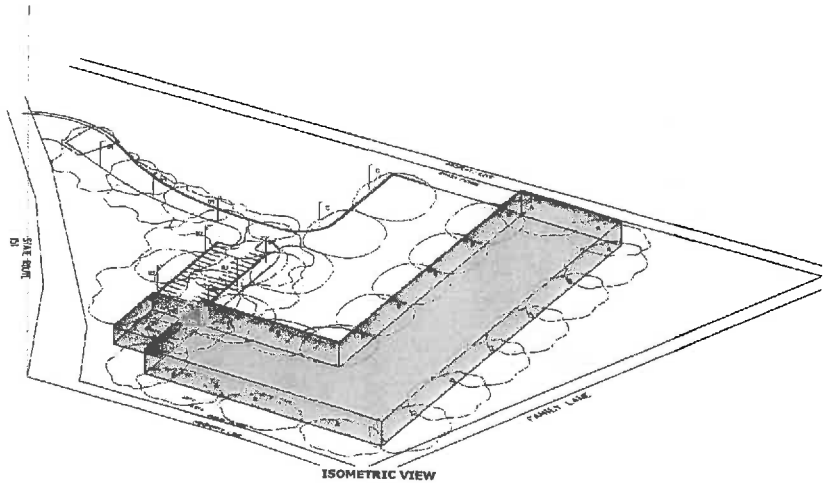






Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Lamp	Number Lamps	Lumens/Lamp	Light Loss Factor	Description	Watts
	A	13	Lithonia Lighting	TWF2 400M (PULSE)	ONE 400-WATT CLEAR BT28 METAL HALIDE, VERTICAL BASE UP POS.	1	36000	0.75	CONTOUR SERIES BUILDING MOUNTED WALLPACK WITH VERTICAL LAMP AND GLASS LENS	458
	B	6	Lithonia Lighting	TWR2 400M (PULSE)	MS400/U PSL SY	1	31000	0.75	DIE-CAST GENERAL PURPOSE WALLPACK WITH GLASS REFRACTOR	435.1
	C	4	Lithonia Lighting	TFA 400M TA2 (PULSE)	ONE 400-WATT CLEAR ED-37 PULSE START METAL HALIDE, VERTICAL BASE-DOWN POSITION	1	42000	0.75	CONTOUR SERIES LARGE SPECIFICATION FLOODLIGHT WITH TA2 (7X6) DISTRIBUTION	456
	D1	5	Lithonia Lighting	KSF2 400M R3 (PROBE)	ONE 400-WATT CLEAR ED-28 METAL HALIDE, HORIZONTAL POSITION.	1	32000	0.75	Specification Area Luminaire, 400W Metal Halide, R3 Reflector, Full Cutoff MEETS THE 'NIGHTTIME FRIENDLY' CRITERIA	462
	D2	3	Lithonia Lighting	KSF2 400M R3 (PROBE)	ONE 400-WATT CLEAR ED-28 METAL HALIDE, HORIZONTAL POSITION.	2	32000	0.75	Specification Area Luminaire, 400W Metal Halide, R3 Reflector, Full Cutoff MEETS THE 'NIGHTTIME FRIENDLY' CRITERIA	924



ISOMETRIC VIEW

MEI engineering, inc.
mechanical electrical industrial consultants
Harrisonburg, VA (540) 432-0273
www.meiengineering.com

ZENITH QUEST
AFTON MOUNTAIN
Nelson County, Virginia

SITE PHOTOMETRICS

REVISIONS:
1-26-15
REVIEW
COMMENTS

COMMONWEALTH OF VIRGINIA
WESLEY FRANKLIN SIEVER
Lic. No. 0402 [illegible]
1-26-15
PROFESSIONAL ENGINEER

Designer
Wesley Siever, P.E.
Date
12/11/2014
Scale
As Noted
MEI Job No.
14158

To: Mr. Hanri Kaya and Ms. Ammy George

From: Tim Padalino | Director of Planning & Zoning

Date: February 9, 2015

Subject: Clarification of Ordinance Requirements re: Developer's Bond for "Required Improvements"

I am writing to clarify guidance that I previously provided to you in my "review comments" documents for Major Site Plan #2014-005 "Zenith Quest – Afton Mountain." This clarification has to do with bonding requirements established in Article 13, Section 6 of the Nelson County Zoning Ordinance (Z.O.).

Specifically, I have previously noted that your warehouse project will be subject to the requirement to establish a developer's bond for required improvements, prior to Final Site Plan approval, pursuant to Z.O. §13-6-1-L.

However, I am writing to clarify and confirm that your project does not contain required improvements which meet both of the following tests for being subject to a developer's bond:

1.) qualifying as a "required improvement" per any Z.O. regulation; and
2.) being a "required improvement" that is explicitly listed in Z.O. 13-6

Therefore, no developer's bond is required by the Dept. of Planning & Zoning as part of this review and approval of Major Site Plan #2014-005 "Zenith Quest – Afton Mountain."

Please note that other bonds may still be applicable (with regards to Erosion & Sediment Control Plan and/or other components of the Amended Site Plan); and that those bonding requirements are subject to the appropriate approval agencies.

Please contact me if you have any questions or require any assistance, now or in the future.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

March 11, 2015

Zenith Quest International LLC
522 Chinquapin Dr
Lyndhurst, VA 22952
hkaya@zenithquestcorporation.com

RE: Coverage under the VPDES Construction General Permit (VAR10)
General Permit No. VAR10G299
Zenith Quest Afton Mountain
Industrial
Nelson

Dear Permittee:

DEQ has reviewed your Registration Statement received on October 06, 2014 and determined that the proposed land-disturbing activity is covered under the General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10). The effective date of your coverage under this general permit is July 1, 2014 or the date of this letter, whichever is later.

A copy of the general permit can be obtained from DEQ's webpage at the following location: http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/CGP2014.pdf. The general permit contains the applicable Stormwater Pollution Prevention Plan (SWPPP) requirements and other conditions of coverage. Please print the general permit and read it carefully as you will be responsible for compliance with all permit conditions.

DEQ staff has determined that the proposed land-disturbing activity will discharge to a surface water identified as impaired or for which a TMDL wasteload allocation has been established and approved prior to the term of the general permit for (i) sediment or a sediment-related parameter or (ii) nutrients. Therefore, the following general permit (Part I.B.4) and SWPPP requirements (Part II.A.5) must be implemented for the land-disturbing activity:

- Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site;
- Nutrients (e.g., fertilizers) shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events;
- Inspections shall be conducted at a frequency of (i) at least once every four (4) business days or (ii) at least once every (5) business days and no later than 48 hours following a measurable storm event. In the event that a measurable storm event occurs when there are more than 48 hours between business days, the inspection shall be conducted on the next business day; and
- Representative inspections used by utility line installation, pipeline construction, or other similar linear construction activities shall inspect all outfalls.

The general permit will expire on June 30, 2019. The conditions of the general permit require that you submit a new registration statement at least 90 days prior to that date if you wish to continue coverage under the general

permit, unless permission for a later date has been granted by the Board. Permission cannot be granted to submit the registration statement after the expiration date of the general permit.

If you have any questions about this permit, please contact the DEQ Office of Stormwater Management at ConstructionGP@deq.virginia.gov.

Sincerely,

Frederick K. Cunningham, Director
Office of Water Permits

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4219 CAMPBELL AVENUE
LYNCHBURG, VIRGINIA 24501
VDOT.Virginia.gov

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

March 12, 2015

VIA EMAIL DATED MARCH 12, 2015

Mr. Tim Padalino
Director of Planning & Zoning
County of Nelson
P. O. Box 336
Lovingston, Virginia 22949

Ref: Zenith Quest Afton Mountain Site Plan (REV 03.12.2015)
Route 151 - Nelson County

Dear Mr. ~~Padalino~~ Tim;

This is to inform you that the design of the proposed commercial entrance as depicted in the site plan for Zenith Quest dated September 19, 2014, Revised March 12, 2015 has been completed to our satisfaction. We request that two copies of the signed and sealed final site plan be submitted for VDOT's signature of acceptance, of which one copy will be retained for our files.

To assist in the coordination in design between the construction of the commercial entrance and VDOT's adjoining turn lane improvement project at the intersection of Route 151/6/638, we respectfully request the engineer, Roudabush, Gale & Associates, Inc. to please furnish the CADD files for the Zenith Quest site plan. This transfer of files may be coordinated with VDOT's Project Manager, Raina Rosado, P.E.. Mrs. Rosado's email address is Raina.Rosado@VDOT.Virginia.gov and her office telephone number is (434) 856-8318.

Please notify me if you have any questions or if I may be of further assistance.

Sincerely,

Jeffery B. Kessler, P. E.
Area Land Use Engineer
(434) 856-8293
JefferyB.Kessler@VDOT.Virginia.gov

CC: Ammy George

Thomas Jefferson Soil and Water Conservation District
706G Forest Street, Charlottesville, VA 22903
Tel: (434) 975-0224 Fax: (434) 975-1367
Web Page: *www.tjswcd.org*

Louisa Office: *39 Industrial Dr, Louisa, VA 23093*
Phone: 540-967-5940 Fax: 540-967-2557

March 18, 2015

Mr. David Thompson
Nelson County Inspections Dept.
P.O. Box 558
Lovingston VA 22949

Re: Zenith Quest

Dear David:

The Thomas Jefferson Soil and Water Conservation District has approved the revised erosion and sediment control plan for the above-referenced project (plan revision dated March 12, 2015). Ray Miles of Zenith Quest is coordinating signatures for nine copies of the plan.

Prior to construction, a Virginia Stormwater Management Program (VSMP) Permit (for > 1 acre disturbance) must be obtained from the Virginia Department of Environmental Quality. Information about this permit can be found at the following website:
http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/ConstructionGeneralPermit.aspx
Additionally, a certified "Responsible Land Disturber" (RLD) must be designated for the project.

Regards,

Alyson Sappington
District Manager

Cc. (via email) TJSWCD Nelson County Directors
Tim Padalino, Nelson County Planning Director
Ray Miles, Zenith Quest
Ammy George, Roudabush, Gale & Associates, Inc.

Draft: 4/13/2015
Updated: 4/21/2015 & 5/28/15

NELSON COUNTY PLANNING COMMISSION
MEETING MINUTES
March 25, 2015

Present: Chair Philippa Proulx, Commissioners Linda Russell, Mike Harman, Mary Kathryn Allen, Robert Goad and Larry Saunders (Board of Supervisors Liaison)

Staff Present: Tim Padalino, Director of Planning & Zoning and Stormy Hopkins, Secretary

Call to Order: Chair Proulx called the meeting to order at 7:00 P. M. in the General District Courtroom, County Courthouse, Lovingston.

Chair Proulx stated there was one change in the agenda; noting that Major Site Plan #2015-02 for Mr. Michael Penny / Pennywell, LLC has been postponed at the applicant's request.

Approval of Minutes – February 25, 2015: Chair Proulx asked to postpone the approval of minutes until the next meeting; the Commission agreed.

1. **Consideration of Applications to Expand Existing Davis Creek Agricultural and Forestal District**

2. **Consideration of Applications to Expand Existing Dutch Creek Agricultural and Forestal District**

3. **Consideration of Applications to Create New Greenfield Agricultural and Forestal District**

Chair Proulx noted that the Planning Commission would be hearing public input on each of the AFD's on an individual basis.

Mr. Padalino stated that there are four (4) applications involving the county's AFD. He noted that three (3) of those are for proposed expansions to the Dutch Creek AFD and the Davis Creek AFD; and one (1) is for the proposed creation of a new Greenfield AFD. Mr. Padalino provided a brief overview of the process to date. He also provided brief background information on the "Purpose and Intent" of the AFD program. He noted that the Planning & Zoning Office has had several phone calls from adjoining property owners with concerns on how this would affect their property. Mr. Padalino provided information from the County Code that deals with those concerns.

Chair Proulx opened the public hearing for the Davis Creek AFD additions at 7:08 p.m. for comments; no comments were made. Chair Proulx closed the public hearing.

Chair Proulx opened the public hearing for the Dutch Creek AFD additions at 7:08 p.m. for comments; no comments were made. Chair Proulx closed the public hearing.

Chair Proulx opened the public hearing for the creation of the Greenfield AFD at 7:09 p.m. for comments.

Joyce Burton, Afton: Ms. Burton stated that the Rockfish Valley is a very special place. She noted that, "she is so proud of the dozens of neighbors all up and down more than a five (5) mile stretch of the Rockfish Valley; who also love this area; and who value its rural nature enough to be willing to voluntarily restrict the development on their land in order to preserve and protect the agricultural and forestal resources (clean air, water, and natural habitats) that sustain the things that make northern Nelson so special and precious. She also noted that, when Shannon Farm made the decision to start and AFD in the Greenfield area, they had no idea that so many of their neighbors would be interested in joining; would be interested in making such a clear statement about our vision for the future of this stretch of the Rockfish. She noted that they are proud to share the beauty of this area with the visitors that come down the 151 corridor, but at the same time they want to underscore the fact that what gives that corridor its scenic draw is the agri-forestal lands that surround it. Ms. Burton stated that as our County shapes

"Any use of land, vehicle, equipment, or facility ~~that is used~~ for the off-site sale of agricultural or horticultural products or merchandise which are produced on an agricultural operation owned or controlled by the seller or the seller's family. Wayside stands are a temporary (non-permanent) land use. The operation of wayside stands is limited to daylight hours only."

Commissioner Goad asked how long would ~~be~~ the permit last, once a permit is issued. Mr. Padalino said that was a very good question. The issue was discussed; and decided that the following should be added as a condition: to the conditions: annual renewal – no fee or site plan required unless layout or configuration is modified.

Commissioner Russell asked if Wayside Stands have to abide by setbacks. She added that these are not called a building or structures, which are defined in the ordinance; and these are not permanent. She thinks that those three (3) things, they do not have to abide by the setbacks. Mr. Padalino said that if it is a permanent structure, they would have to meet the setback regulations. He added that he thinks there should be something added that the stands must be outside of the VDOT right-of-way. He feels that is the only setback that is critical for a Class A.

Mr. Padalino said performance standards need to be added to the proposed criteria for Class A. With regards to Wayside Stand, Class B, those would be dealt with on an individual basis; which would require a Special Use Permit and Minor Site Plan, including review by the PC and the BOS. Commissioner Russell stated that she personally doesn't like the idea of the BOS having to review Class B Wayside Stand permit applications, and would like to limit them to a PC review.

Chair Proulx stated that she feels the Farmers Market should be a Special Use Permit (SUP) and go before the BOS but not the Wayside Stand, Class B. She said she is unsure of the legality of having a public hearing end with the PC. Mr. Padalino said that when talking with Mr. Payne, some concern was expressed about creating a new type of review procedure outside of the established SUP process. He noted that that the PC can't authorize zoning approvals, unless it is expressly provided by the BOS. He said that it was Mr. Payne's recommendation to use the SUP process that's in place. Chair Proulx then stated that she would rather have Wayside Stand, Class B, as a SUP instead of being in the same category as a Wayside Stand, Class A.

Commissioner Russell stated that going back to the Farmers Market definition; is it considered temporary. If not, her concern is in the business district, there are no front yard setback requirement. Chair Proulx said that conditions could be put on a SUP.

Commissioner Harman wanted to get clarification on the Farmers Market definition regarding the "resale of second-hand products"; meaning someone can't buy something and resell it. Mr. Padalino said yes. Chair Proulx said "resale" should be changed to "sale". Mr. Padalino said he would rework that definition.

Chair Proulx said that specific requirements are needed for Wayside Stand, Class A. She asked that Mr. Padalino draft a proposal of those requirements and the PC will review those.

Other (as determined by Planning Commission members / as applicable):

1. Zenith Quest: Mr. Padalino said that there were four (4) conditions placed upon the Zenith Quest's approval. Those conditions included obtaining all state agency approvals: E&S Control Plan approved, a week ago today; VDOT approved on the 12th; DEQ approved the Stormwater Management Plan on the 11th. All state agencies are satisfied, completing 1 condition. He then drew attention to the three (3) County conditions. The first of those is that the roof and siding had to be non-reflective and blend with the surrounding area; and Zenith Quest will go with either Cool Desert Beige or Cool Desert Wheat for the walls. For the roof, they will go with a painted roof in Cool Emerald Green, which will not be reflective. Those materials satisfy the pertinent condition. Separately, the revised landscaping plan was accepted on March 4th, satisfying the applicable condition. Finally, the remaining condition is in regards to access on Family Lane for emergency purposes. Mr. Padalino then drew attention to materials submitted by Tommy Harvey, chief of the Rockfish Valley Volunteer Fire Department and Rescue Squad.

Commissioner Allen made a motion that the Planning Commission accept the emails dated on Friday, March 20, 2015 from Tommy Harvey to Stormy Hopkins and from Tim Padalino to Stormy Hopkins dated Monday, March 23, 2015 in support of the Zenith Quest intersection at Family Lane. Commissioner Goad provided the second; the vote ~~4—2~~ 5 - 1 in favor with ~~Chair Proulx and~~ Commission Russell voting against the motion.

2. Stormwater Management Program: Mr. Padalino stated that the statewide Virginia Stormwater Management Program (VSMP) requirements need to be incorporated into the Zoning Ordinance and Subdivision Ordinance. The BOS made a referral of proposed amendments to account for the state requirement.

Commissioner Goad made a motion that the Planning Commission ask Staff to advertise for legal notice the changes the BOS Resolution R2015-20 approved March 10, 2015 for public hearing at the April 22, 2105 meeting. Commissioner Allen provided the second; the vote 5 – 1 in favor with Commissioner Russell voting against the motion.

Mr. Padalino provided a few updates on the following applications that are pending:

- Farms wanting to be used as festival grounds – currently, there is no provision in the ordinance for such land use. Mr. Padalino is meeting with the County Administrator and County Attorney later this week, regarding these types of interests.
- To date, there has been no response from Mr. William Karnes regarding his deferred Wayside Stand Permit.
- There is a Class III tower permit that is pending from Ms. Cheryl Taylor, of Velocitel, for an AT&T tower in Afton. Ms. Taylor has a contract for the lease area with a landowner.
- The "Blue Ridge Bowl" Special Event Permit (SEP) review process is mostly complete, and they have approvals from the necessary regulatory and law enforcement agencies. The County needs to receive the $25.00 application fee in order to approve the SEP. Mr. Padalino also noted that he needs to make sure the Sheriff's Office and the VA State Police conditions for traffic are properly satisfied.

Commissioner Russell asked if the PC needs to take action on Mr. Karnes' Wayside Permit application since it was deferred, pending the hearing of Kim Page's SUP request. Mr. Padalino said he believes there should be. After further discussion, the PC decided that a review of Mr. Karnes' deferred application would be added to the April meeting agenda, and that a certified letter shall be sent to Mr. Karnes to notify him.

Chair Proulx stated that Commissioner Harman had asked about the possibility of having Supervisor Saunders do a BOS report at the meetings. Supervisor Saunders provided the following:

- The pipeline.
- The BOS is meeting every week over the next 6-8 weeks to discuss the annual County budget.
- The proposed definition for Artists' Community has been published for a public hearing by the BOS.
- There are plans to remodel the old courtroom; Judge Gamble has been working with the County on a nice concept.

Adjournment:
At 9:05 P.M. Commissioner Allen motioned to adjourn.

Respectfully submitted,

Stormy V. Hopkins

Stormy V. Hopkins
Secretary, Planning & Zoning

Tim Padalino

From: Tim Padalino
Sent: Friday, May 15, 2015 4:23 PM
To: 'Ray Miles'
Subject: RE: from Ray at Zenith Quest re: possible basement

Hello Ray,

Thanks for your phone call earlier today. I'm writing to provide you guidance on your proposal to construct a basement within the warehouse, for the purpose of implementing a specialized "firearms testing" space.

First, you asked if incorporating such a room/feature into your warehouse would require an amended site plan.

The answer is no – the proposed room/feature would not increase traffic, require more parking, or otherwise affect the terms and details of the approved Major Site Plan #2014-005. Instead of any amendments to the approved site plan, you may simply address this construction detail in your building plans that you will submit when pulling a building permit.

Second, I explained that I would need to review and determine whether or not the proposed interior testing of modified and/or re-assembled firearms is permissible per the Zoning Ordinance. You specifically asked about, "**occasional firearms testing as part of the light manufacturing process.**"

The answer is that the proposed use would be limited to a permissible accessory use; but only if it is used for internal/staff use only, and used only in connection with quality assurance/quality control and product testing. The proposed use would also be permissible only in an interior space having specialized materials and/or construction methods that effectively and properly mitigate the sounds associated with product testing.

And although this next comment addresses something that isn't part of your proposed plans, I am obligated to clarify that any such "firearms testing" room/feature must not be open to the public or otherwise be used as a firing range or target practice. And I must re-emphasize that the proposed use is permissible only as an accessory use for the purposes of product testing (see above).

I hope this information is helpful and brings clarity to your project. I also want to note that it is helpful that your proposal is to voluntarily construct a basement in order to minimize any noise to the greatest extent possible.

Thanks for your patience and cooperation, Ray. Enjoy the weekend; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Tuesday, May 12, 2015 7:59 AM
To: Tim Padalino
Subject: Re: from Ray at Zenith Quest re: possible basement

Hi Tim,

Any word yet on the basement idea?

Ray

Ray Miles

ZENITH QUEST
INTERNATIONAL

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

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From: Tim Padalino <tpadalino@nelsoncounty.org>
Date: Thursday, May 7, 2015 12:20 PM
To: Kutlay Kaya <ray@zenithquestintl.com>
Subject: RE: from Ray at Zenith Quest re: possible basement

Hi Ray,

Thanks for this message, and for your followup phone call today.

I'll continue to work on this issue with appropriate County staff; we'll need to reach a formal written determination regarding the permissibility of the weapons testing (since it has only been handled in conversational format to date).

I have specifically inquired about the firearms testing being permissible as an accessory use to the permissible primary use of manufacturing (modification and assembly of firearms).

Thanks very much for your patience; I understand this determination is resulting in the design/build team being held up. I will work to coordinate with the County Attorney to reach a determination ASAP. Feel free to call back if you haven't heard back from me, but need to.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Tuesday, May 05, 2015 1:53 PM

To: Tim Padalino
Subject: from Ray at Zenith Quest re: possible basement

Hi Tim,

We spoke about this briefly when I called you yesterday.

If Zenith Quest wished to have a 36'x120'x10' (4320 sf) basement along the north end of the warehouse with exterior exits at each end, to use for the purposes already approved by the County, namely for occasional firearms testing as part of the light manufacturing process, would we need any further permission from Planning & Zoning with regard to our currently approved site plan? I know we would need to put the possible basement into any building permit plan that we would submit to the Building Inspector. Our thinking is to possibly have this space underground for sound proofing reasons, so that neighbors would not be disturbed by the sound which is something we have previously discussed during the site plan approval process.

I had mentioned that I would plan to email you today, and am seeking an answer soon as you can, since this type of basement would require quick action here on our side with regard to budgeting, decision making, planning, and so forth. If you need further info from me, please don't hesitate to call or email.

I will look for your reply. Thanks.

Ray

Ray Miles

ZQI
ZENITH QUEST
INTERNATIONAL

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

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Tim Padalino

From: Tim Padalino
Sent: Thursday, May 07, 2015 12:38 PM
To: Phillip Payne; Steve Carter; Candy McGarry; Grant Massie
Cc: Stormy Hopkins
Subject: RE: from Ray at Zenith Quest re: possible basement

FYI: the issue of "firearms testing" being permissible (or not) in connection with the "manufacturing" use (modification and light assembly of firearms) has only been discussed in conversational format to date. As a result, it seems like I will need to issue a formal determination (with assistance and legal guidance).

Perhaps the most important consideration will be: is the "firearms testing" (indoors and underground) permissible as an accessory use to the permitted primary use of "manufacturing" (modification and assembly of firearms)?

I just spoke with Ray on the phone, and he also noted that this "firearms testing" zoning determination process is resulting in his design/build team being held up, and that thousands of dollars of delays hang in the balance. He emphasized this time sensitivity multiple times.

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Thursday, May 07, 2015 12:09 PM
To: Phillip Payne; Steve Carter; Candy McGarry; Grant Massie
Cc: Stormy Hopkins
Subject: FW: from Ray at Zenith Quest re: possible basement

We need to work together to determine if ZQI can incorporate a weapons testing facility into their permitted but as-yet-unbuilt warehouse by-right, if it is an accessory use, if it is a special use, or if it is a use not provided for (and therefore not permissible).

ZQI have previously noted to the County that, in conjunction with their weapons assembly / modifications processes, they would also need to test the weapons. However, I don't think the County has ever formally indicated that such a use is permissible (in writing).

The project manager for their warehouse project is emailing (below) and calling to receive an "OK" from the County, but I'm not clear that the proposed weapons testing is a permissible use.

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Tuesday, May 05, 2015 1:53 PM
To: Tim Padalino
Subject: from Ray at Zenith Quest re: possible basement

Hi Tim,

We spoke about this briefly when I called you yesterday.

If Zenith Quest wished to have a 36'x120'x10' (4320 sf) basement along the north end of the warehouse with exterior exits at each end, to use for the purposes already approved by the County, namely for occasional firearms testing as part of the light manufacturing process, would we need any further permission from Planning & Zoning with regard to our currently approved site plan? I know we would need to put the possible basement into any building permit plan that we would submit to the Building Inspector. Our thinking is to possibly have this space underground for sound proofing reasons, so that neighbors would not be disturbed by the sound which is something we have previously discussed during the site plan approval process.

I had mentioned that I would plan to email you today, and am seeking an answer soon as you can, since this type of basement would require quick action here on our side with regard to budgeting, decision making, planning, and so forth. If you need further info from me, please don't hesitate to call or email.

I will look for your reply. Thanks.

Ray

Ray Miles

ZQI
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INTERNATIONAL

O 434 202 7790
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M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

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Tim Padalino

From: Tim Padalino
Sent: Thursday, May 07, 2015 1:13 PM
To: Steve Carter; 'Phillip Payne'; Grant Massie
Cc: Candy McGarry
Subject: RE: Zenith Quest International -Firearms Testing

I tend to agree that evolving nature of this situation makes it much more difficult than if everything had been fully reviewed from the very beginning. And I agree that ZQI did not explicitly denote their full proposed operation/process on their submitted application materials.

From reading Ray's email, and speaking with him on the phone today, their position is that they felt I, or the Planning Commission, conveyed that the weapons testing was permissible as an accessory component of the overall weapons modification / assembly.

But (as I alluded to earlier) I don't think informal conversation with an applicant can be construed to mean formal County approval, specific zoning determination, etc. I don't think PC Chair Proulx or I knew how to respond when Mr. Kaya noted (during our 8/28 site visit) that their process would probably include testing of the firearms. My recollection is that we only asked questions (as opposed to providing any indication that this was a clearly permissible use).

I agree that M-2 does not provide for firearms testing as a primary use; but to "play the devils advocate" it seems like the testing of a manufactured / assembled product could potentially meet Phil's previous guidance from the attached document:

[redacted]

When it rains, it pours...

Tim Padalino
[434]-263-7090

From: Steve Carter
Sent: Thursday, May 07, 2015 12:59 PM
To: Tim Padalino; 'Phillip Payne'; Grant Massie
Cc: Candy McGarry
Subject: Zenith Quest International -Firearms Testing

I've copied below exerts from previous communications on what ZQi proposed to do at the Afton Site. And, I looked at the site plan application and the site plan.

I failed to see anything in which the company/its representatives suggested a firearms testing use. I'm not particularly well taken that they are requesting approvals, or interpretations, for what are not approved uses rather than denoting these new proposed uses (at the current office location in Afton and at the new ZQI facility site in Afton) when they initially sought/applied for the zoning approvals, etc. It doesn't appear that there was full disclosure of their intent(s) which may have changed the zoning decisions (i.e. warehousing, office and assembly/fabrication uses are not fire arms testing).

In reviewing the M-2 provisions, I didn't see anything about weapons testing facility; firing range, ballistics center, etc. Subject to further discussion, I don't believe there is a use in the zoning ordinance at M-2 (or perhaps elsewhere) that

provides for this use. I also suggest an interpretation to allow this use would not be correct and would very likely lead to additional appeals, public opposition, etc.

Bottom line – my input is there is not an allowable use in M-2 for what ZQI is now proposing..

(see below).

Steve

1). T. Padalino's input on AQI use by email dated 10-21-14: "ZQI wishes to conduct 80,000 SF of warehouse for wholesale storage and distribution of various goods, including (but not limited to) ammunition. Other products may include non-toxic cleaning agents. The applicant team has also stated that they intend to conduct light assembly and/or modification of handheld firearms, which seem to be a required step in their larger wholesale operation(s).

An additional 10,000 SF of office space is also proposed, to accommodate 30 proposed employees."

[redacted]

Stephen A. Carter
Nelson County Administrator
P. O. Box 336
84 Courthouse Square
Lovingston, VA 22949
Ph. (434) 263-7001
Fx. (434) 263-7004

Tim Padalino

From: Tim Padalino
Sent: Thursday, May 07, 2015 1:50 PM
To: 'Phillip Payne'; Steve Carter
Cc: Grant Massie; Candy McGarry
Subject: RE: Zenith Quest International -Firearms Testing
Attachments: FW: Zenith Quest - Meeting with Planning Commissioners; Oct PC_Minutes_10-22 _final.docx; PC_meeting_minutes_10-22_final.pdf

Phil,

[redacted]

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, August 21, 2014 11:48 AM
To: Ammy George
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

Here are the questions I've received from the PC as of right now:

- "Light assembly" of weaponry: will these modified or assembled guns be tested on site, and if so, how will the testing facility operate? Would it be an interior, soundproof facility?

In response to that question submitted in writing, ZQI brought up this "testing" element of the project in conversation during a walkabout on the site on August 28, 2014, prior to them submitting an application. I can recall PC Chair Proulx responding by asking some questions about the operational details of the proposed firearms testing. PC member Mike Harman was also present, but I don't recall him asking or stating anything in response to the firearms testing use mentioned by Mr. Peter Kaya and Mr. Ray Miles. And I'm confident that anything I said or asked was done in a non-committal, extra-cautious way (especially with caution stemming from the County's previous legal activities involving firearms, shooting ranges, etc.).

Perhaps ZQI got the impression (or made the interpretation) that the lack of County followup / focus on this "testing" component of their project represented County approval, or represented by-right permissibility of the testing, etc.

It is important to note that Mr. Ray Miles brought this "testing" issue up during the initial PC review of Major Site Plan #2014-005, at the October 2014 PC meeting. He indicated that any required testing would occur indoors within specialized spaces that would be designed to minimize or eliminate sound.

Following his presentation, the PC did not follow up on this "testing" element of the project as something that would require further review or determination, or as being a use not provided for. Supervisor Saunders was also present (in his first

meeting as BOS Liaison), and he did not have any followup comments or questions regarding "testing" for the applicant, County Staff, or the PC, either during the meeting or afterwards.

I've attached the applicable meeting minutes (Oct. 2014) for reference. And here is the most pertinent excerpt:

Mr. Ray Miles of Zenith Quest International (ZQI) then provided additional details about the project and the proposed uses. Mr. Miles noted that the warehouse would be used for the storage of ammunition, and that all ammunition would arrive packaged, and would typically leave in the same packaging. He also provided clarification to questions about what other materials may be stored at the facility, stating that a variety of goods such as natural stone tiles and non-toxic cleaning agents will be stored there. He also stated that the warehouse would potentially be used for the storage of other materials, if and when his import-export business comes across profitable opportunities, but that he currently cannot specify what other materials could potentially be stored there.

Mr. Miles then explained that part of ZQI's existing business involves distribution and sales of firearms, specifically small arms. He explained that ZQI will be involved with light assembly, disassembly, and reassembly of small arms. Mr. Miles noted that, if required, any testing facilities for these modified firearms would be entirely enclosed within the warehouse, and would be constructed according to specifications that are designed to minimize or eliminate all noise.

[redacted]

Tim Padalino
[434]-263-7090

[redacted]

Phil

On Thu, May 7, 2015 at 12:59 PM, Steve Carter <SCarter@nelsoncounty.org> wrote:

I've copied below exerts from previous communications on what ZQi proposed to do at the Afton Site. And, I looked at the site plan application and the site plan.

I failed to see anything in which the company/its representatives suggested a firearms testing use. I'm not particularly well taken that they are requesting approvals, or interpretations, for what are not approved uses rather than denoting these new proposed uses (at the current office location in Afton and at the new ZQI facility site in Afton) when they initially sought/applied for the zoning approvals, etc. It doesn't appear that there was full disclosure of their intent(s) which may have changed the zoning decisions (i.e. warehousing, office and assembly/fabrication uses are not fire arms testing).

In reviewing the M-2 provisions, I didn't see anything about weapons testing facility; firing range, ballistics center, etc. Subject to further discussion, I don't believe there is a use in the zoning ordinance at M-2 (or perhaps elsewhere) that provides for this use. I also suggest an interpretation to allow this use would not be correct and would very likely lead to additional appeals, public opposition, etc.

Bottom line – my input is there is not an allowable use in M-2 for what ZQI is now proposing..

(see below).

Steve

1). T. Padalino's input on AQI use by email dated 10-21-14: "ZQI wishes to conduct 80,000 SF of warehouse for wholesale storage and distribution of various goods, including (but not limited to) ammunition. Other products may include non-toxic cleaning agents. The applicant team has also stated that they intend to conduct light assembly and/or modification of handheld firearms, which seem to be a required step in their larger wholesale operation(s).

An additional 10,000 SF of office space is also proposed, to accommodate 30 proposed employees."

2) S. Carter's email to P. Payne date 10-21-14:

"Phil,

[redacted]

[redacted]

[redacted]

Stephen A. Carter

Nelson County Administrator

P. O. Box 336

84 Courthouse Square

Lovingston, VA 22949

Ph. (434) 263-7001

Fx. (434) 263-7004

Tim Padalino

From: Tim Padalino
Sent: Friday, June 12, 2015 9:58 AM
To: Steve Carter; Candy McGarry; Phillip Payne; Grant Massie
Subject: Zenith Quest / indoor "firearms testing" as accessory use
Attachments: RE: from Ray at Zenith Quest re: possible basement

I'm writing to provide a brief update with Zenith Quest:

In regards to the recent zoning determination given to Mr. Ray Miles (see attached correspondence sent on May 15), Justin Shimp has claimed the following during his most recent phone call to my office:

- He claims that the explanation(s) and qualifications contained in my determination that an interior "firearms testing" use is a permissible accessory use are the legal equivalent of "applying conditions," which he also claims the Zoning Administrator does not have the authority to do in making a zoning determination; and
- He (correctly) points out that Article 9, Industrial District (M-2) does not explicitly provide for accessory uses, in contrast to the way that virtually all other zoning districts do provide for accessory uses as a permissible use.

Justin has requested that these things be reviewed with a sense of urgency because Sunday, June 14th is the thirtieth day from the above-referenced zoning determination, which is the limit of his time window to file an appeal to the BZA. I suspect he will probably file an appeal regardless of whether or not he receives any commentary from the County on these matters.

He also claims that State Code gives localities the authority to voluntarily reverse a Zoning Administrator decision within 50 days, if it was made in error. He provided no statute or reference, other than anecdotal summary.

That's the extent of this update. Let me know if you have thoughts or questions.

Thanks –
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949
http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Tuesday, October 21, 2014 1:11 PM
To: 'Phillip Payne'; Steve Carter
Cc: Candy McGarry
Subject: RE: Zenith Quest International

ZQI wishes to conduct 80,000 SF of warehouse for wholesale storage and distribution of various goods, including (but not limited to) ammunition. Other products may include non-toxic cleaning agents. The applicant team has also stated that they intend to conduct light assembly and/or modification of handheld firearms, which seem to be a required step in their larger wholesale operation(s).

An additional 10,000 SF of office space is also proposed, to accommodate 30 proposed employees.

Tim Padalino
[434]-263-7090

[redacted]

On Tue, Oct 21, 2014 at 12:40 PM, Steve Carter <SCarter@nelsoncounty.org> wrote:

Phil,

The site plan is too large for your in box to receive. Do you want me to make you paper copies, which is probably not necessary, but I am happy to do so.

Steve

Stephen A. Carter

Nelson County Administrator

P. O. Box 336

84 Courthouse Square

Lovingston, VA 22949

Ph. (434) 263-7001

Fx. (434) 263-7004

Tim Padalino

From: Tim Padalino
Sent: Tuesday, October 21, 2014 6:04 PM
To: 'Mary Kathryn Allen'
Subject: RE: question on the Zenith Quest International

Hi Mary Kathryn,

Great questions – thanks for the inquiry. My research on the subject property indicates that the property has "always" been zoned M-2. The Zoning Ordinance was adopted in 1977, so presumably that's when this M-2 zoning goes back to.

I had heard that the property had been rezoned to Industrial (M-2) to accommodate a proposed Blue Ridge Builders Supply location (which was never built, of course); however, there is no record of a rezoning application and no record of this parcel previously being zoned Agricultural, Residential, or anything other than M-2.

There was a rezoning application in 1997 to rezone from M-2 to R-2, but that was denied or withdrawn (I can't remember which, I'll try to look that up prior to tomorrow's meeting).

I hope this helps; it's more of a "statement of fact" than it is an "explanation," because it's hard to explain why there would be M-2, A-1, and R-1 zoning all right next to each other like that. But that's the way it is and has been, whether it's logical or not.

Let me know if you have other questions. Thanks again!

See you tomorrow,
Tim

Tim Padalino
[434]-263-7090

From: Mary Kathryn Allen [mailto:mkallen@vaems.org]
Sent: Tuesday, October 21, 2014 3:44 PM
To: Tim Padalino
Subject: question on the Zenith Quest International

Tim,

I was looking over the material for the Zenith Quest Major Site Plan. I think from the map I can in vision the location. However, I was wondering if you know how that area or why it was ever zoned Industrial (M-2) to begin with? Do you know who previously owned the property and did they get it re-zoned to M-2 and if so for what purpose? I am just wondering why a wooded area (if I am correct on the location) would be zoned M-2 around so much residential. Could you shed some light on this for me before the meeting tomorrow night?

Thanks
Mary Kathryn

Mary Kathryn Allen
BREMS Field Coordinator

1900 Tate Springs Road, Suite 14
Lynchburg, Virginia 24501
(434) 947-5934 Office
(434) 947-3987 Fax

Tim Padalino

From: Tim Padalino
Sent: Monday, September 29, 2014 11:41 AM
To: Steve Carter; 'Savanna Funkhouser'
Subject: RE: Request from Delegate Bell re: Zenith Quest International

Hello Ms. Funkhouser – greetings from Lovingston.

Thank you for your inquiry regarding the proposed Zenith Quest International (ZQI) project on Route 151 in Afton. Steve's informative response is certainly sufficient; but as requested, I am happy to provide some additional information.

The Nelson County Planning Commission (PC) will be reviewing this Major Site Plan at their upcoming October 22nd public meeting. That Site Plan review process and approval authority have been delegated to the PC by the Board of Supervisors (in 2010), because it is not a legislative act – and it essentially only requires that the applicant satisfactorily address all of the information required on the Major Site Plan Checklist (per the County's Zoning Ordinance).

As Steve pointed out, it is typical for a Site Plan to be approved by the PC the first time it is formally reviewed as an official agenda item. It (almost) goes without saying that such a quick review/approval process is only possible if the applicant has submitted a completed application along with a site plan (completed by a licensed professional and inclusive of all required contents and info).

In the case of ZQI's "Afton Mountain" proposal, the project team (including the owners and their landscape architecture/engineering firm – Roudabush, Gale & Associates) has been proactive in their preparation and submission of a Major Site Plan. The County has also been very responsive and supportive in helping the project team clearly understand the numerous procedures and policies that pertain to their proposal.

For example, the ZQI project was included on the Site Plan Review Committee's meeting agenda (8/13) without any (draft) site plan drawings or any other application materials having been submitted at the time. That initial courtesy review helped to improve the efficiency of the application process; and dialogue at that review meeting also led to a formal site visit to the property by the Planning Commission (8/28), which was very helpful towards improving the County's understanding of the proposed project.

With all of that in mind, it is fairly likely that ZQI's Major Site Plan for the "Afton Mountain" project will be approved by the PC on October 22nd. I must disclaim that I have not yet reviewed (in detail) the recently-submitted Major Site Plan, and am not familiar with the plan's conformity with our checklist. But Roudabush, Gale & Associates have proven to be highly professional thus far, and I generally expect my pending review will find the Major Site Plan to be complete.

I can also share a some comments about the actual project itself (separate from the review process). The Site Plan Review Committee, Planning Commission, and County staff have all engaged the project team about questions and issues they feel are most relevant and pertinent, including:

- Projected traffic patterns associated with the warehouse and office operations, and any potential impacts on road safety and mobility, with particular respect to VDOT's recently-completed "Route 151 Corridor Study" which included focus on this particular area as being of highest concern and priority;
- Potentially incompatible land uses relative to neighboring properties, which is a function of that small area containing Agricultural (A-1), Residential (R-1), and Industrial (M-2) zoning districts in immediate proximity to one another, with specific request to lights, noise, and other typical "nuisance" questions; and

- Potential changes to the appearance and/or character of the area, with specific respect to Route 151's successful, expanding, high-profile tourism industry and to the project's location at the gateway into Nelson County (in Afton at the intersections of Route 6 and Route 151, which are both designated Virginia Scenic Byways).

ZQI and their consultants have been understanding and responsive to all of those topics. With regards to neighboring properties, scenic byways, and associated issues, the Site Plan proposes the following details:

- some (partial) retention of an existing woodlot that presently separates the project from neighboring residences (note: this proposed "tree save" area correlates with the required 20' minimum setback);
- some new landscaping materials along Route 151, including canopy trees and understory trees utilizing an attractive native plant palette; and
- the location of the one-story, 80,000 SF warehouse meets the minimum required setbacks, and also provides some additional setback area by choice (Ordinance requires minimum of 20' setback from neighboring properties; Site Plan indicates the two corners of the warehouse closest to the adjoining properties will be 42.9 feet away and 69.2 feet away, respectively).

With those details in place, the project does seem to have made an effort to mitigate some of the site-specific changes that are inherently associated with any large industrial project.

However, some important additional details remain to be properly addressed – including a lighting plan with the location and type/details of proposed light fixtures (Checklist Item "V"); and additional transportation information related to the warehousing / distribution operation and the office operation.

The latter will require continued assistance from VDOT, and may also require that a "Traffic Impact Assessment" report or other analysis be prepared by an appropriately-licensed professional. At the 8/13 Site Plan Review Committee meeting, the ZQI project team emphasized that the project would only result in 6 vehicular trips per month – which seems unclear, and which should be examined further and understood much better.

Finally, please note this proposed project's proximity to a recently-funded "HSIP" roadway improvement project, which will allow VDOT to greatly improve the Route 6 – Route 151 intersection just south of the proposed project. The ZQI project team has noted that their proposed entrance (and other site plan details) fully consider and respond to the planned, funded VDOT project, including:

- providing VDOT with a grading easement for erosion and sediment control during construction of the HSIP intersection project, and
- dedicating an expanded ROW to VDOT to accommodate the roadway improvements

However, VDOT has stated that their engineered plans for the "HSIP" intersection improvement were prepared prior to this proposed ZQI project, and thus do not account for any changes in traffic patterns or volumes which may result from the ZQI project. As such, VDOT may also be able to further provide assistance to the applicants (and to Nelson County) by reviewing how the proposed ZQI project might interact with the proposed intersection upgrades, prior to construction (which is presently slated for 2017).

I hope this information is helpful; I understand this response is exceptionally detailed, but I did want to provide as much pertinent information as possible. If anything I've shared gives rise to the need for clarification or additional information, please let me know at your convenience. I'm happy to provide whatever assistance I can.

And please note that everything that the ZQI project team has submitted is public record and completely open for review by the public, upon request. If a copy of the Major Site Plan would be helpful, we can certainly arrange for that to be provided.

Thanks very much; sincerely,

Tim

Tim Padalino
[434]-263-7090

From: Steve Carter
Sent: Friday, September 26, 2014 5:06 PM
To: Savanna Funkhouser
Cc: Tim Padalino
Subject: RE: Request from Delegate Bell re: Zenith Quest International

Ms. Funkhouser,

Good afternoon. I hope you and Del. Bell are doing well.

The subject of your inquiry is in process. My current understanding is the company has submitted a final site plan for its project to the County's Planning and Zoning department. The site plan will be formally reviewed on 10-8 by the local site plan committee and then move forward for final approval consideration on October 22nd to the County's Planning Commission. Assuming Planning Commission approval is completed on 10-22 (which is likely if it clears the site plan committee, otherwise Planning Commission consideration would then be the 4th Wednesday in November at 7 p.m.)

The property's zoning does provide for the use you've described to be approved as a by-right use (i.e. nothing further than site plan approval, building permit approval and the associated state approvals, i.e. E&S, Stormwater, Water/Sewer, and, transportation access).

As to the company's specific undertakings, Tim Padalino, the County's Director of Planning and Zoning is best positioned to advise on this. He is copied on this response and I've related your message to him with the request that he follow up too, if my response(s) aren't sufficient. I will note that your description seems to adequately describe what the company will be doing. Its plans also call for an approximate 10,000 sf office area in addition to the large warehouse they plan to construct.

Lastly, my understanding is that the company is Zenith Quest International.

Please advise re: any additional questions you may have or further inquiry on specifics (Tim – please follow up and provide Ms. Funkhouser with a more detailed description).

Best regards,

Steve

Stephen A. Carter
Nelson County Administrator
P. O. Box 336
84 Courthouse Square
Lovingston, VA 22949
Ph. (434) 263-7001
Fx. (434) 263-7004

From: Savanna Funkhouser [mailto:savanna@bellfordelegate.com]
Sent: Friday, September 26, 2014 2:39 PM
To: Steve Carter
Subject: Request from Delegate Bell re: Zenith Quest International

Hello, Mr. Carter,

I hope that you are well.

Delegate Bell has had a couple of constituents contact him with regard to some concerns about a potential Zenith Quest International facility that they believe is planned to be built along 151 in Nelson County. According to the constituents, they understand that Zenith has purchased a 10 acre parcel of land that fronts 151 and is zoned M-2, Heavy Industrial. As these constituents understand it, it is the intention of Zenith to build a warehouse for production and/or distribution of their "sporting, tactical, and defense products."

Delegate Bell hadn't heard anything about this facility, and asked me to reach out to you to see if you might be able to confirm Zenith's purchase and/or interest in building a facility in this area. Any additional information that you might be able to provide would be greatly appreciated.

Thanks so much,

Savanna Funkhouser
Legislative Aide to Delegate Bell

Tim Padalino

From: Tim Padalino
Sent: Monday, June 01, 2015 4:06 PM
To: 'Smith, Rachael A.'
Cc: Stormy Hopkins
Subject: RE: zenith quest
Attachments: RE: from Ray at Zenith Quest re: possible basement; RE_ from Ray at Zenith Quest re_ possible basement.pdf

Please see the attached determination I issued on May 15th (attached in both Outlook format and Adobe PDF format).

This issue re: testing assembled/modified weapons was, in fact, discussed by members of Zenith Quest as well as Planning Commissioners at numerous points during the Site Plan review process, which began in August 2014 and which concluded (with County approval) in March 2015.

Take a look at the attached determination and let me know if you have other questions or want to discuss anything. Thanks,

Tim

Tim Padalino
[434]-263-7090

From: Smith, Rachael A. [mailto:rsmith@newsadvance.com]
Sent: Monday, June 01, 2015 3:58 PM
To: Tim Padalino
Subject: zenith quest

Apparently, the County has determined that in indoor shooting range for testing of the guns (these ones: http://zenithfirearms.com) is an allowable use on the property as well.

This is what Justin Shimp told me. I don't remember the planning commission or ZQ talking about this...ever.

is this true?

Rachael Smith
Nelson County Times Reporter
(434)385-5482

Tim Padalino

From: Tim Padalino
Sent: Wednesday, October 08, 2014 2:23 PM
To: Steve Carter; Smith, Rachael A. (rsmith@newsadvance.com)
Subject: RE: ammunition storage facility

Steve,

I've provided Rachel with detailed information in messages sent yesterday and again today; but I can additionally provide contact info for the applicant(s) for the ZQI "Afton Mountain" Major Site Plan (as it has been provided to the County on their application):

Mr. Hanri Kaya, CFO, Zenith Quest International, LLC
(540)-943-9424
hkaya@zenithquestintl.com

and

Mr. Ray Miles, Executive Vice President & US Market, Zenith Quest International, LLC
ray@zenithquestintl.com

Tim Padalino
[434]-263-7090

From: Steve Carter
Sent: Wednesday, October 08, 2014 1:41 PM
To: Smith, Rachael A.
Cc: Tim Padalino
Subject: RE: ammunition storage facility

Rachel,

I don't know anyone from Zenith Quest. You can follow up again with Tim Padalino (copied herein), as my understanding is the company was on the agenda for today's site plan review meeting and, as such, there should now be additional information as to what the business will actually entail. I did not want to relate to you input that is incorrect on what the business's operations will entail, as I have not, as noted, been directly involved with interactions between the County and the business. This has been all through the Department of Planning and Zoning and, possibly, the Building Official's office.

Per this response, I'm also asking Tim to follow up with you again, per my assumption that more specific information was communicated by the company to the County at this morning's site plan review meeting.

Steve

Stephen A. Carter
Nelson County Administrator
P. O. Box 336
84 Courthouse Square
Lovingston, VA 22949

Ph. (434) 263-7001
Fx. (434) 263-7004

From: Smith, Rachael A. [mailto:rsmith@newsadvance.com]
Sent: Wednesday, October 08, 2014 9:28 AM
To: Steve Carter
Subject: RE: ammunition storage facility

thanks Steve, do you happen to have any contact information for the person at Zenith Quest International who would know more about the project?

From: Steve Carter [mailto:SCarter@nelsoncounty.org]
Sent: Tuesday, October 07, 2014 12:08 PM
To: Smith, Rachael A.
Cc: Tim Padalino
Subject: RE: ammunition storage facility

Rachel,

Good morning. I've copied this response to the County's Director of Planning and Zoning, Tim Padalino, inclusive of the request that he provide you with specifics on your inquiry.

The business, Zenith Quest International, will have a larger foot print than 8,000 sf. It is a by-right use because the business location is in/on an industrially zoned property. By right means there are no requirements for special permits that would entail public hearings by the Planning Commission and Board of Supervisors in order for the use to be approved to be located in the County. Rather the use (by right) can be administratively approved following compliance with the zoning ordinance's requirements (i.e. submittal and public review and approval of a major site plan by the Planning Commission), There will also be other approvals the business will be required to obtain. These entail building permit(s), land disturbance and storm water permits, business license, water and sewer permits. From what I know of the intended use the previously cited requirements are the requirements the business must meet.

My "understanding" (I haven't seen the site plan or building permit applications) is the business plans to construct a 80,000 sq. ft. warehouse and a two story, 10,000 sq. ft. office building.

Tim can advise you on the specifics of what the business's operations will entail. There is a site plan review meeting tomorrow (10-8) at the Planning and Zoning office, which includes review of ZQI's site plan and, thereafter, unless the site plan is determined to be deficient through the site plan review meeting, which would require re-review, the final site plan is submitted to the Planning Commission for approval consideration.

Steve

Stephen A. Carter
Nelson County Administrator
P. O. Box 336
84 Courthouse Square
Lovingston, VA 22949
Ph. (434) 263-7001
Fx. (434) 263-7004

From: Smith, Rachael A. [mailto:rsmith@newsadvance.com]
Sent: Tuesday, October 07, 2014 9:16 AM

To: Steve Carter
Subject: ammunition storage facility

Hi Mr. Carter,

I got a call last week from someone telling me that there is going to be an 8,000 sq. foot ammunition storage facility in Avon. Is this true? If so, what do you know about it?

thanks!

Rachael Smith
Nelson County Times Reporter
(434)385-5482

Tim Padalino

From: Tim Padalino
Sent: Wednesday, October 08, 2014 1:24 PM
To: 'Smith, Rachael A.'
Subject: RE: ammunition storage facility

Hi Rachel,

You're welcome. And yes, the ZQI applicant team has indicated that the site would be used for storage / distribution of ammunition, as well as other types of products; and also for light assembly of handheld firearms.

At today's Site Plan Review Committee meeting, the applicant's Major Site Plan was reviewed by County staff, a representative from the Planning Commission, Alyson Sappington of the TJ Soil & Water Conservation District, and Jeff Kessler of VDOT. Those agencies provided the applicant team with review comments relative to their respective responsibilities and areas of expertise.

David Thompson, the Nelson County Building Official, also provided written comments but did not attend. There were other members of the Site Plan Review Committee who received the plans, but did not attend the meeting or provide any written comment(s).

The majority of the meeting involved a review of the proposed project's compliance with requirements and specifications relating to exterior lighting; signage; landscaping and screening; and parking. There was also a review of the proposed project's plans to address erosion and sediment control requirements (during construction) and also stormwater management (during ongoing site operations). Finally, there was a review of the estimated traffic volumes and patterns associated with the proposed use.

I hope this is helpful; and feel free to let me know if I might be able to clarify anything or provide further assistance.

Thanks,
Tim

Tim Padalino
[434]-263-7090

From: Smith, Rachael A. [mailto:rsmith@newsadvance.com]
Sent: Wednesday, October 08, 2014 9:26 AM
To: Tim Padalino
Subject: RE: ammunition storage facility

thanks Tim! So just to be clear, will the facility be used for an ammunition storage site as someone led me to believe? Just want to make sure I have the facts down. Also will you give me a recap of what you all discuss at the meeting today? Since someone gave me a call to tell me about this and was concerned, I figure I'd write up something short and sweet to let people know what's going on.

thanks!

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Tuesday, October 07, 2014 1:30 PM

To: Steve Carter; Smith, Rachael A.
Subject: RE: ammunition storage facility

Thank you for providing that summary, Steve. I do not have much additional information to provide at this time, but here is some basic info:

The property is zoned M-2 (Industrial District), which is, "*primarily for industrial operations and for heavy commercial operations, which may create some nuisance, and which are not particularly compatible with residential, institutional, or retail commercial uses.*" (Article 9. Industrial District M-2 "Statement of intent.")

As Steve alluded to, the Nelson County Site Plan Review Committee will review the submitted Major Site Plan on Wednesday, Oct. 8th (tomorrow morning); and the Nelson County Planning Commission will review the Major Site Plan on Wednesday, Oct. 22nd.

Rachel, if you have additional questions or need assistance with anything, please do not hesitate to contact me (or Stormy); we're happy to help.

Thanks,
Tim

Tim Padalino
[434]-263-7090

From: Steve Carter
Sent: Tuesday, October 07, 2014 12:08 PM
To: Smith, Rachael A.
Cc: Tim Padalino
Subject: RE: ammunition storage facility

Rachel,

Good morning. I've copied this response to the County's Director of Planning and Zoning, Tim Padalino, inclusive of the request that he provide you with specifics on your inquiry.

The business, Zenith Quest International, will have a larger foot print than 8,000 sf. It is a by-right use because the business location is in/on an industrially zoned property. By right means there are no requirements for special permits that would entail public hearings by the Planning Commission and Board of Supervisors in order for the use to be approved to be located in the County. Rather the use (by right) can be administratively approved following compliance with the zoning ordinance's requirements (i.e. submittal and public review and approval of a major site plan by the Planning Commission), There will also be other approvals the business will be required to obtain. These entail building permit(s), land disturbance and storm water permits, business license, water and sewer permits. From what I know of the intended use the previously cited requirements are the requirements the business must meet.

My "understanding" (I haven't seen the site plan or building permit applications) is the business plans to construct a 80,000 sq. ft. warehouse and a two story, 10,000 sq. ft. office building.

Tim can advise you on the specifics of what the business's operations will entail. There is a site plan review meeting tomorrow (10-8) at the Planning and Zoning office, which includes review of ZQI's site plan and, thereafter, unless the site plan is determined to be deficient through the site plan review meeting, which would require re-review, the final site plan is submitted to the Planning Commission for approval consideration.

Steve

Stephen A. Carter
Nelson County Administrator
P. O. Box 336
84 Courthouse Square
Lovingston, VA 22949
Ph. (434) 263-7001
Fx. (434) 263-7004

From: Smith, Rachael A. [mailto:rsmith@newsadvance.com]
Sent: Tuesday, October 07, 2014 9:16 AM
To: Steve Carter
Subject: ammunition storage facility

Hi Mr. Carter,

I got a call last week from someone telling me that there is going to be an 8,000 sq. foot ammunition storage facility in Avon. Is this true? If so, what do you know about it?

thanks!

Rachael Smith
Nelson County Times Reporter
(434)385-5482

Tim Padalino

From: Tim Padalino
Sent: Monday, August 25, 2014 10:39 AM
To: 'Resort Reservations'; Linda Russell; Harman, Michael (komsinva@gmail.com); mkallen@vaems.org; ehunt@mountaintopmontessori.org
Cc: Stormy Hopkins
Subject: FW: Zenith Quest - Meeting with Planning Commissioners

Hello Planning Commissioners,

Ammy George of Roudabush, Gale, and Associates will be on site at the Zenith Quest International property the morning of August 28th at 10:00am. This is the morning after the PC meeting.

If you plan to attend, please respond letting everyone know ASAP. If we need to post any public notice (in P&Z office, Courthouse, and online) that would need to occur today.

Thanks in advance,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Monday, August 25, 2014 7:32 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Good morning Tim,

Thursday, August 28 at 10:00 works. We will see you out on site then.

Ammy

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Friday, August 22, 2014 2:28 PM
To: Ammy George
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

I've heard back from (some of) the Planning Commissioners. The following two options are apparently what works best please review your schedule and let me know if either of these are doable on your end:

Thursday morning, Aug. 28th (approx...10:00am?)
Tuesday afternoon, Sept. 2nd (approx.. 3:30pm?)

I'll look for your reply. Hopefully one of these two dates works.

Thanks in advance,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, August 21, 2014 12:57 PM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Tim,

Next Tuesday, August 26, works best for us.

Ammy

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, August 21, 2014 11:48 AM
To: Ammy George
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

Here are the questions I've received from the PC as of right now:

1. 1. What is the specific details of the existing buffer along the rear and rear sides of the property? Specifically, what vegetation is proposed for removal / clearing, and what existing vegetation will remain? If existing vegetative buffer is removed, what new landscaped buffer between the applicant's property and adjacent properties will be installed?

2. 2. The lane behind Zenith's property appears to be a privately owned road (hence the brown road sign). I assume this means that the Zenith property is immediately adjacent to the private properties along that lane (i.e. no VDOT r.o.w. between Zenith Quest and the residential properties zoned A-1). Is this correct?

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I've also received numerous other questions (in discussion, not in writing) about the following issues, some of which may not apply to the upcoming site visit:

- ATF or other requirements for security and lighting: where will the exterior lighting be, what type of light fixtures will be used, and how will that affect neighboring properties and/or public ROW?
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- Rockfish Valley Highway as Designated Virginia Scenic Byway: what landscaping and/or other improvements will be installed along the public ROW of Rte. 151, which is the highest profile roadway for Nelson County residents and visitors, esp. this site which is part of the gateway into Nelson County from Rte. 250 and from I-64?
- Traffic and transportation issues: Has the applicant prepared and/or submitted an engineered ITE Trip Generation Report? Will the number of trips exceed more than 6 per month? How can the County accurately assess the project's effects on the public road system (mobility and safety)?

Finally, I will write the Planning Commissioners and offer the following possible dates for a site visit. Please let me know if you any of these options will not work:

Tuesday Aug. 26th
Thursday 28th
Friday 29th
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Thanks in advance; I'll follow up with you ASAP after hearing back form the PC members.

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From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, August 21, 2014 9:02 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Tim, thank you once again for coordinating with us. We would like the meeting to be as soon as possible. But, we ask that you set that meeting up so that we have at least three days to prepare once we get the questions/concerns from the Planning Commission members.

Ammy

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Sent: Wednesday, August 20, 2014 5:22 PM
To: Ammy George
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

Thank you for your correspondence. Yes, I can compile questions from the Planning Commissioners.

Have a date and time been set for the site visit? I'm asking both to know for my own attendance, and also to understand how quickly you're expecting to receive the questions.

I will circle back to this project tomorrow and provide more information, as requested.

Thanks in advance,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Tuesday, August 19, 2014 1:35 PM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: Zenith Quest - Meeting with Planning Commissioners

Hi Tim,

We are getting ready for the on-site meeting with the Planning Commissioners. One of the topics that has come up is the type of questions/concerns that the Planning Commissioners are hoping to have answered. We would like the meeting to be a productive one with a majority of their questions/concerns answered, especially ones in which the on-site visit are the most helpful for clarification. Can you put together a list of the questions/concerns the Planning Commission has so that we can adequately address them?

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Friday, August 15, 2014 1:34 PM
To: 'Ammy George'
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com); Stormy Hopkins
Subject: RE: Zenith Quest Follow Up

Thanks very much, Ammy.

I will forward these inquiries to David Thompson, Building Code Official, and request that he also communicate with the Fire Marshall for our region.

Thanks again, and please let me know if the County can provide any assistance and/or guidance over the coming weeks, as you prepare the Site Plan for submission.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, August 13, 2014 2:52 PM
To: Tim Padalino
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com)
Subject: Zenith Quest Follow Up

Tim,

Thank you for meeting with us today. As you suggested, I am including the questions that I have about the fire access around the building and the fire flow requirements.

This is for an 80,000 sf warehouse building (one-story) along with 10,000 sf of office (2-story); both sections will have sprinklers. (The site plan is attached.) The warehouse will be used primarily for light assembly of gun parts with storage of cleaning materials as part of the building's functions. The site will have a well, as it has no access to public water.

- What is the Use Group for the building?
  - What are the building requirements for that Use Group?
- What are the requirements for fire access?
  - Would we be able to utilize Family Lane for fire access if necessary?
- What is the fire flow required for Use Group?
  - Volume and duration?
  - Any special requirements for sites with wells?

If you have any questions or comments, please feel free to contact me.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Friday, August 15, 2014 1:37 PM
To: David Thompson; Debbie Harvey
Cc: Stormy Hopkins
Subject: FW: Zenith Quest Follow Up
Attachments: Zenith Quest Site Plan.pdf

Hi David,

The "pre-applicant" from this month's Site Plan Review Committee meeting, named Zenith Quest International, has provided the following questions for you and the Fire Marshall to respond to (see below).

I have also attached a very preliminary Site Plan drawing (which we received yesterday, after the Site Plan Review Committee Meeting). It may be helpful for reference.

Please review their requests, and follow up directly with them (and please copy Stormy and I, as well) whenever you are ready to provide them guidance.

Thanks in advance!
Tim

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Friday, August 15, 2014 1:34 PM
To: 'Ammy George'
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com); Stormy Hopkins
Subject: RE: Zenith Quest Follow Up

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I will forward these inquiries to David Thompson, Building Code Official, and request that he also communicate with the Fire Marshall for our region.

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434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Friday, August 15, 2014 2:28 PM
To: Steve Carter
Subject: FW: Zenith Quest Follow Up
Attachments: Zenith Quest Site Plan.pdf

Hi Steve,

I won't be able to come by your office this afternoon, after all. I need to head to Afton to catch Tommy before he's gone for the weekend, since he seems to be very focused on this week's Site Plan Review Committee meeting. (I also need to take some photos of the proposed "Batesville Gym" Activity Center SUP application.)

In lieu of me visiting and discussing the project this week, please see below Zenith Quest International's information. Their consultants have provided some questions for David Thompson (I've followed up with him accordingly), and they've also provided a very preliminary site plan for discussion. They haven't submitted anything (complete site plan or completed application).

This is all just FYI, but still wanted to give you some followup before the work week is over.

I hope this is helpful, and let me know what your questions are. I'm interested in hearing your thoughts on this project and this review process.

Thanks,

Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, August 13, 2014 2:52 PM
To: Tim Padalino
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com)
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Tim Padalino

From: Tim Padalino
Sent: Thursday, August 21, 2014 11:48 AM
To: 'Ammy George'
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

Here are the questions I've received from the PC as of right now:

1. 1. What is the specific details of the existing buffer along the rear and rear sides of the property? Specifically, what vegetation is proposed for removal / clearing, and what existing vegetation will remain? If existing vegetative buffer is removed, what new landscaped buffer between the applicant's property and adjacent properties will be installed?

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4. 4. Is there currently a local person or agency who oversees security issues in Nelson County -- perhaps through periodic inspection? If so, who would that be? (The Federal Government doesn't have a very good record in some enforcement areas.)

I've also received numerous other questions (in discussion, not in writing) about the following issues, some of which may not apply to the upcoming site visit:

- ATF or other requirements for security and lighting: where will the exterior lighting be, what type of light fixtures will be used, and how will that affect neighboring properties and/or public ROW?
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- Traffic and transportation issues: Has the applicant prepared and/or submitted an engineered ITE Trip Generation Report? Will the number of trips exceed more than 6 per month? How can the County accurately assess the project's effects on the public road system (mobility and safety)?

Finally, I will write the Planning Commissioners and offer the following possible dates for a site visit. Please let me know if you any of these options will not work:

Tuesday Aug. 26th
Thursday 28th
Friday 29th
Mon. Sept. 1st
Tues. 2nd

Thanks in advance; I'll follow up with you ASAP after hearing back form the PC members.

Tim Padalino
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From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, August 21, 2014 9:02 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Tim, thank you once again for coordinating with us. We would like the meeting to be as soon as possible. But, we ask that you set that meeting up so that we have at least three days to prepare once we get the questions/concerns from the Planning Commission members.

Ammy

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Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
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Tim Padalino

From: Tim Padalino
Sent: Thursday, August 21, 2014 11:53 AM
To: 'Resort Reservations'; Linda Russell; Harman, Michael (komsinva@gmail.com); mkallen@vaems.org; ehunt@mountaintopmontessori.org
Cc: Stormy Hopkins
Subject: FW: Zenith Quest - Meeting with Planning Commissioners

Hello Planning Commissioners,

Please see my message below to Ammy George, who is working with the property owners for the proposed warehouse and office facility in Afton, and developing a Major Site Plan for submission in the next month or two.

(Linda and I met with the consultants, Ammy and Bill Ledbetter, and the property owners, Peter Kutlay and Ray Miles, at this month's Site Plan Review Committee meeting -- even though they have not submitted any applications or materials to the County.)

Specifically, please let me know which of the following dates you are available to meet on-site, to better understand the site's existing conditions, the proposed facility, and the surrounding area:

Tuesday Aug. 26th
Thursday 28th
Friday 29th
Mon. Sept. 1st
Tues. 2nd

Thank you in advance. If you wish to attend, please let me know which dates work for you ASAP so I can relay that to Ammy; and if you do not plan to attend a site visit at this time, please let me know that as well, so that we can move forward with the coordinations.

As always, thank you for your time and attention - - -

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434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Monday, August 25, 2014 10:11 AM
To: 'Ammy George'
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hello Ammy,

Very good. I will notify the Planning Commissioners, and I will plan to see you this Thursday morning in Afton.

Thank you,
Tim

Tim Padalino
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From: Ammy George [mailto:AGeorge@roudabush.com]
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Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Tim,

Next Tuesday, August 26, works best for us.

Ammy

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, August 21, 2014 11:48 AM
To: Ammy George
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

Here are the questions I've received from the PC as of right now:

1. 1. What is the specific details of the existing buffer along the rear and rear sides of the property? Specifically, what vegetation is proposed for removal / clearing, and what existing vegetation will remain? If existing vegetative buffer is removed, what new landscaped buffer between the applicant's property and adjacent properties will be installed?

2. 2. The lane behind Zenith's property appears to be a privately owned road (hence the brown road sign). I assume this means that the Zenith property is immediately adjacent to the private properties along that lane (i.e. no VDOT r.o.w. between Zenith Quest and the residential properties zoned A-1). Is this correct?

3. 3. Zenith has an FFL-8 license from ATF. County residents might like to be reassured about the required security measures and inspections under this licensure. Is this information available? May the PC ask for it?

4. 4. Is there currently a local person or agency who oversees security issues in Nelson County -- perhaps through periodic inspection? If so, who would that be? (The Federal Government doesn't have a very good record in some enforcement areas.)

I've also received numerous other questions (in discussion, not in writing) about the following issues, some of which may not apply to the upcoming site visit:

- ATF or other requirements for security and lighting: where will the exterior lighting be, what type of light fixtures will be used, and how will that affect neighboring properties and/or public ROW?
- "Light assembly" of weaponry: will these modified or assembled guns be tested on site, and if so, how will the testing facility operate? Would it be an interior, soundproof facility?
- Rockfish Valley Highway as Designated Virginia Scenic Byway: what landscaping and/or other improvements will be installed along the public ROW of Rte. 151, which is the highest profile roadway for Nelson County residents and visitors, esp. this site which is part of the gateway into Nelson County from Rte. 250 and from I-64?
- Traffic and transportation issues: Has the applicant prepared and/or submitted an engineered ITE Trip Generation Report? Will the number of trips exceed more than 6 per month? How can the County accurately assess the project's effects on the public road system (mobility and safety)?

Finally, I will write the Planning Commissioners and offer the following possible dates for a site visit. Please let me know if you any of these options will not work:

Tuesday Aug. 26th
Thursday 28th
Friday 29th
Mon. Sept. 1st
Tues. 2nd

Thanks in advance; I'll follow up with you ASAP after hearing back form the PC members.

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, August 21, 2014 9:02 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Tim, thank you once again for coordinating with us. We would like the meeting to be as soon as possible. But, we ask that you set that meeting up so that we have at least three days to prepare once we get the questions/concerns from the Planning Commission members.

Ammy

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Wednesday, August 20, 2014 5:22 PM
To: Ammy George
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest - Meeting with Planning Commissioners

Hi Ammy,

Thank you for your correspondence. Yes, I can compile questions from the Planning Commissioners.

Have a date and time been set for the site visit? I'm asking both to know for my own attendance, and also to understand how quickly you're expecting to receive the questions.

I will circle back to this project tomorrow and provide more information, as requested.

Thanks in advance,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Tuesday, August 19, 2014 1:35 PM
To: Tim Padalino

Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: Zenith Quest - Meeting with Planning Commissioners

Hi Tim,

We are getting ready for the on-site meeting with the Planning Commissioners. One of the topics that has come up is the type of questions/concerns that the Planning Commissioners are hoping to have answered. We would like the meeting to be a productive one with a majority of their questions/concerns answered, especially ones in which the on-site visit are the most helpful for clarification. Can you put together a list of the questions/concerns the Planning Commission has so that we can adequately address them?

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Thursday, August 28, 2014 3:33 PM
To: 'Ammy George'
Cc: Ray Miles (ray@zenithquestintl.com)
Subject: RE: VDOT Plans for Rte. 151 and Rte. 6 Intersection

Thanks very much, Ammy. I appreciate you sharing these documents.

And thanks to you, Ray, and Peter for meeting us this morning, walking portions of the site, and answering everyone's questions. That was helpful (not just for me, but for the Planning Commissioners as well).

Please let me know if have any questions or want to coordinate on anything, as you prepare the site plan.

To that end, have you been able to coordinate with David Thompson (Building Code Official) and/or the Fire Marshall? I know you had asked about them earlier, and I referred you to them, but I am not sure where things stand or if you've received further assistance from them.

Regardless, thanks once again; and we're here anytime you have questions or want to discuss anything.

Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, August 28, 2014 11:40 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com)
Subject: VDOT Plans for Rt 151 and Rt 6 Intersection

Tim, here are the intersection improvement plans for the Rt 151/Rt 6 Intersection. The Zenith Quest property show up on Page 2; the proposed taper to meet back into the existing pavement ends close to our northern property line. I am showing the proposed pavement widening on the site plan and coordinating our proposed improvements with those of VDOT.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Thursday, September 04, 2014 11:22 AM
To: 'Ammy George'; David Thompson (dthompson@nelson.org)
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Question for Zenith Quest

Thanks for the inquiry, Ammy. David and I will work on it and follow up with you as soon as we can.

Thanks - - -

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, September 03, 2014 1:46 PM
To: Tim Padalino; David Thompson (dthompson@nelson.org)
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: Question for Zenith Quest

Tim and David,

As I am preparing the site plan, I still need a question answered. Specifically, we need to know if we need to provide a fire hydrant(s) and access around the building. The building needs to and will have a sprinkler system. This being the case, what kind of fire protection, if any, do we need to provide outside of the building?

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Thursday, September 04, 2014 11:29 AM
To: David Thompson
Subject: FW: Question for Zenith Quest

Hi David,

Could you help get Kenneth (Fire Marshall?) involved in this conversation (below)? I think he would need to weigh in before the applicants can be confident that their Site Plan will be compliant with applicable fire code regulations.

Ms. Ammy George, who is working on the Site Plan, provided the questions (below) yesterday afternoon. She's trying to get some guidance on fire code questions, before a Site Plan can be drawn and submitted to Planning & Zoning prior to September 19th.

Thanks in advance for helping to get right people involved with these questions – much appreciated!

Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, September 03, 2014 1:46 PM
To: Tim Padalino; David Thompson (dthompson@nelson.org)
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: Question for Zenith Quest

Tim and David,

As I am preparing the site plan, I still need a question answered. Specifically, we need to know if we need to provide a fire hydrant(s) and access around the building. The building needs to and will have a sprinkler system. This being the case, what kind of fire protection, if any, do we need to provide outside of the building?

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Tuesday, October 14, 2014 12:16 PM
To: 'Ammy George'; David Thompson
Subject: RE: Grading Permit Question

Hi Ammy,

No, that is not permissible per the Nelson County Zoning Ordinance.

13-2 *Issuance of permits by County.*

No building permit, or other County permit required prior to the initiation of construction of any building or structure or development, shall be issued by any officer or employee of the County for any development which is subject to the provisions of this article until a site plan has been approved. Compliance with the terms contained on any site plan shall be deemed a condition of each and every permit issued by the County. Any permit issued prior to the approval of a site plan is automatically null and void. O2010-5

Therefore, the approved Major Site Plan, inclusive of approved E & S Control Plan, is required prior to County issuance of a land disturbing permit, building permit, etc. There is also the question of obtaining "permit coverage" for the Virginia Stormwater Management Program, which is required due to the amount of disturbance on this project.

I hope this is helpful; but if I can clarify anything, or if you want to discuss anything, please let me know.

Thanks;
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Monday, October 13, 2014 4:01 PM
To: Tim Padalino; David Thompson
Subject: Grading Permit Question

Good afternoon,

Can grading permit can be obtained before the site plan is approved? Also, for the performance bond, does this bond cover the storm sewer, water quality measures and erosion control measures?

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Wednesday, October 15, 2014 12:59 PM
To: 'Ammy George'; Jeffery B. Kessler P.E. (JefferyB.Kessler@vdot.virginia.gov)
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com)
Subject: RE: Zenith Quest at Afton Mountain Traffic Information

Ammy,

Thank you for providing this clarifying information. I know this will be helpful to the Planning Commission as they review the Site Plan.

However, I cannot speak on their behalf as to whether or not this information completely satisfies their need to understand the traffic volumes and patterns. That will necessarily have to be determined by the Commissioners, at the meeting (as I have not yet provided this information to them; it will be mailed out today).

Thanks again for this information.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Monday, October 13, 2014 4:16 PM
To: Jeffery B. Kessler P.E. (JefferyB.Kessler@vdot.virginia.gov); Tim Padalino
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com)
Subject: Zenith Quest at Afton Mountain Traffic Information

Good afternoon gentlemen,

As we discussed last week, both of you were asking for more information about the traffic generated by the site on Crizter Shop Road.

There has been a turn lane warrant analysis prepared by Scott Dunn of the Timmons Group. I have attached a copy that was submitted and approved by VDOT.

For the traffic analysis, Scott computed the Average Daily Trips as 201 vehicles (this includes the anticipated traffic from 30 employees and the truck traffic) He used the ITE Codes of General Light Industry (110) and General Office (710).

Does this satisfy the Traffic Analysis from the VDOT checklist and the Nelson County Zoning Ordinance 13-7-B-2?

Ammy George
Roudabush, Gale and Associates
914 Monticello Road

Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Monday, November 03, 2014 12:09 PM
To: 'Resort Reservations'; Linda Russell; Harman, Michael (komsinva@gmail.com); mkallen@vaems.org; Rob Goad (robgoad@gmail.com); 'Larry Saunders'
Cc: Stormy Hopkins
Subject: FW: Zenith Quest: Major Site Plan resubmittal

Hello Planning Commissioners,

I'm writing to provide a brief update on the Zenith Quest International "Afton Mountain" Major Site Plan.

Essentially, the applicant team does not plan to resubmit revised site plan materials for the November 19th meeting. In recent correspondence (contained below), Ms. Ammy George of Roudabush, Gale, and Associates indicated that ZQI wishes to wait on revising and resubmitting their Major Site Plan until after they receive review comments from Virginia DEQ (relating to stormwater management, and the state requirement to obtain VSMP permit coverage for this project).

You may read Ammy's comments (below); but I did just want to briefly note that ZQI will not be re-submitting revised materials for this upcoming meeting, and will instead attempt to get everything assembled and submitted for the December meeting.

Please let Stormy or I know if you have any questions or any need for clarification, assistance, etc.

Thank you; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Monday, November 03, 2014 12:03 PM
To: 'Ammy George'
Cc: Stormy Hopkins; Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest: Major Site Plan resubmittal

Okay, I understand that decision and think that timing is perfectly fine (from the County / PC perspective). I will relay this update to the Planning Commissioners, so that they're aware of the applicant's intentions with respect to timing, sequence, etc.

Thanks very much for the quick response; I appreciate the update, and we will proceed with the assembly of this month's meeting packet / agenda sans Zenith Quest resubmittals.

Thank you once again --- and please contact me if you have any questions or would like any guidance, at any point between now and the next PC review.

Sincerely,
Tim

Tim Padalino

[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Monday, November 03, 2014 12:00 PM
To: Tim Padalino
Cc: Stormy Hopkins; Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest: Major Site Plan resubmittal

Hi Tim,

I have discussed our timeline with Ray, the representative for Zenith Quest, and we are not going to resubmit the plans until I have received the comments from the DEQ. I spoke with them this morning, and they just started to review the plans. This also gives us time to produce the architectural drawings the Planning Commission needs. We may be able to submit the revisions by the end of the month for the December PC meeting.

Ammy

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Monday, November 03, 2014 11:49 AM
To: Ammy George
Cc: Stormy Hopkins
Subject: Zenith Quest: Major Site Plan resubmittal

Hi Ammy,

Greetings from Lovingston. I'm writing to inquire about the status of the Major Site Plan materials for the ZQI project.

Stormy and I had anticipated receiving the revised drawings last Friday (Oct. 31st); per my recollection of our previous communications, that was the deadline for re-submitting the revised Site Plan materials in order for them to be included on the November PC agenda.

We haven't sent out the PC meeting materials packets, yet; so if you still intend to have the revised materials, etc. reviewed by the PC on Nov. 19th, please write or call with an update on the status of those resubmittals. We will do whatever we reasonably can to get everything included in the November meeting packet.

Thanks in advance; sincerely,

Tim

Timothy M. Padalino
Director | Dept. of Planning & Zoning
County of Nelson, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558
80 Front Street
Lovingston, VA 22949

Tim Padalino

From: Tim Padalino
Sent: Monday, November 03, 2014 12:12 PM
To: Steve Carter; Candy McGarry
Subject: FW: Zenith Quest: Major Site Plan resubmittal

Hi Steve and Candy,

Just FYI: Zenith Quest will not be resubmitting revised Site Plan materials for re-review at this month's PC meeting (on Wednesday the 19th). Instead, ZQI now intends to resubmit the revised materials in time to be included on the December PC agenda.

I just wanted you to be aware of this recent change in their approach / timing, since this ZQI project has generated some interest from members of the public and also from members of the BoS.

Thanks; and please let me know if you have questions about the resubmittal, the timing/sequence, next steps, etc.

Tim

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Monday, November 03, 2014 12:09 PM
To: 'Resort Reservations'; Linda Russell; Harman, Michael (komsinva@gmail.com); mkallen@vaems.org; Rob Goad (robgoad@gmail.com); 'Larry Saunders'
Cc: Stormy Hopkins
Subject: FW: Zenith Quest: Major Site Plan resubmittal

Hello Planning Commissioners,

I'm writing to provide a brief update on the Zenith Quest International "Afton Mountain" Major Site Plan.

Essentially, the applicant team does not plan to resubmit revised site plan materials for the November 19th meeting. In recent correspondence (contained below), Ms. Ammy George of Roudabush, Gale, and Associates indicated that ZQI wishes to wait on revising and resubmitting their Major Site Plan until after they receive review comments from Virginia DEQ (relating to stormwater management, and the state requirement to obtain VSMP permit coverage for this project).

You may read Ammy's comments (below); but I did just want to briefly note that ZQI will not be re-submitting revised materials for this upcoming meeting, and will instead attempt to get everything assembled and submitted for the December meeting.

Please let Stormy or I know if you have any questions or any need for clarification, assistance, etc.

Thank you; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Monday, November 03, 2014 12:03 PM
To: 'Ammy George'
Cc: Stormy Hopkins; Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest: Major Site Plan resubmittal

Okay, I understand that decision and think that timing is perfectly fine (from the County / PC perspective). I will relay this update to the Planning Commissioners, so that they're aware of the applicant's intentions with respect to timing, sequence, etc.

Thanks very much for the quick response; I appreciate the update, and we will proceed with the assembly of this month's meeting packet / agenda sans Zenith Quest resubmittals.

Thank you once again --- and please contact me if you have any questions or would like any guidance, at any point between now and the next PC review.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Monday, November 03, 2014 12:00 PM
To: Tim Padalino
Cc: Stormy Hopkins; Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest: Major Site Plan resubmittal

Hi Tim,

I have discussed our timeline with Ray, the representative for Zenith Quest, and we are not going to resubmit the plans until I have received the comments from the DEQ. I spoke with them this morning, and they just started to review the plans. This also gives us time to produce the architectural drawings the Planning Commission needs. We may be able to submit the revisions by the end of the month for the December PC meeting.

Ammy

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Monday, November 03, 2014 11:49 AM
To: Ammy George
Cc: Stormy Hopkins
Subject: Zenith Quest: Major Site Plan resubmittal

Hi Ammy,

Greetings from Lovingston. I'm writing to inquire about the status of the Major Site Plan materials for the ZQI project.

Stormy and I had anticipated receiving the revised drawings last Friday (Oct. 31st); per my recollection of our previous communications, that was the deadline for re-submitting the revised Site Plan materials in order for them to be included on the November PC agenda.

We haven't sent out the PC meeting materials packets, yet; so if you still intend to have the revised materials, etc. reviewed by the PC on Nov. 19th, please write or call with an update on the status of those resubmittals. We will do whatever we reasonably can to get everything included in the November meeting packet.

Thanks in advance; sincerely,

Tim

Timothy M. Padalino
Director | Dept. of Planning & Zoning
County of Nelson, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558
80 Front Street
Lovingston, VA 22949

Tim Padalino

From: Tim Padalino
Sent: Wednesday, January 14, 2015 3:41 PM
To: 'Ammy George'
Subject: RE: Comment Response Letter

Ammy - - -

Another question as I prepare the staff reports: will you please provide me with a PDF copy of the building plans and elevations?

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, January 14, 2015 1:03 PM
To: Tim Padalino
Subject: RE: Comment Response Letter

You're welcome.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Wednesday, January 14, 2015 12:30 PM
To: Ammy George
Subject: RE: Comment Response Letter

Thanks, Ammy. I'll ensure you receive a copy of my review comments for this revised set of drawings, once I've typed them up. As discussed at today's review meeting, they primarily involve the request for additional screening (vegetation) in connection with the parking area and loading area.

Thanks again for getting me this material in Word format ... very helpful.

Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, January 14, 2015 12:02 PM
To: Tim Padalino
Subject: Comment Response Letter

Hi Tim,

Here is a the comment response letter that I wrote to you. Thank you for the positive feedback this morning and all your coordination in this project.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Wednesday, January 14, 2015 4:07 PM
To: Kent, Kenneth (VDFP); David Thompson
Cc: Stormy Hopkins
Subject: FW: Zenith Quest Follow Up
Attachments: Zenith Quest Site Plan.pdf

Mr. Kent,

Greetings from Nelson County. I'm writing with regards to a Site Plan that the Nelson County Planning Commission will be reviewing at their upcoming January 28th meeting.

Specifically, the County has received a proposal seeking approval for the construction of a new 80,000 SF warehouse, which will primarily involve the storage of ammunition, as well as the "light assembly" of firearms.

Have you received any information on this project, other than what David Thompson provided in his email of 8/20/2014 (below)?

I would like to discuss this project with you at your earliest convenience, as the Site Plan Review Committee members have recently been asked questions regarding access for fire apparatus and related public safety questions. With respect to the scale of the project and the nature of the materials being stored / shipped, I want to ensure the County is doing its due diligence with regards to understanding the fire code and any/all other considerations pertaining to public health and safety.

Please let me know your thoughts; and also let me know if you need access to the latest Site Plan drawings. You can access the plans electronically anytime (without a password) using the following instructions from the applicant:

The electronic file of the plan is too large to send via email, so you can download a copy of "Zenith Quest Site Plan 12292014.pdf" from Dropbox with this link -
https://www.dropbox.com/sh/nqmb7rgp78w7n20/AAAZd5QtA0vjBN8sH6Jvuhtga?dl=0

Thank you very much for your time and attention thus far, and thank you for any assistance you may be able to provide Nelson County; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: David Thompson
Sent: Wednesday, August 20, 2014 7:35 AM
To: Kent, Kenneth (VDFP)
Cc: Tim Padalino
Subject: FW: Zenith Quest Follow Up

Ken,
Good morning, hope things are going well for you. They are burning me out around here since I got back from my vacation at Frisco NC.

I am forwarding you this email. Is there a time when we can get together to discuss these items? Usually an RDP or design company asks these questions after giving me preliminary plans so I can review their work. I am not sure I even know where to start at; since answering a specific question below might come back and bite me. Mix occupancies and an **H use group** could change everything including flows, sizing and spacing of sprinkler heads. All we have is sq ft. no plans with the number of heads, hazards or what hazard of inventory, height and amount of inventory. I really think it is to early even to comment on just a site plan, but I will leave that up to you if you can offer any help to these questions.

Thanks,
David

NELSON COUNTY, VIRGINIA
David L Thompson
Building Official, CBO
Department of Inspections
P.O. Box 558
Lovingston, Virginia 22949

Phone # 434-263-7080
Fax # 434-263-7086

E-mail messages may be subject to FOIA

From: Tim Padalino
Sent: Friday, August 15, 2014 1:37 PM
To: David Thompson; Debbie Harvey
Cc: Stormy Hopkins
Subject: FW: Zenith Quest Follow Up

Hi David,

The "pre-applicant" from this month's Site Plan Review Committee meeting, named Zenith Quest International, has provided the following questions for you and the Fire Marshall to respond to (see below).

I have also attached a very preliminary Site Plan drawing (which we received yesterday, after the Site Plan Review Committee Meeting). It may be helpful for reference.

Please review their requests, and follow up directly with them (and please copy Stormy and I, as well) whenever you are ready to provide them guidance.

Thanks in advance!
Tim

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Friday, August 15, 2014 1:34 PM
To: 'Ammy George'
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com); Stormy Hopkins
Subject: RE: Zenith Quest Follow Up

Thanks very much, Ammy.

I will forward these inquiries to David Thompson, Building Code Official, and request that he also communicate with the Fire Marshall for our region.

Thanks again, and please let me know if the County can provide any assistance and/or guidance over the coming weeks, as you prepare the Site Plan for submission.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, August 13, 2014 2:52 PM
To: Tim Padalino
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com)
Subject: Zenith Quest Follow Up

Tim,

Thank you for meeting with us today. As you suggested, I am including the questions that I have about the fire access around the building and the fire flow requirements.

This is for an 80,000 sf warehouse building (one-story) along with 10,000 sf of office (2-story); both sections will have sprinklers. (The site plan is attached.) The warehouse will be used primarily for light assembly of gun parts with storage of cleaning materials as part of the building's functions. The site will have a well, as it has no access to public water.

- What is the Use Group for the building?
  - What are the building requirements for that Use Group?
- What are the requirements for fire access?
  - Would we be able to utilize Family Lane for fire access if necessary?
- What is the fire flow required for Use Group?
  - Volume and duration?
  - Any special requirements for sites with wells?

If you have any questions or comments, please feel free to contact me.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Thursday, January 15, 2015 10:10 AM
To: 'Resort Reservations'
Subject: RE: Zenith

Hi Phil,

Thanks for your message. Good questions …

I've reached back out to "Virginia Department of Fire Programs – Western Division Assistant Fire Marshall" Kenneth Kent and requested that he please review the plans and provide comments, with respect to compliance with fire code(s). It's possible that the applicant shave been working with the appropriate officials and incorporating their comments into the revised plans; but if so, I've not been kept aware of any such research / refinements.

I've also reached back out to Nelson County Emergency Services Coordinator Jaime Miller to request that she review and comment on the proposed project, with respect to its implications for local health, safety, welfare, etc. and the resulting implications for emergency management planning.

Regarding ZQI's ability to use Family Lane, Jeff Kessler previously provided this note:

From: Kessler, Jeffery B., P.E. (VDOT) [mailto:JefferyB.Kessler@VDOT.Virginia.gov]
Sent: Friday, November 07, 2014 4:33 PM
To: Tim Padalino
Cc: Clark, Matthew D. (VDOT)
Subject: RE: Family Lane in Afton

Hi Tim,

According to our records, Family Lane is not part of the our secondary system of highways. In order to determine if a public right of way (not state maintained) exists you will need to check the plat or deed records in the Court House.

I will contact Ammy George and notify her that this question of emergency access (utilizing Family Lane, a private road) has not been satisfactorily addressed; and that they need to provide some documentation explaining their right to use that private road for emergency access. The obligation is on the applicant to satisfy those questions, as opposed to the County paying Phil Payne to do that due diligence on behalf of the applicant.

I'll forward you the emails to Kenneth Kent and Jaime Miller. I hope to hear from them soon, as there are few work hours left before the staff reports need to be distributed … perhaps you can follow up with them if we don't receive a response soon?

Tim Padalino
[434]-263-7090

From: Resort Reservations [mailto:proulx@cfw.com]
Sent: Wednesday, January 14, 2015 5:20 PM
To: Tim Padalino
Subject: Zenith

Hi- Linda just gave me an update on the site review meeting this morning. She raised 2 questions that we might want Phil Payne's opinion on. Does the county have any responsibility and/or liability to get a written statement from someone (state fire marshall? Hazmat people?) that the warehouse does not pose any unusual risk for fire or explosion? Can he confirm that emergency access on Family Lane (private road) is legal?

Any thoughts on that? Thanks, Phil

http://www.rentalsatwintergreen.com

http://www.commonwealthpropertyrentals.com

Tim Padalino

From: Tim Padalino
Sent: Thursday, January 15, 2015 2:18 PM
To: Ammy George (AGeorge@roudabush.com)
Cc: Stormy Hopkins
Subject: ZQI Review Comments re: 1/14 Site Plan Review Committee meeting
Attachments: Site Plan Review_2015-0114_Comments_App Responses_Second Comments.pdf; Zenith Quest Site Plan 12292014_17_Landscape Plan_Comments Sketch-TP.pdf

Hi Ammy,

I wanted to provide you with the first look at my review comments stemming from yesterday's meeting. I've attached those written comments, as well as a supplemental "comment sketch," to this message.

I haven't prepared my PC staff report yet, but I expect everything contained in my comments in this review letter will be reflected in that staff report, and reflected again during the presentation to the PC at the upcoming meeting on the 28th.

I did want to get these comments to you as quickly as possible, so that you and Peter can continue the discussions that took place during yesterday's meeting. In particular, some of the priority issues involve:

- landscaping/screening
- building materials / color / finish
- ability to provide secondary emergency access by utilizing Family Lane (a private road)

Please be in touch if / whenever you'd like to discuss the attached materials, if you have any questions or want clarification or simply want to discuss anything. (Please note that County offices are closed tomorrow 16th and Monday 19th.)

Thanks Ammy; sincerely,
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949
http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Tuesday, January 20, 2015 3:38 PM
To: 'Kent, Kenneth (VDFP)'
Cc: David Thompson
Subject: RE: Zenith Quest Follow Up

Hi Ken,

Great --- this is very helpful. Thank you for the clarifying information. I will try to convey this info to the Planning Commission, as it is likely they will ask about these types of issues.

Thank you once more; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Kent, Kenneth (VDFP) [mailto:Kenneth.Kent@vdfp.virginia.gov]
Sent: Tuesday, January 20, 2015 8:38 AM
To: Tim Padalino
Cc: David Thompson
Subject: RE: Zenith Quest Follow Up

Mr. Padalino,

I am in receipt of your email regarding the Quest proposal in Nelson County. I am aware of their proposal and was first contacted by David Thompson regarding the proposed facility. The State Fire Marshal's Office is responsible for enforcement of the Virginia Statewide Fire Prevention Code in localities such as Nelson County, where they do not have a Fire Official. Our enforcement powers begin once a building has been completed and approved by the Building Official and the building is occupied. The Code of Virginia mandates inspections in several types of facilities and any other inspections are usually the result of a complaint. During planning and construction, the requirements for construction are mandated by the Virginia Construction Code, and the Building Official is the enforcing authority.

Thanks,

Ken

Kenneth L. Kent

State Fire Marshal's Office, Western Region
6744 Thirlane Road
Roanoke, VA 24019
(540) 561-7033 Office
(540) 561-7544 Fax
(540) 580-0175 Cell
kenneth.kent@vdfp.virginia.gov
www.vafire.com

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From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Wednesday, January 14, 2015 4:07 PM
To: Kent, Kenneth (VDFP); David Thompson
Cc: Stormy Hopkins
Subject: FW: Zenith Quest Follow Up

Mr. Kent,

Greetings from Nelson County. I'm writing with regards to a Site Plan that the Nelson County Planning Commission will be reviewing at their upcoming January 28th meeting.

Specifically, the County has received a proposal seeking approval for the construction of a new 80,000 SF warehouse, which will primarily involve the storage of ammunition, as well as the "light assembly" of firearms.

Have you received any information on this project, other than what David Thompson provided in his email of 8/20/2014 (below)?

I would like to discuss this project with you at your earliest convenience, as the Site Plan Review Committee members have recently been asked questions regarding access for fire apparatus and related public safety questions. With respect to the scale of the project and the nature of the materials being stored / shipped, I want to ensure the County is doing its due diligence with regards to understanding the fire code and any/all other considerations pertaining to public health and safety.

Please let me know your thoughts; and also let me know if you need access to the latest Site Plan drawings. You can access the plans electronically anytime (without a password) using the following instructions from the applicant:

The electronic file of the plan is too large to send via email, so you can download a copy of "Zenith Quest Site Plan 12292014.pdf" from Dropbox with this link -
https://www.dropbox.com/sh/nqmb7rgp78w7n20/AAAZd5QtA0vjBN8sH6Jvuhtga?dl=0

Thank you very much for your time and attention thus far, and thank you for any assistance you may be able to provide Nelson County; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: David Thompson
Sent: Wednesday, August 20, 2014 7:35 AM
To: Kent, Kenneth (VDFP)
Cc: Tim Padalino
Subject: FW: Zenith Quest Follow Up

Ken,

Good morning, hope things are going well for you. They are burning me out around here since I got back from my vacation at Frisco NC.
I am forwarding you this email. Is there a time when we can get together to discuss these items? Usually an RDP or design company asks these questions after giving me preliminary plans so I can review their work. I am not sure I even know where to start at; since answering a specific question below might come back and bite me. Mix occupancies and an **H use group** could change everything including flows, sizing and spacing of sprinkler heads. All we have is sq ft. no plans with the number of heads, hazards or what hazard of inventory, height and amount of inventory. I really think it is to early even to comment on just a site plan, but I will leave that up to you if you can offer any help to these questions.

Thanks,
David

NELSON COUNTY, VIRGINIA
David L Thompson
Building Official, CBO
Department of Inspections
P.O. Box 558
Lovingston, Virginia 22949

Phone # 434-263-7080
Fax # 434-263-7086

E-mail messages may be subject to FOIA

From: Tim Padalino
Sent: Friday, August 15, 2014 1:37 PM
To: David Thompson; Debbie Harvey
Cc: Stormy Hopkins
Subject: FW: Zenith Quest Follow Up

Hi David,

The "pre-applicant" from this month's Site Plan Review Committee meeting, named Zenith Quest International, has provided the following questions for you and the Fire Marshall to respond to (see below).

I have also attached a very preliminary Site Plan drawing (which we received yesterday, after the Site Plan Review Committee Meeting). It may be helpful for reference.

Please review their requests, and follow up directly with them (and please copy Stormy and I, as well) whenever you are ready to provide them guidance.

Thanks in advance!
Tim

Tim Padalino
[434]-263-7090

From: Tim Padalino
Sent: Friday, August 15, 2014 1:34 PM
To: 'Ammy George'

Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com); Stormy Hopkins
Subject: RE: Zenith Quest Follow Up

Thanks very much, Ammy.

I will forward these inquiries to David Thompson, Building Code Official, and request that he also communicate with the Fire Marshall for our region.

Thanks again, and please let me know if the County can provide any assistance and/or guidance over the coming weeks, as you prepare the Site Plan for submission.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, August 13, 2014 2:52 PM
To: Tim Padalino
Cc: Bill Ledbetter; Ray Miles (ray@zenithquestintl.com)
Subject: Zenith Quest Follow Up

Tim,

Thank you for meeting with us today. As you suggested, I am including the questions that I have about the fire access around the building and the fire flow requirements.

This is for an 80,000 sf warehouse building (one-story) along with 10,000 sf of office (2-story); both sections will have sprinklers. (The site plan is attached.) The warehouse will be used primarily for light assembly of gun parts with storage of cleaning materials as part of the building's functions. The site will have a well, as it has no access to public water.

- What is the Use Group for the building?
  - What are the building requirements for that Use Group?
- What are the requirements for fire access?
  - Would we be able to utilize Family Lane for fire access if necessary?
- What is the fire flow required for Use Group?
  - Volume and duration?
  - Any special requirements for sites with wells?

If you have any questions or comments, please feel free to contact me.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Wednesday, January 21, 2015 12:16 PM
To: Ammy George (AGeorge@roudabush.com)
Subject: ZQI question - Health Department

Hi Ammy,

I received a question today from Tom Eick of VDH. Unfortunately, Tom said he never received his meeting materials packet until just yesterday, and he apologized for not being aware of the meeting last Wednesday and for not attending.

Regardless, can you please comment on his inquiry, as you're able?

I remember reviewing some information regarding wells and septic for the Zenith Quest project. The only thing that this office has officially approved, however, is a permit for a IIIB well. Do you know if an application for a sewage system permit is on the horizon?

Thanks in advance for any info you might have.
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949
http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Wednesday, January 21, 2015 12:39 PM
To: Stormy Hopkins; tom.eick@vdh.virginia.gov
Subject: FW: ZQI question - Health Department

FYI --- I just received this update from the applicant team.

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Wednesday, January 21, 2015 12:36 PM
To: Ammy George
Cc: Tim Padalino; Bill Ledbetter; Jeff Loth
Subject: Re: ZQI question - Health Department

Hi Ammy,

I spoke a few moments ago with Jeff Loth who will be preparing our septic/drainfield permit application.

Please make available to Jeff the current site plans (Dropbox link) so that he may coordinate the sewage permit application with this current site plan.

Per Jeff it should be next week that the sewage permit application will be ready for me to submit.

Thank you.

Ray

Ray Miles

Zenith Quest International

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

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On Jan 21, 2015, at 12:25 PM, Ammy George <AGeorge@roudabush.com> wrote:

> Hi Tim, I am forwarding this to my client, Ray Miles, to get an answer. I have not been involved in the discussions regarding the well and septic system. I will make sure you are also copied on any answer I receive.
>
> *Ammy George*
>
> ---
>
> **From:** Tim Padalino [mailto:tpadalino@nelsoncounty.org]
> **Sent:** Wednesday, January 21, 2015 12:16 PM
> **To:** Ammy George
> **Subject:** ZQI question - Health Department
>
> Hi Ammy,
>
> I received a question today from Tom Eick of VDH. Unfortunately, Tom said he never received his meeting materials packet until just yesterday, and he apologized for not being aware of the meeting last Wednesday and for not attending.
>
> Regardless, can you please comment on his inquiry, as you're able?
>
> I remember reviewing some information regarding wells and septic for the Zenith Quest project. The only thing that this office has officially approved, however, is a permit for a IIIB well. Do you know if an application for a sewage system permit is on the horizon?
>
> Thanks in advance for any info you might have.
> Tim
>
> **Timothy M. Padalino**
> Planning & Zoning Director
> Nelson County, Virginia
>
> phone: [434]-263-7090
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>
> P.O. Box 558, 80 Front Street, Lovingston, VA 22949
> http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Thursday, January 22, 2015 2:13 PM
To: Ammy George (AGeorge@roudabush.com)
Subject: Zenith Quest storage questions

Hi Ammy,

Jaime Miller, the Emergency Services Coordinator for Nelson County, reviewed the Site Plan materials and has the following questions:

Is the ammunition the only hazardous item that will be in the building? Will they have any hazardous chemicals that you are aware of? Other than that I would simply brief my responding agencies and schedule a walk-through with the owner and the responding agencies so they are aware of the on-site hazards, their locations, and the layout of the building once it is complete. We do this with the medical facilities who have hazardous materials, etc.

Jaime D. Miller
Emergency Services Coordinator
County of Nelson
P.O. Box 336
94 Courthouse Square
Lovingston, VA 22949
(434) 263-7048 Phone
(434) 263-7046 Fax

Will you please inquire with Ray and/or Peter to try and answer Jaime's questions (above) prior to the PC meeting next week?

Thanks for your time and attention . . .
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949
http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Wednesday, January 28, 2015 2:09 PM
To: 'Ammy George'
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest storage questions

Hello Ammy,

Thank you for the updated submission(s). No, it is not too late – I'll add the revised landscape plan to the Powerpoint file. Thank you for working to incorporate revisions prior to the PC meeting.

I recognize the security concerns you described in your email. I am confident that everything will work out well with regards to a Site Plan that ensures operational efficiency and safety, and which ensures that the project contains sufficient screening.

Thanks very much; I'll see you tonight. (And we've made every effort to ensure that the correct audio/visual equipment will be present ... this time.)

Thanks once more,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Wednesday, January 28, 2015 1:12 PM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest storage questions

Tim, I hope that I haven't left you with too little time to add a few items to your slide show.

For the Landscape Plan, I reviewed your suggestions and made a few changes; ZQ agrees to the addition of evergreen trees along Rt. 151, a few canopy trees around the parking and loading areas and shrubs along the loading area.

In landscaping the loading and parking areas, I needed to be mindful of the security and employee safety, meaning that no one should be able to hide in the landscaping. The proposed shrubs grow to a maximum of 3' tall and have thorns to dissuade anyone from crouching in or behind them. The grass is ornamental and grows to a maximum of 2' high. The red maples are also a good choice since they have a rounded crown that provides good visibility under the lower branches.

ZQ has declined to add any landscaping next to the building in the loading areas. This is for practical reasons. Landscaping is typically not found in loading areas due to the possibility of creating conflicts with large moving vehicles. Security is also a concern for having landscaping so close to the loading doors for the possibility of creating blind spots for employees working inside near the door ways. Also, there is

little in the way of available space for a root zone in an area that will be compacted in order to create a stable surface for the gravel parking area.

The second attached PDF is an example of the roof color that ZQ will be using.

I can talk to these points tonight.

Ammy George

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, January 22, 2015 2:48 PM
To: Ammy George
Subject: RE: Zenith Quest storage questions

Okay, I'm sorry about the timing. However, if you have a modified landscape plan finalized prior to the PC meeting, it would still be useful to submit it electronically (so that I can review it, be a little more prepared to provide an accurate update, and to also include it in the digital slideshow).

Let me know if that would be possible. Regardless, thanks for the clarification.

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, January 22, 2015 2:37 PM
To: Tim Padalino
Subject: RE: Zenith Quest storage questions

Thanks,

I was just now able to talk with Ray Miles, who is handling this project for Zenith, about the landscaping issues. I had hoped to get an updated landscape plan into the Board members packets. But, since that has passed, I will just come prepared to the meeting to address your concerns.

Ammy George

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, January 22, 2015 2:34 PM
To: Ammy George
Subject: RE: Zenith Quest storage questions

Hi Ammy,

Unfortunately, the packets were distributed yesterday (one week prior to the meeting).

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Thursday, January 22, 2015 2:33 PM

To: Tim Padalino
Subject: RE: Zenith Quest storage questions

Tim, when is the latest that I can get updates to you to include in the packets to the Board members?

Ammy George

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, January 22, 2015 2:13 PM
To: Ammy George
Subject: Zenith Quest storage questions

Hi Ammy,

Jaime Miller, the Emergency Services Coordinator for Nelson County, reviewed the Site Plan materials and has the following questions:

Is the ammunition the only hazardous item that will be in the building? Will they have any hazardous chemicals that you are aware of? Other than that I would simply brief my responding agencies and schedule a walk-through with the owner and the responding agencies so they are aware of the on-site hazards, their locations, and the layout of the building once it is complete. We do this with the medical facilities who have hazardous materials, etc.

Jaime D. Miller
Emergency Services Coordinator
County of Nelson
P.O. Box 336
94 Courthouse Square
Lovingston, VA 22949
(434) 263-7048 Phone
(434) 263-7046 Fax

Will you please inquire with Ray and/or Peter to try and answer Jaime's questions (above) prior to the PC meeting next week?

Thanks for your time and attention . . .
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949
http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Friday, January 23, 2015 9:47 AM
To: Jaime Miller
Subject: RE: Zenith Quest storage questions

Good – I'm glad it will be that straightforward.

And just so I follow correctly (and so that I'm better able to answer the Planning Commissioners accurately): ammunition is not considered a hazardous material?

Tim Padalino
[434]-263-7090

From: Jaime Miller
Sent: Friday, January 23, 2015 9:46 AM
To: Tim Padalino
Subject: RE: Zenith Quest storage questions

Sounds great Tim! That will be all we need for our response to such a facility. Since there are no hazardous materials, it won't require anything special except extra awareness.

Jaime

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: Tim Padalino <tpadalino@nelsoncounty.org>
Date:01/23/2015 9:26 AM (GMT-05:00)
To: Jaime Miller <jmiller@nelsoncounty.org>
Subject: FW: Zenith Quest storage questions

Hi Jaime,

I shared some of your previous questions with the Zenith Quest team, and they provided the following info (below). Hopefully this is helpful.

Let me know if you have any other questions, or if you would like contact info for any of the ZQI team.

Thanks again!
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Friday, January 23, 2015 7:35 AM

To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: RE: Zenith Quest storage questions

Good morning Tim,

Can you pass along this response to Jaime Miller?

Per Ray Miles "Small arms ammunition is planned to be in the warehouse. No hazardous chemicals or other hazardous items are planned for the warehouse." Additionally, they can schedule a tour of the facility after it is completed, via Jaime at for the responding agencies.

Ammy George

From: Tim Padalino [mailto:tpadalino@nelsoncounty.org]
Sent: Thursday, January 22, 2015 2:13 PM
To: Ammy George
Subject: Zenith Quest storage questions

Hi Ammy,

Jaime Miller, the Emergency Services Coordinator for Nelson County, reviewed the Site Plan materials and has the following questions:

Is the ammunition the only hazardous item that will be in the building? Will they have any hazardous chemicals that you are aware of? Other than that I would simply brief my responding agencies and schedule a walk-through with the owner and the responding agencies so they are aware of the on-site hazards, their locations, and the layout of the building once it is complete. We do this with the medical facilities who have hazardous materials, etc.

Jaime D. Miller
Emergency Services Coordinator
County of Nelson
P.O. Box 336
94 Courthouse Square
Lovingston, VA 22949
(434) 263-7048 Phone
(434) 263-7046 Fax

Will you please inquire with Ray and/or Peter to try and answer Jaime's questions (above) prior to the PC meeting next week?

Thanks for your time and attention . . .
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
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http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Tuesday, February 03, 2015 10:26 AM
To: 'Ammy George'
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter; Stormy Hopkins
Subject: RE: Zenith Quest Conditional Approval

Hello Ammy,

Thanks for your inquiry. We're actually just working on this now. Stormy is currently going through the recording of the meeting, to ensure we have the correct language. Once we have that finalized we will send an acknowledgment letter (ASAP).

Thanks,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Tuesday, February 03, 2015 10:25 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: Zenith Quest Conditional Approval

Good morning Tim,

Have you had a chance to write down the conditions set by the Planning Commission that ZQ needs to address prior to approval? Ray and I wrote them down quickly as Linda was speaking, but I want to make sure we have the language correct.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Thursday, February 05, 2015 4:54 PM
To: Ammy George (AGeorge@roudabush.com); Stormy Hopkins
Subject: Nelson County PC motion

Hi Ammy,

Please see the following motion (below) from the PC, regarding the conditional approval of Major Site Plan #2014-005 "Zenith Quest – Afton Mountain."

I had hoped to put this information into formal "acknowledgment letter" format this afternoon; but in lieu of getting you (and Peter and Ray) that final letterhead document, I wanted to at least get you the actual information today. We will return to preparing the more formal acknowledgment letter tomorrow.

Thanks;
Tim

Zenith Quest:

Commissioner Russell made a motion in relation to the Major Site Plan application #2014-005 for construction of an 80,000 square foot storage warehouse, which would be one-story and a 10,000 square foot two-story attached office for storage of ammunition and light assembly of handheld guns. Supporting documents including a nineteen (19) page submittal by Roudabush, Gale & Associates, dated September 19, 2014, revised December 19, 2014; and preliminary building plans submitted by Harman Construction Company dated November 26, 2014, consisting of pages A101 and A201. This project is approved with the following conditions:

1. **The roof and siding colors shall be non-reflective and blend with the surrounding area to reduce impact on designated public overlooks, along Scenic Byways and the Blue Ridge Parkway. Final approval will rest with the Director of Planning & Zoning.**
2. **Additional plantings to soften the overall impact must be provided. Final approval will rest with the Director of Planning & Zoning with advice from the Chairman of the Planning Commission. This should also include particular attention to heavy screening of the dumpster in the front of the warehouse.**
3. **A written clarification should be provided of the availability of Family Lane as a legal access for Nelson County fire department.**
4. **This approval is also subject to final approval by required state agencies, such as, but not limited to the Department of Conservation and Recreation for a VSMP permit, and Health Department for septic and drainfield permits.**

Commissioner Harman provided a second; the vote 5-0.

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949

http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Monday, February 09, 2015 1:48 PM
To: 'hkaya@zenithquestintl.com'
Cc: Ammy George (AGeorge@roudabush.com); Stormy Hopkins
Subject: Nelson County PC (conditional) approval
Attachments: Ack Letter_Zenith Quest_2015-02-09_Signed.pdf; 2015-02-09_Major Site Plan 2014-005 _Zenith Quest_Site Plan Bonding memo.pdf

Hello Peter and Ammy,

I'm writing to provide a formal acknowledgment letter regarding Major Site Plan #2014-005 "Zenith Quest – Afton Mountain." Please see the attached letter; and please let me know if you want to discuss anything contained therein, or if you have any questions or requests for assistance. We're happy to help.

Please also note that we will be sending an original copy of the attached letter to Peter, as the listed applicant. You should receive that letter shortly via certified mail.

Finally, I'll also note that the County has recently clarified the issue of "required site improvements" and "developer's bond" as contained in Zoning Ordinance Article 13, Section 6. As a result, I have new information that contrasts with previous feedback provided to you in my previous review comments. Specifically, there will be no requirement to establish a developer's bond (or letter of credit or other form of security) in connection with the site plan. Please reference the attached letter for more information.

As always, please be in touch if we can provide assistance. Thanks very much; and good luck as you proceed with your project.

Sincerely,
Tim

Timothy M. Padalino
Planning & Zoning Director
Nelson County, Virginia

phone: [434]-263-7090
fax: [434]-263-7086

P.O. Box 558, 80 Front Street, Lovingston, VA 22949
http://www.nelsoncounty-va.gov/departments/planning-zoning/

Tim Padalino

From: Tim Padalino
Sent: Friday, February 20, 2015 11:06 AM
To: 'Ray Miles'
Subject: RE: Zenith Quest Conditional Approval

Hello Ray,

Thanks for your message, and for the update(s). Regarding a good time to meet, I am available on the following:

Monday the 23rd (anytime between 10:30 – 1:00 and 2:30 – 4:00)
Tuesday the 24th (anytime after 11:00)
Thursday the 26th (anytime after 11:00)
Friday the 27th (anytime after 10:00)

I look forward to meeting with you hopefully some time next week; and if you need to push the timing back and look at dates the first week in March, we can do that if you'd like. Either way, I will review the revised landscaping that Ammy provided electronically, and we can roll that review into the overall project discussion involving material colors, emergency access, etc.

Please let me know which date / time works for you; and if you have any questions or want to discuss anything prior to meeting, please just reach out by phone or email.

Thanks Ray! Stay warm in this arctic chill - - -

Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Friday, February 20, 2015 9:40 AM
To: Tim Padalino
Subject: Re: Zenith Quest Conditional Approval

Hi Tim,

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When is a good time for me to meet with you and show you the roof and wall colors chart?

At this same meeting we can clarify exactly what is needed about fire fighting access so this written clarification can be requested from the fire dept re: Family Lane.

Ammy at Roudabush is in contact with you separately about landscaping. We are also still awaiting word from DEQ about some wording on documents, then Ammy will follow up that as well.

Ray

Ray Miles

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

10950 Rockfish Valley Highway
Suite B
Afton, VA 22920

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From: Tim Padalino <tpadalino@nelsoncounty.org>
Date: Tuesday, February 3, 2015 10:25 AM
To: Ammy George <AGeorge@roudabush.com>
Cc: Kutlay Kaya <ray@zenithquestintl.com>, Bill Ledbetter <BLedbetter@roudabush.com>, Stormy Hopkins <shopkins@nelsoncounty.org>
Subject: RE: Zenith Quest Conditional Approval

Hello Ammy,

Thanks for your inquiry. We're actually just working on this now. Stormy is currently going through the recording of the meeting, to ensure we have the correct language. Once we have that finalized we will send an acknowledgment letter (ASAP).

Thanks,
Tim

Tim Padalino
[434]-263-7090

From: Ammy George [mailto:AGeorge@roudabush.com]
Sent: Tuesday, February 03, 2015 10:25 AM
To: Tim Padalino
Cc: Ray Miles (ray@zenithquestintl.com); Bill Ledbetter
Subject: Zenith Quest Conditional Approval

Good morning Tim,

Have you had a chance to write down the conditions set by the Planning Commission that ZQ needs to address prior to approval? Ray and I wrote them down quickly as Linda was speaking, but I want to make sure we have the language correct.

Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Wednesday, March 04, 2015 4:01 PM
To: Ray Miles (ray@zenithquestintl.com) (ray@zenithquestintl.com); Ammy George (AGeorge@roudabush.com)
Cc: Stormy Hopkins
Subject: FW: Zenith Quest Conditional Approval (LANDSCAPING)

Hello Ammy,

I'm writing to follow up with you regarding the most recently revised landscaping plan (dated 2/11/2015) for "Zenith Quest – Afton Mountain Site Plan."

Thank you for revising the landscape plan to introduce the additional red maples, shrubs, and grasses adjacent to the loading area and parking lot; and to introduce additional vegetation (such as the Virginia pines and white pines) along the scenic byway.

More specifically, I am writing to confirm that I accept the referenced landscape plan as satisfying the corresponding condition in the PC's motion for conditional approval of Major Site Plan #2014-005. As such, this condition is now complete.

I will continue to coordinate with Ray regarding the other Planning Commission conditions.

Thanks once again; sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Wednesday, March 04, 2015 12:03 PM
To: Tim Padalino
Subject: Re: Zenith Quest Conditional Approval

Hi Tim,

Thanks for meeting with me Monday afternoon. Here's a summary of my understanding of the process for us to meet the Conditions placed upon our approved major site plan.

1. Roof and wall colors

I'll look to hear from you about the roof color soon as you can.

You have the Butler Mfg color chart as well as the galvalume roof sample I provided. Please do let me know if further info or clarification is needed from me. We are hoping that the original galvalume roof color will be approved , since it is in the color range off white / gray depending on weather conditions (full sun / cloudy). This galvalume undergoes a patina process as it weathers. Also per my communications with Butler Mfg, this original finish is used about 70% of the time in large warehouse structures similar to ours. If any other color will be required, please let me know right away because the extra cost (estimated $60,000 or higher) would need to be considered and somehow offset within the project, and time is of the essence with the Spring construction calendar fast approaching.

For the wall color, my understanding is that the following two colors are acceptable to you for being considered as the final decision, Cool Country Wheat, or Cool Desert Beige. Both are fairly neutral earth tones.

2. Landscaping

For the final landscaping plan, my understanding is that you and Ammy at Roudabush & Gale are in contact about the revised landscaping plan she had submitted for use in the slide show you presented to the Planning Committee in late January, and that you will be concluding this matter shortly.

3. Fire fighting

About Family Lane for emergency fire fighting access, I have emailed David Graves on Monday of this week requesting a letter from Rockfish Valley Fire Dept, if possible in the next two weeks.

4. State agencies

We are awaiting word from DEQ about some wording on our Storm Water Management Agreement, then you'll hear from the appropriate person(s). We received approval of our septic permit. I believe small details are being finalized by Ammy at Roudabush with regard to VDOT and our entrance.

I think these cover all of the Conditions highlighted as part of our approved major site plan. If you hear of something which I have overlooked, please do let me know.

Thanks again.

Ray

Ray Miles

ZQI
ZENITH QUEST
INTERNATIONAL

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From: Tim Padalino <tpadalino@nelsoncounty.org>
Date: Monday, March 2, 2015 9:27 AM
To: Kutlay Kaya <ray@zenithquestintl.com>
Subject: RE: Zenith Quest Conditional Approval

Hello Ray,

Thanks for the follow-up message. Yes, let's meet this afternoon at about 2:00. I've got it on my schedule, and I'll plan to see you here in Lovingston this afternoon.

Thanks again,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Saturday, February 28, 2015 3:38 PM
To: Tim Padalino
Subject: Re: Zenith Quest Conditional Approval

Hi Tim,

Sorry I missed your phone call on Friday.

Could we meet after lunch on this coming Monday, March 2, at about 2:00pm at your office?

Ray

Ray Miles

Zenith Quest International

O 434 202 7790
F 434 202 7792
M 434 996 5213
ray@zenithquestintl.com

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On Feb 20, 2015, at 3:32 PM, Tim Padalino <tpadalino@nelsoncounty.org> wrote:

> That sounds good Ray. Enjoy the weekend,
> Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Friday, February 20, 2015 2:48 PM
To: Tim Padalino
Subject: Re: Zenith Quest Conditional Approval

Thanks Tim, I will plan to give you a call early next week to set the time based on your schedule. Thanks again.

Ray

Ray Miles

<image001.png>

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Ammy George
Roudabush, Gale and Associates
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434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Wednesday, March 04, 2015 4:34 PM
To: 'Ray Miles'
Cc: Stormy Hopkins
Subject: RE: Zenith Quest Conditional Approval

Hi Ray.

You're certainly welcome; I enjoyed meeting with you and discussing the details of the ZQI project and the remaining details/conditions. And thanks for your thoughtful follow-up message (below).

I'll provide my response to the four conditions as follows:

1. Yes: regarding the wall color, and per our conversation, either the "cool country wheat" or "cool desert beige" are acceptable, as they are both natural tones / earth tones and do not majorly contrast with the surrounding landscape. I understand either of those colors would also meet the preferences of ZQI, as you described them to me.

   Regarding the roof color, I understand the situation with the Butler Building roof automatically coming in the "Galvalume" material. And I recognize your position that the Galvalume material is gray, although "silver" might more accurately represent the bright nature of that material.

   However, after carefully considering the different variables – including the additional cost – it seems like the critical issue is not necessarily the color but the finish (and more specifically, the reflectivity of the finish). Consider the language approved by the Planning Commission in their first condition: "The roof and siding colors shall be non-reflective..." Even if the Galvalume will eventually develop a patina, it would start out being quite reflective, and it is admittedly unclear how much patina affect will occur, and over what time frame.

   Therefore, I have to honor that first condition and require that the roof be finished with a roof color of your preference. The unfinished Galvalume will not be compliant with the "non-reflective" requirement. Beyond requiring that a paint finish be applied, I am open to you proposing a specific color. In my opinion, the colors that would best satisfy the PC condition would be either the "cool shell gray" or "cool emerald green." Please let me know which color you propose for the roof.

2. Regarding the landscape plan, I believe you received a copy of my acceptance of the revised landscape plan. Thank you very much for having Ammy of Roudabush & Gale respond so successfully. The landscaping will go a long way towards screening the industrial uses and structures, and towards making the project look attractive from the public right of way.

   Please let me know when the landscape installation is scheduled, so that I can conduct a site visit and confirm everything upon its completion.

3. Regarding emergency access via Family Lane, thank you for your continued efforts to coordinate with local emergency service providers and first responders. I'll look for correspondence from you, or perhaps directly from Mr. Graves, sometime in the next week or two.

4. Regarding approvals from state agencies, congratulations on the septic permit from VDH. Please just provide a copy of the VSMP "permit coverage" whenever that is obtained from DEQ; I assume a digital copy of their approval

letter will suffice. (I have not yet encountered a similar situation, so perhaps DEQ will copy Nelson County whenever they do issue the "permit coverage"?) And regarding VDOT, they have approved the Site Plan – so whatever permitting you are working on with them seems to be separate and subsidiary to their previous Site Plan approval.

Thanks for your time and attention, Ray. I understand my decision about the roof may be unpopular, but I felt that the unfinished Galvalume would simply not comply with the PC's condition about the roof being non-reflective.

Please let me know if you have any questions or requests for anything, and I'll wait to hear / see an update on the few items identified above.

Sincerely,
Tim

Tim Padalino
[434]-263-7090

From: Ray Miles [mailto:ray@zenithquestintl.com]
Sent: Wednesday, March 04, 2015 12:03 PM
To: Tim Padalino
Subject: Re: Zenith Quest Conditional Approval

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Thanks again.

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Ray Miles

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Date: Monday, March 2, 2015 9:27 AM
To: Kutlay Kaya <ray@zenithquestintl.com>
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Ray Miles

Zenith Quest International

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To: Ammy George <AGeorge@roudabush.com>
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Ammy George
Roudabush, Gale and Associates
914 Monticello Road
Charlottesville, Virginia 22902
434-977-0205 office
434-296-5220 fax

Tim Padalino

From: Tim Padalino
Sent: Monday, March 09, 2015 10:09 AM
To: Stormy Hopkins
Subject: RE: Zenith Quest

Hi Stormy - - -

Regarding Zenith Quest, here are the main points for an update:

- The Major Site Plan (#2014-005) was approved by the Planning Commission, with four conditions attached to that approval.
  - 1st condition = building materials and colors; working with Ray Miles on that; this issue is actively being addressed / resolved
  - 2nd condition = revised landscaping plan; working with Ammy George on that; this was approved/accepted last week
  - 3rd condition = emergency access on Family Lane; Ray Miles is coordinating with Mr. Graves and will follow up this week
  - 4th condition = obtain all necessary state permit approvals; applicants are working on this; the most pertinent remaining approval (for Jason's attention) will be Virginia DEQ approval for the stormwater management plan

- So the only condition that will affect the earthworks / grading would be the Virginia DEQ approval for stormwater management plan. Otherwise, the project has successfully obtained local approvals for the site plan and for the E&S control plan.

- Jason will have to work with David on pulling permits, establishing an E&S / SWM bond, etc.

- There will be no "developer's bond" required from the Planning & Zoning Department. This is probably a surprise to Jason, since the last time I spoke with him about the Zenith Quest project (in December or January?), we were enforcing the developer's bond stuff. But now we aren't. So that is one major item that has recently been eliminated for this project.

Okay this should do it for an update on ZQI. Thanks for offering to coordinate with Jason. I'm happy to discuss this with him if you prefer, or at his request – just let me know. Thanks!

Tim

Tim Padalino
[434]-263-7090

From: Stormy Hopkins
Sent: Thursday, March 05, 2015 9:49 AM
To: Tim Padalino
Subject: Zenith Quest

Hi Tim,

I hate to bother you at home when you are sick!!!

Jason Harvey called the office to ask what he needs to do from a zoning stand point for Zenith Quest. He is going to be doing the ground work for them for the warehouse. He mentioned something about providing an E&S number and/or bond requirement before any work can begin.

If you can give me any details on what he needs, if anything, from us, it would be greatly appreciated. I will get back in touch with him regarding your answers.

Thanks, Tim, and I hope you get some meds and feel better soon. Something cold is great for strep throat...good reason to have ice cream for breakfast! ☺

Stormy

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